

Institutional and economic perspectives on distant-water fisheries access arrangements

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Abbreviations

CECAF Fishery Committee for the Eastern Central Atlantic

CFP The Common Fisheries Policy (European Union)

CMA Catch Management Agreement

CMAC The Convention on Minimum Access Conditions

CMM Conservation and management measure

COFA China Overseas Fisheries Association

COMHAFAT Conférence ministérielle sur la coopération haleutique des États Africains

riverains de l'Océan Atlantique

DfID Department for International Development of the Kingdom of Great Britain

and Northern Ireland

DG MARE Directorate-General for Maritime Affairs and Fisheries (European Union)

DWFN distant-water fishing nation

DWF distant-water fishing fleet

EEZ exclusive economic zone

EJF Environmental Justice Foundation

FAA Fishing access arrangement

FAD fish aggregating device

FAO Food and Agriculture Organization of the United Nations

FFA Pacific Islands Forum Fisheries Agency

FIP Fisheries Improvement Project

FiTI Fisheries Transparency Initiative

FSMA Micronesia Arrangement for Regional Fisheries Access

FYP Five-Year Plan (China)

GRT gross registered tonnage

ICCAT International Commission for the Conservation of Atlantic Tunas

ILO International Labour Organization

IMF International Monetary Fund

IOTC Indian Ocean Tuna Commission

ITLOS The International Tribunal of the Law of the Sea

IUU Illegal, unreported and unregulated (fishing)

JICA Japan International Cooperation Agency

LDAC Long Distance Fleet Advisory Council

MARA Ministry of Agriculture and Rural Affairs (China)

MCS monitoring, control and surveillance

MoFAD Ministry for Fisheries and Aquaculture Development (Ghana)

MSC Marine Stewardship Council

MSR Maritime Silk Road Initiative (China)

MSY maximum sustainable yield

NGO non-governmental organization

ODA Official development assistance

OECD Organisation for Economic Co-operation and Development

OFCF Overseas Fishery Cooperation Foundation (Japan)

OPRT Organization for the Promotion of Responsible Tuna Fisheries (Japan)

PAE Party allowable effort

PESCAO Improved regional fisheries governance in western Africa (EU Project)

PICT The Pacific Island Countries and Territories

PNA Parties to the Nauru Agreement

PSMA FAO Agreement on Port State Measures

RFMO regional fisheries management organization

SADC Southern African Development Community

SFPA Sustainable Fisheries Partnership Agreement (European Union)

SIDS Small Island Developing State(s)

SMEFF Sustainable Management of External Fishing Fleets Regulation (European

Union)

SPA South Pacific albacore

SRFC The West Africa Sub-Regional Fisheries Committee

SSF small-scale fisheries

SWAPO South West African People's Organisation

TAC total allowable catch

TAE total allowable effort

TCA Trade and Cooperation Agreement between the European Union and the

United Kingdom of Great Britain and Northern Ireland

TKA Tokelau Arrangement

ULT ultra-low temperature

UNCLOS The United Nations Convention on the Law of the Sea

USAID The United States Agency for International Development

VDS Vessel Day Scheme

WARFP West Africa Regional Fisheries Programme

WCPFC Western and Central Pacific Fisheries Commission

WCPO Western and Central Pacific Ocean

Currencies

USD United States dollar

CNY Chinese yuan renminbi

JPY Japanese yen

EUR Euro

NAD Namibian Dollar

Acknowledgments

This report is a follow-up analysis to the "Mapping distant-water fisheries access arrangements" report, which was published in 2022. Constituting a desk study that analyses fishing access arrangements (FAA) from an economic perspective, the goal of this report is to identify opportunities to improve the trade of fisheries-related services, especially for developing countries. The report focuses on specific country case studies in order to analyse the institutional and economic aspects of distant-water FAAs in greater depth.

The Trade and Markets Team (NFIMT) of the Fisheries and Aquaculture Division of the Food and Agriculture Organization of the United Nations (FAO) commissioned this study through the FAO GLOBEFISH project, with the support of the Government of Iceland.

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Executive summary

This report is an extension of the desk study "Mapping access arrangements for distant-water fisheries", published by FAO in 2022.

Expanding upon the initial mapping phase, this stage conducts a more targeted examination of the economic dynamics, policy drivers, and institutional framework of fishing access arrangements (FAA). Six comprehensive case studies of three resource-holding countries or regions – Ghana, Namibia and the Pacific Island Countries and Territories (PICTs); and three resource-seeking countries or regions – Japan, the European Union, and China – are analysed.

The findings of this report are predominately derived from desk research utilizing a variety of scholarly, policy, media, and consultancy sources. Additionally, it leverages the extensive research experiences of the numerous contributors, which are reflected in interview data and partnerships with industry, government, and civil society.

The report employs a variety of empirical data and applies unique analytic techniques to the mapping. This is due to two primary factors. An initial limitation in the empirical research pertains to FAAs themselves, which are deemed to comprise commercially confidential information. Distant-water fishing nations (DWFN) and coastal States may maintain the secrecy of arrangements for a variety of additional causes, such as:

- transparency: FAAs that are accessible to the public may undermine the negotiating strategy of a coastal State to secure more favourable terms; and
- accountability: specific individuals may not wish to be held accountable for the fees paid due to dishonest dealings.

Consequently, data related to FAAs will invariably be inconsistent, as reflected in various sections of this report.

Secondly, apart from the inconsistent data accessibility, the researchers employed diverse analytical methodologies to emphasize the trends or concerns they deemed most significant. To illustrate, the segment referring to China mainly utilizes authoritative government sources translated from Chinese. This approach is taken to gain a better comprehension of the complex legal and policy environment that regulates China's distant-water fishing fleet (DWF). In contrast, the segment related to Ghana is deficient in significant government documentation, and is forced to depend on scholarly sources and external policy documents.

FAAs can be mapped and analysed in various ways depending on the research query, as evidenced by the multiple methodologies of the report. This study makes use of the variance in information accessibility that exists across the various examples to benefit the analysis that it presents. The chapters in the report also underwent a peer review process involving fisheries, economics, and law experts.

1

Policy contents and economic motivations

1.1 Resource-holders and fishing access arrangements (FAA)

The United Nations Convention on the Law of the Sea (UNCLOS) set up a system of access rights to marine resources (UNCLOS, 1982). It also established geographical boundaries for national waters, including countries' territorial waters and the economic exclusive zone (EEZ) for each country. Coastal States were given an array of rights over natural resources within their EEZs: the sovereign rights to access, use, and manage the resources within those limits; determine who can have access and use rights; as well as determine who can have rights to access those resources, and under what conditions.¹

In addition, Article 62 of UNCLOS prescribes that coastal States shall promote the objective of optimum utilization and provide access to any surplus allowable catch to other States. However, coastal States are given exclusive discretion in determining the level of surplus, if any, and the conditions and fees for access. These provisions allowed FAAs between coastal States and distant-water fishing nations (DWFN); or directly with the distant-water fishing fleets (DWF). FAAs provide access to marine resources in exchange for a fee and other modalities determined within the arrangement.

Article 56 of UNCLOS: 'In the exclusive economic zone, the coastal State has: (a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds [...]'.

FAAs have often been criticized for their perceived lack of consideration of sustainability, limited fairness in the fees paid, and a persistent lack of transparency in their negotiations and implementation (Gagern and van den Bergh, 2013; Gegout, 2016; Le Manach *et al.*, 2013). Various reports and academic publications have claimed that access fees have disappointed developing countries because access fees have been unfair, misused, or represent insufficient compensation, given the costly externalities caused by foreign fishing companies. Dependency by national governments on access fees from foreign industrial fishing has been linked to neglect of domestic fisheries development. At the same time, they are also considered a source of dishonest dealings and embezzlement (Tsamenyi and Hanich, 2009). The World Bank and other international organizations have advocated for developing countries to augment their fishing access fee revenues, contending that such funds can catalyse economic expansion and progress (Cunningham *et al.*, 2009).

Coastal States frequently encounter challenges and political-economic conflicts when determining an appropriate access fee. These issues arise due to the influence of powerful DWFNs; local processors aiming to ensure a stable supply of raw materials for employment; competition with other States; concerns from small-scale fishers; and national demands to distribute fishery benefits equitably (Barclay and Cartwright, 2008; Campling and Havice, 2014; Andriamahefazafy *et al.*, 2019).

Section 1 outlines an initial definition of FAAs, relevant UNCLOS rights and obligations, a basic typology of FAAs, and the policy motivations for resource-seekers. It considers how, and to what ends, developing coastal State resource-holders administer fees for access to their EEZs by foreign fishing companies.

This research does not address the normative question of determining the appropriate charges for resource-holding countries or the conditions that should be imposed. It aims to comprehend two interconnected questions:

- to understand how the declared national objectives of resource-holding developing countries have impacted their FAAs' policy formulation; and
- to contemplate the obstacles faced by the resource-holders when attempting to accomplish their goals.

Examining these two questions uncovers significant intricacy within the fisheries industry. National governments have varying policies when designing FAAs, with different structures for fee payments. This reflects the many methods used to regulate access to fish, such as long-term quotas (tradable or non-tradable), auctions, charters, joint ventures, or seasonal permits.

The value of FAAs varies significantly between coastal States and Small Island Developing States (SIDS). In numerous countries and islands, insufficient economic diversification, low tax rates, and private sector expansion mean that FAA revenues account for a significant amount of public revenue.

1.2 Fishing access arrangements

1.2.1 Background

FAAs were founded on the provisions of UNCLOS Part V, which conferred sovereign rights on coastal States over living marine resources within their EEZs. Coastal States are obligated to advance the goal of maximizing utilization while permitting the commercialization of access to any "surplus" capture. Coastal States possess an exclusive discretion that is sufficiently malleable to permit them to determine, for various reasons, that no surplus is accessible to other countries (Goodman, 2021). Historically, coastal States, particularly developing States that held resources, did not oppose the entry of foreign vessels since this activity was perceived as distributing revenue from stocks deemed underutilized locally (Carroz J. and M. Savini, 1983; Le Manach *et al.*, 2021).

In general, FAAs establish the fees for foreign fishing vessels to operate in an EEZ and define the methods and terms of access to the fishing areas. For instance, the regulations may include the permitted number of fishing vessels under the FAA, designated fishing zones, eligible species, fishing equipment; and additional requirements like reporting obligations, observer presence, satellite monitoring, and other management measures. Access fees can vary in structure and may be based on reference tonnages, effort levels, or the number of authorized fishing days. The tonnage in the Sustainable Fisheries Partnership Agreements (SFPAs) of the European Union does not indicate a quota but is an estimate of the probable annual catch by the vessels. The permitted fishing vessels may not necessarily correspond to the actual number of vessels that fish within the EEZ.

1.2.2 Geopolitical-economy considerations

The report is global and concerned with resource access across national boundaries in the marine fisheries sector ("foreign" FAAs). The modified strategy is predicated on the concept of geopolitical economy, which acknowledges that a constellation of States and corporations influences the resurgence of the global economy, and that interests are typically intertwined, situation-dependent, and contextual, as opposed to being exclusively economic (international business or international economics), or geopolitical (international relations). Geography is a significant factor in the contextualization of these relationships. Consequently, State policies are influenced by intricate networks of social relations that frequently exhibit contradictions and conflicts. Therefore, the policies and strategies of a particular State or distant-water fleet might be incompatible or contradictory. When considering FAAs, for instance, a single resource-holding State may have to reconcile the assertions and concerns of various domestic political and interest groups (those related to food security, conservation, raw material for processing, and foreign investors); as well as regional and international State interests that are in conflict (disputes over the control of fish stocks or maritime boundaries, the promotion of domestic companies, the protection of markets, and the pursuit of raw materials); and competition between transnational interests (multinational companies and non-governmental organizations (NGOs)). This report employs the terms "resource-seeking", and "resource-holding" companies and States to clarify this complexity.

States and resource-seeking companies emphasize that corporations conduct fishing, not States or flags. However, this is with the significant exception of State-owned enterprises, and the vital relationships between States and their domestic businesses are always acknowledged. The methodology of the analysis in this report is therefore distinguished from other access-related research, which typically focuses on indicators or DWFNs. Furthermore, it enables the emphasis on resource accessibility as a critical aspect of business strategy concerning the home, flag, and host States.

Under the UNCLOS, sovereign rights over marine resources in an EEZ are regarded as State property by resource-holding States and companies. These access rights should generally be considered public assets. However, private entities or companies may have been granted them through individual transferable quotas or other mechanisms.

There are numerous legal complexities and conflicts at play here, the majority of which are omitted; however, three are highlighted in this report:

- Access relations in transboundary fisheries are an exceptional circumstance further elaborated upon in the first report (FAO, 2022).
- Contested maritime boundary claims can significantly influence access relations; however, pragmatic reactions are frequently apparent. On many occasions, geopolitical disputes over maritime territory have been halted to accommodate the geo-economic interests of sharing fisheries access.
- The role of territorial waters (12 nautical miles) and their treatment, where often (but not always), distant-water fishing is excluded under first-generation access agreements, can result in tensions in second-generation arrangements, including with local fishers.

1.2.3 A typology of fishing access arrangements

The prior report outlines various criteria for distinguishing across FAAs and organizing them into categories. The axis ranges between reciprocal and non-reciprocal FAAs, usually found between developed countries for reciprocal or "northern" arrangements; and between developed and developing countries for non-reciprocal or "southern" arrangements. FAAs can be either single-species or multi-species. There are two main categories of "southern" FAAs: first-generation and second-generation.

First-generation FAAs entail providing fishing access in exchange for a financial fee. Various approaches are utilized to determine the financial aspect, typically governed by an intricate system of regulations concerning fisheries management; monitoring, control and surveillance (MCS); and enforcement. There are three main types of first-generation FAAs:

- government-to-government, which can be bilateral or multilateral;
- industry association-to-government, which are frequently employed by fleets and may involve various associations representing distinct gear types collaborating to increase their leverage with a coastal State; and

company-to-government through direct licensing, which comprise the less wellunderstood and often most difficult arrangements.

FAAs of the second generation utilize a single mechanism or a hybridization of two overarching mechanisms. The initial mechanism involves providing access, or reduced access, fees to vessels that voluntarily register locally and commit to using local products and services through transshipment or domestic fish landing. The second mechanism involves investing in processing facilities on land in exchange for permission to fish. The operator must make onshore investments through joint venture firms, leading to direct and indirect job creation, spin-offs in ancillary sectors, exports, and technology transfer, amongst others.

Countries can be categorised based on priority, from maximizing rent to prioritizing integrated and diverse industrial growth within the fishing industry. Several countries between the two extremes aim to gain associated benefits, but they face significant constraints, such as small populations and high commercial expenses for implementing onshore processing. These countries typically provide costly incentives to encourage foreign-owned vessels to register under their national flags.

Coupled benefits: Rent maximisation: prioritise sector development optimise economic returns

Figure 1.1 A continuum of resource-holders' economic strategies towards FAAs

Source: Produced by the Authors of this report.

Link access Offer Pure to onshore concessions for revenue maximisers employmen local flagging

It is critical to underscore that countries situated at opposite extremes of the spectrum might not possess dissimilar overarching goals; for instance, in cases where the creation of employment is a top priority. A rent-maximiser prioritizes maximizing returns from fishing resources before determining the most economically efficient method of leveraging that wealth to generate employment. These jobs can be created through fishing, other sectors, or sector-neutral initiatives like education and infrastructure. Countries pursuing coupled benefits generally give precedence to employment opportunities in the fishing, processing or vessel services sectors, irrespective of whether a higher quantity or quality of employment could have been produced elsewhere. There are several reasons why this may be preferred.

Identifying efficient methods to use government income for sustained employment needs complex analysis and institutional capabilities for impartial, high-quality study, which may be lacking. Another reason is that it necessitates the circulation of funds through a sequence of government entities functioning with a relatively open shared goal. This can be particularly difficult for government systems with limited administrative capacity and widespread dishonest dealings. Linking job creation closely to the fishing sector helps establish accountability within a single entity.

1.2.4 Defining and calculating access fees

Access fees, as aforementioned, are essential components of all FAAs. The UNCLOS grants coastal States the right to establish access fees and conditions.² Access fees in this research pertain to the payments made by commercial fishing firms or their governments on their behalf for the rights to extract fish. These payments are typically made in cash, but it can also include contributions in kind, such as supplying fish, investing in infrastructure or transferring skills.

When considering access fee pricing, it is important to begin by examining the resource rent. Standard economic theory has struggled to foresee the complexity of the process due to various political economic and geopolitical aspects, some of which are external to fisheries.

DWFs from East Asia mostly use the rate of return on the landed value of the catch to calculate access revenue. Longline and purse-seine FAAs from the 2000s between DWFs, African and Pacific SIDS, and the Pacific Island Countries and Territories (PICT), indicated a rate of return of 6–7 percent. This fee per tonne is akin to a levy on the marine fish harvested. The information is valid, as operators have reported catching volumes. Loss of revenue related to coastal State fisheries agencies may be inaccurately reported, especially considering the monitoring efforts needed to prevent this practice. DWFs have favoured the rate of return model because operators incur lower costs during subpar fishing conditions. Consequently, coastal States experience fluctuating revenue sources during periods of economic weakness as they assume the risks associated with DWFs.

Other approaches involve a flat fee based on a specific catch limit or reference tonnage and an additional payment for catches above that amount.³ Even though this method enhances budgetary planning, it continues to be plagued by under-reporting, notably when exceeding the quota. The purchase of fishing days, in which a DWF acquires the privilege to fish within an EEZ for a specified period, is the most recent and most significant alternative in the Western and Central Pacific Ocean (WCPO) tuna fisheries. This is also a form of effort control. Employing the rate of return model developed by the Parties to the Nauru Agreement (PNA), the Vessel Day Scheme (VDS) has successfully generated coastal State revenue exceeding 25 percent of the landed capture value.

Art. 62(4). [Part 1] Nationals of other States fishing in the exclusive economic zone shall comply with the conservation measures and with the other terms and conditions established in the laws and regulations of the coastal State. These laws and regulations shall be consistent with this Convention and may relate, inter alia, to the following: (a) licensing of fishermen, fishing vessels and equipment, including payment of fees and other forms of remuneration, which, in the case of developing coastal States, may consist of adequate compensation in the field of financing, equipment and technology relating to the fishing industry.

³ Reference tonnages are found in the SFPA protocols and provide a basis for calculating the fees paid to the coastal State.

Additional payments made by fishing corporations to coastal and small island States may complicate the notion of an access fee. These additional charges comprise:

- administrative fees for obtaining or maintaining eligibility to apply for access fees, including seaworthy certificates. Coastal States of DWFs may impose administrative fees in return for permission to fish in a third country or international waters;
- fees associated with ancillary activities which are linked to fishing activities, including expenses for unloading and transshipping fish at sea, fuel purchases, and bunkering in ports;
- the money levied as a penalty for violating fishing regulations.

This paper primarily focuses on access fees for fishing, but other fees could influence government policies regarding access fee payments. They could also be important in comprehending firms' views towards negotiating access fees. Additional fees can generate substantial government income and may even exceed the amounts received from access fee payments.

1.2.5 Sub-national authorities

Due to their sovereign rights over living resources in their EEZs, national governments typically create, manage, and utilize the access fees concerned. Nevertheless, there are exceptions:

- Sub-national authorities in certain coastal States may regulate the design, administration, and utilization of access fees for commercial fishing. Examples are the United States of America and China. This phenomenon is uncommon in developing countries but applies to larger countries with independent regional administrations. In Peru, the Federal Government in Lima sets an access fee for the industrial anchovy fishery, while provincial governments determine access costs for other fisheries like hake or squid. Efforts have commenced to standardize access fees nationwide (FiTI, 2021).
- Access fees in foreign territories of States can be delegated to territorial administrations for design, administration, and implementation. French Polynesia and New Caledonia are French overseas territories. Although both have the power to issue licenses, they have prohibited foreign vessels from entering their EEZs. Tokelau, a New Zealand colony, licenses foreign vessels through the VDS.
- Regional government authorities may determine the design and implementation of fees, especially for fish stocks that cross or move across numerous EEZs. Regional strategies for establishing regulations on access fees are evident within the PICT. Finding instances of governments pooling profits from access fees is challenging.

1.3 Rights and obligations of coastal States

The UNCLOS prescribes sovereign rights to coastal States over their resources, and they have exclusive rights to determine management limits and access. While optimum utilization prescribes that coastal States shall provide access to any surplus, it is its exclusive right to determine if there is any surplus and what the fees and conditions will be for access to that surplus, in line with national legislation.

The Convention applies jurisdiction (Sections 2, 4, 5, 6, and 7) over three broad maritime zones: zones under sovereignty⁴, zones under sovereign rights⁵, and the high seas⁶ (Tsamenyi and Hanich, 2012). In the context of FAAs, the UNCLOS prescribes coastal States with sovereign rights over their EEZs while promoting optimum utilization for surplus catch, as determined solely and exclusively by the coastal State.⁷

An analysis of nine SFPAs shows that they recognize and acknowledge the sovereign rights of the respective coastal State (Andriamahefazafy *et al.*, 2023). European Union (EU) DWFs are granted a transitory right of access by SFPAs. Notwithstanding, the practice is restricted to a specific number of vessels, a maximum tonnage of fish, and harvestable species; and is governed by particular terms and conditions. All fishing activities regulated by the respective SFPAs are subject to the coastal State's jurisdiction and must adhere to its laws and regulations. The coastal State exercises its sovereign rights by mandating fishing vessels to submit data to it. Similar principles are reflected in the South Pacific Tuna Treaty, which grants transitory access to the EEZ of coastal States and is between the United States of America and specific PICT. Every licensed vessel is required to abide by the domestic legislation of every country within the PICT region. The Convention explicitly states that it shall not affect parties' rights, jurisdiction, and duties under international law (FFA-US MLTT, 2018; para 4:12).

The notion of "surplus" holds significant importance in Article 62 of the UNCLOS. According to this Article, a surplus is a portion of the total allowable catch (TAC) that a coastal State lacks the capability to harvest autonomously. If not harvested by vessels of another State, the surplus would remain in the water (Le Manach *et al.*, 2021). Very few States have effectively established details related to surplus, TAC or harvesting capacity. While stock assessments do occur in the Indian Ocean region, for example, only a few stocks are evaluated, and the corresponding management strategies do not include the development of TACs. (FAO, 2018).

Moreover, when it comes to migratory species like tuna, the coastal State's determination of a surplus frequently coincides with the regional fisheries management organization's (RFMO) implementation of management measures and assessment of stocks. Therefore, it is intricately connected to multilateral decision-making concerning the entire stock.

⁴ Encompassing internal waters, archipelagic waters and territorial seas.

⁵ EEZ and the continental shelf.

⁶ All parts of the sea that are not included in zones under sovereignty or sovereign rights.

Art. 62(1). The coastal State shall promote the objective of optimum utilization of the living resources in the exclusive economic zone without prejudice to article 61. Art. 62(2). The coastal State shall determine its capacity to harvest the living resources of the exclusive economic zone. Where the coastal State does not have the capacity to harvest the entire allowable catch, it shall, through agreements or other arrangements and pursuant to the terms, conditions, laws and regulations referred to in paragraph 4, give other States access to the surplus of the allowable catch, having particular regard to the provisions of articles 69 and 70 [Landlocked and geographically disadvantaged states], especially in relation to the developing States mentioned therein.

Nevertheless, all bilateral FAAs are founded upon the notion of a surplus, regardless of whether it corresponds meaningfully to the harvesting capacity of the coastal State; is determined by the coastal State within the framework of a multilateral TAC; or is not computed at all.

Although the Convention allows other States to obtain the surplus, such access is strictly regulated by the sovereign rights of the coastal State over living resources in its EEZ, which are accompanied by concurrent responsibilities.⁸ The objectives encompass not only the establishment of a TAC but also the implementation of conservation and management measures (CMM) to safeguard against excessive exploitation while considering the impacts on associated and dependent species; as well as the preservation or restoration of harvested species populations at levels that generate the maximum sustainable yield (MSY), taking into account the best scientific evidence available.

FAAs only allow fishing activities within an EEZ and do not provide a legal claim to the fish or a permanent fishing right beyond the agreed-upon timeframe. FAAs do not involve documentation or assessment of future catch records. No future rights transfer or compensation for future rights has been included in any FAA discussed in this study or the "Mapping Access Arrangements for Distant-Water Fisheries" report.

Under the UNCLOS framework, the coastal State has the authority and duty to conserve and manage fishing resources in its EEZ, and to determine by whom and how they are exploited. This is demonstrated by the fact that the conservation and management of dependent and associated species and the entire population of a given species must be considered and dynamically managed to prevent over-exploitation. This objective would be unattainable should foreign flag States acquire rights to a specific stock portion in exchange for access to the surplus under FAAs.

Moreover, if a coastal State calculates the surplus, it will exhibit variability across various fiscal years. An additional confirmation of the coastal State's continuing rights is the variety of considerations that must be made when determining to whom access will be granted. This implies that the access recipient is subject to change over time based on the extent to which specific issues are relevant. Furthermore, it does not mean rights are transferred irrevocably to a flag State upon granting access.

⁸ Article 56 (1)(a). In the exclusive economic zone, the coastal State has: sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters suprajacent to the seabed and of these abed and its subsoil [...].

Art. 61(1). The coastal State shall determine the allowable catch of the living resources in its exclusive economic zone. (2). The coastal State, taking into account the best scientific evidence available to it, shall ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation. As appropriate, the coastal State and competent international organizations, whether sub-regional, regional or global, shall cooperate to this end.



2

Resource-holder I - Ghana

2.1 Ghana

Ghana was chosen as a typical example widely representative across several aspects. Fish populations in the EEZ are overfished or experiencing overfishing due to weak institutional fisheries management and access relations. Attempts by international institutions to address this issue have mostly been unsuccessful. Escaping this loop is not simple. Ghana stands apart from other West African countries by actively trying to prevent foreign organizations from participating in fishing activities to promote the development of native commercial fisheries. However, there is a significant discrepancy between the policies and their implementation. In a fast-worsening economic crisis, the country's socio-economic benefits from access relations are unfavourable.

Following a brief introduction to the context, concise summaries of the institutions that shape Ghana's FAAs and the role of international donors are provided, along with an analysis of the dynamics of access in the country's tuna and other industrial fisheries. Additionally, this analysis examines three emerging themes: (i) the resource rent; (ii) geopolitics; and (iii) overcapacity and the regulation of illegal, unreported and unregulated fishing (IUU) fisheries.

2.2 The marine fisheries sector

Ghana has a post-independence industrial fishing sector; some 14 000 small-scale canoes; and about 350 semi-industrial fishing vessels, divided between fishing vessels targeting tuna and a more significant number of trawlers focusing on a wide variety of bottom-dwelling and small fish species. In contrast to most West African coastal States, Ghanaian legislation prohibits fishing licenses from being issued to companies entirely owned by foreign entities. This regulation aims to foster the domestication of commercial fisheries, with a specific focus on demersal and small-pelagic fisheries. Despite this, foreign corporations own the majority of industrial fishing vessels operating in Ghana through beneficial ownership. These entities have obtained fishing licenses by founding nationally registered companies in the country in partnership with Ghanaian joint-venture partners.

Ghanaian marine fisheries are frequently portrayed as being in critical condition (Nunoo *et al.*, 2014). Since the late 1980s, fish populations have declined, and many fish species remain depleted due to exploitation, which was exacerbated by the advancements made by other African countries in declaring their EEZs. Ghanaian fisheries, including semi-industrial and industrial small-scale fisheries (SSF), had been involved in extensive regional fishing for decades, extending as far as Senegal in the west and Angola in the south (Lawson, 1968). Despite this, after the enclosure of the seas, the country failed to establish FAAs with other African States, forcing its State-owned fleet to concentrate its fishing efforts within national borders (Atta-Mill *et al.*, 2004). Paired with fleet modernization, this led to a significant rise in fish catches until the mid-1980s, which could not be maintained. Subsequently, despite the closure of some fishing firms, multiple independent evaluations indicate a persistent overcapacity in the national fisheries sector. While attention is mainly focused on commercial trawlers, the strain on fish populations has risen because of the country's growth of artisanal fishing canoes, which has almost doubled from 2000 to 2022. This sector remains dependent on fuel national support, which was introduced in the early 1980s (FiTI, 2023).

The management of fisheries in Ghana is confronted with escalating difficulties in light of the nation's economic crisis. After failing to meet its obligations to international creditors in December 2022, Ghana initiated a comprehensive debt restructuring agreement with the International Monetary Fund (IMF). Reimbursements to foreign creditors have increased to nearly 100 percent of government revenues due to the magnitude of the debt crisis (Pilling *et al.*, 2023). The country is now moving into a phase of severe austerity, marked by significant reductions in government spending and civil service. The effect on fisheries management is inadequately documented, but is expected to be substantial. In addition, by the end of 2022, inflation exceeded 50 percent, leading to a significant increase in poverty levels and surging food prices. This may escalate pressure on the fisheries industry to supply fisheries products for domestic markets. With uneven distribution, the fuel support for the artisanal fisheries sector is now uncertain. Ending that financial support seems to be a need for IMF financing (Adewale, 2023; Owusu and Adjei, 2021).

The financial situation of Ghana has raised questions about the extent to which foreign resource-seekers benefit the national economy. During the global pandemic, the cost of fishing licenses was increased modestly to help fund the deficit of the Government. However, given the need to maximize Government income, the financial contribution of the industrial fishing sector is likely to be scrutinized and revised.

2.3 The institutional framework

The primary law that regulates marine fishing in Ghana is the Fisheries Act of 2002 (Republic of Ghana, 2002), which establishes the over-arching framework for FAAs with foreign companies. This Act was amended in 2014, but only with minor changes. The latest amendment was in 2015 (Republic of Ghana, 2015) to provide additional clarity regarding the procedures that companies must adhere to obtain a fishing license, including the Ghanaian Maritime Authority's obligation to verify the lawful status of fishing vessels. Ministerial decrees operate at a subordinate level to the Fisheries Act and the fisheries regulation. These are routinely produced and encompass determinations about license fees, modifications to authorised fishing equipment, and temporary closures of fishing grounds. Electronic publication of these decrees is uncommon.

According to the provisions of the Fisheries Act, ownership of all fishing vessels registered in Ghana is restricted to the Ghanaian State or Ghanaian citizens. Industrial tuna fishing is an exception to this rule, in which citizens or the State must hold at least 50 percent ownership of nationally-registered vessels. This is due to the EU preferential rules of origin for canned tuna, which stipulate that to qualify as wholly-obtained products and gain duty-free access to the EU market, vessels must be registered, fly a national flag, and have 50 percent national or EU ownership (Campling, 2016). This ownership stipulation constituted a reinforcement of the domestication policy initiated in the early 1960s when the Companies Code Act of Ghana mandated that all corporations maintain a 25 percent ownership stake held by Ghanaian nationals.

While the Fisheries Act mandates that all vessels flying the national flag must be entirely owned by Ghanaian citizens, it does allow for the licensing of foreign-flagged fishing vessels through a bilateral agreement with another government or at the discretion of the Minister of the Ministry for Fisheries and Aquaculture Development (MoFAD). All licensed vessels must land their cargo at ports located in Ghana. Nonetheless, the language of the Act regarding landing obligations also permits ministerial discretion in this regard.

The Fisheries Act established a new Fisheries Commission, a semi-autonomous corporate entity charged with the exclusive oversight of fisheries management, research, and policy implementation. An independent fisheries scientist and fishing industry representatives comprise the Fisheries Commission's governing council. In addition, the Fisheries Act established a Fisheries Development Fund to underpin the operations of the Fisheries Commission, acting as the recipient of all funds generated by the sale of fishing licenses and any asset forfeiture or monetary penalties resulting from litigation against fishing companies. Additionally, international donors and the national authorities may contribute additional funds.

The Minister heading MoFAD leads the national policy for the Fisheries Commission. However, there is some ambiguity between the distinct duties of the Fisheries Commission and MoFAD, leading to bureaucratic and budgetary inefficiencies due to overlapping functions across staff and divisions.

2.4 International donors

Fisheries governance in Ghana receives significant foreign donor support, with major fisheries development programs financed by the United States Agency for International Development (USAID), Norway, the United Kingdom of Great Britain and Northern Ireland, the European Union, and the World Bank. Traditionally, donor assistance has concentrated on enhancing fisheries through vessel construction and improving landing facilities.

The country's largest donor-funded initiative to improve fisheries management began in 2012. A loan of USD 53.5 million was secured from the World Bank for a seven-year fisheries development initiative under the West Africa Regional Fisheries Programme (WARFP). This created a specialized division within the Fisheries Commission, assisted by international technical specialists. The main goal was to enhance the contribution of the fisheries sector to economic growth in Ghana by raising the industry's yearly profits by USD 50 million (World Bank, 2011). The project consisted of sub-components focusing on fisheries governance, such as enhancing transparency, public involvement, and accountability, along with a component aimed at reducing IUU fishing.

The World Bank initiative aimed to decrease the quantity of permitted fishing vessels in all sectors, focusing less on the tuna fishing sector as per the project documentation. The World Bank's project in the small-scale sector aimed to register all canoes with the Government and transition to a quota allocation system, replacing the previously existing open access regime. The industrial trawling sector in Ghana implemented a moratorium on new vessels joining the vessel registry and gradually decreased the number of licenses issued to 40 industrial trawlers. The World Bank imposed conditions in the loan agreement requiring reductions in the industrial trawl fishing to occur for disbursements to continue and the failure to comply could lead to suspension and eventual cancellation of funds. This project was the sole one among West African fisheries-related loans from the World Bank to incorporate such a condition, acknowledging the political-economic restrictions on reform (personal communication, August 2023).

The World Bank-financed project successfully advanced the creation and execution of five-year national fisheries management plans. Parliament approved the most recent five-year plan for the years 2015-2019. The World Bank controversially terminated the project in 2019 despite having previously granted an extension until 2020. The Fisheries Commission and MoFAD failed to decrease the number of licenses granted to the industrial trawling sector, resulting in increased permits during the project implementation. The World Bank project could not achieve other aspects, such as registering small-scale fishing vessels. The project's outcome was deemed "unsatisfactory" (World Bank, 2019). A proposed five-year plan for 2022-2026 is pending approval.

2.5 Fishing access arrangements in Ghanaian waters

Understanding the FAAs in Ghana is most effectively achieved by differentiating between the tuna and non-tuna fishing sectors. Despite sharing specific common themes, there are several variances among them.

2.5.1 Tuna fisheries

The tuna fishing industry in Ghana started in the late 1950s through a collaborative survey between the US-based Heinz Group and the Government to explore tuna fishing prospects. Confirmation of abundant tuna populations, primarily skipjack and yellowfin, led to the establishment of a pole-andline fishery. This fishery is mainly run by Japanese fishing vessels that provide fish to processing facilities set up by Heinz in Tema (Drury O'Neill, 2013; Bortier-Verstraaten, 2002). Pioneer Food Cannery, a tuna processing facility, has operated since the mid-1970s. It has been owned by Mankoadze Fisheries, Heinz, Lehman Brothers, and currently by MW Brands Europe, a subsidiary of Thai Union, the world's largest tuna company with ownership of major European and North American brands (Campling, 2012; Havice and Campling, 2017). Myroc Group, a Ghanaian company, owns a smaller tuna cannery that the State-owned Tema Food Complex Association previously controlled and which was established in 1957. The cannery was sold to Ghanaian investors in the late 1990s. In 2011, Silla Co, a corporation from the Republic of Korea, created a third new cannery named Cosmo Seafoods Company.

These three canning plants manage the bulk of the tuna caught by the Ghanaian fleet. Most of the product is exported globally as whole frozen fish for processing, with a tiny amount sold on the local market. Women, known as "big mammies", are the local economy's primary figures. They act as mediators, offering credit to "fish mammies" (local processor traders) and some pole-and-line fishing vessels that cannot obtain financial services from traditional banks (Drury O'Neill, 2013; Drury O'Neill *et al.*, 2018). Most of the canned tuna is exported to European markets, with a small proportion of Pioneer Food Cannery products being sold in local and nearby markets.

Complicated corporate frameworks are present in the tuna fishing industry. The fleet is mainly composed of Ghanaian-flagged pole-and-line and purse-seine fishing vessels. Determining the precise number of fishing vessels and the companies that own them, is challenging. In 2022, the Government released a MoFAD vessel registration list, which showed ten nationally registered tuna fishing businesses that operate 27 vessels (MoFAD 2022a and 2022b). However, the completeness of this list is still in question. For instance, in late 2021, the Ghana Tuna Association had released a list indicating that 15 Ghanaian firms collectively operate 37 vessels.⁹ Prior to that, in 2018, a Fisheries Improvement Project (FIP) was initiated for Ghana's tuna pole-and-line fishery; this FIP included 37 fishing vessels, but the International Commission for the Conservation of Atlantic Tunas (ICCAT) reported a figure of 35.¹⁰

Ownership of tuna fishing vessels in Ghana is fluid. For example, Thai Union and Myroc divested tuna fishing over the past few years to focus their operations only on canning. Most existing tuna fishing vessels are owned through joint-ventures with East Asian fishing companies.

See https://ghanatuna.org

¹⁰ Accessible from the ICCAT vessel registry database

The Panofi Fishing Company is currently the largest tuna fishing enterprise in the country. It was created in 2002 as a joint-venture by the Republic of Korea fishing company, Silla Co. Panofi runs six purse-seiners and one carrier vessel. Meanwhile, Ghanaian enterprises, Africa Star Fisheries, Laif Fisheries, and Dong Shen Co Fisheries, collectively operate eight nationally registered fishing vessels, four of which are purse-seine vessels. Shandong Zhonglu Oceanic Fisheries Company, owned by the Provincial Government of Shandong province in China, is the foreign partner in all three companies. Most of the vessels previously owned by Thai Union in Ghana were sold to a Chinese business in 2017, as indicated in the ICCAT records of fishing vessels that document company ownership history for registered vessels.

Ghanaian tuna fishing vessels operate regionally in the EEZs of Benin, Liberia, and Côte D'Ivoire.¹³ Foreign-owned vessels registered to corporations in Ghana operate as Ghanaian fishing vessels in other African coastal States. Furthermore, the MoFAD vessel registry lists four active ships flying the Belize flag in Ghana. In partnership with Shandong Zhonglu Oceanic Fisheries, Africa Star Fisheries owns two vessels in addition to the eight vessels registered nationwide. Two companies, Dicha Ventures and Trust Allied Fishing Ventures, each possess one vessel. The historical documentation of these vessels indicates that they have changed ownership multiple times. Initially, they were owned by a Spanish business registered in Belize, then acquired by MW Brands in Ghana through Tema Tuna Ventures, and eventually transferred to their current owners in 2017. It is unclear why these vessels are still registered under the Belize flag since the company that owns them is registered in Ghana.

Despite Ghana's domesticating fishing company ownership policy, European-flagged vessels have been authorised to fish within the country's EEZ. Thirteen European tuna fishing vessels procured fishing licenses from the Ghanaian authorities in 2015, comprising four French and nine Spanish vessels (NFDS *et al.*, 2016). However, no European-flagged vessels are listed on the Government's list of vessels issued licenses in 2022. This could be attributed to the fact that the list solely covers the months of January to July, and it is widely recognised that European tuna fishing vessels concentrate their efforts on Ghanaian waters in the latter part of the year. Nevertheless, it is conceivable that European-flagged vessels are not pursuing tuna within the domestic Ghanaian EEZ.

2.5.2 Non-tuna industrial fisheries

While the trawler fleet is larger than the tuna fleet, the vessels operating in this sector are generally smaller. Even though the MoFAD vessel registry lists 74 industrial trawlers, verifying the accuracy of this data continues to be complicated. The Ghanaian authorities reportedly issued at least two new licenses to a newly registered local fishing company during the second half of 2022.¹⁴

Although classified as bottom-trawlers designed to capture demersal species, many vessels transition to small-pelagic fishing when these species are abundant (Akpalu and Eggert, 2021).

Details of the joint venture in Ghana is provided on the company website of Silla, available at: http://www.sla.co.kr/eng/b csea02 eng.htm

¹² Information can be found on the company's website: http://www.zofco.cn/en/product/yybl/

For example, see the list of fishing licenses issued by the national authorities in Liberia: https://nafaa.gov.lr/wp-content/up-loads/2022/11/UPDATED-LIST-OF-FISHING-VESSELS-SEPTEMBER-2022.pdf

This led to a petition made by national and international NGOs to deny the company licenses, which is available at: https://hen-mpoano.org/wp-content/uploads/2022/07/Open-Letter-to-Fisheries-Minister.pdf

Comprehensive data regarding the trade in fish harvested by the industrial trawling fleet is inaccessible. On the contrary, as documented in multiple reports, a significant proportion of the valuable demersal species is exported to regions such as Asia and Europe. Conversely, Ghana and other West African markets receive the majority of small-pelagic captures. Particular specialized trawlers once fished for prawns in Ghanaian waters; however, this practice ceased in 2012.

All registered industrial trawlers have been under the ownership of Ghanaian companies flying the Ghanaian flag since 2002. Nevertheless, it is widely recognised that these entities function as joint ventures with foreign corporations, with the overwhelming majority being Chinese. This is contentious because, according to the 2002 Fisheries Act, Ghanaian citizens must wholly own all fishing vessels, excluding those engaged in tuna fisheries (MoFAD, 2022a and MoFAD, 2022b).

The ownership of trawlers is distributed among 39 distinct Ghanaian companies, as per the MoFAD list of registered vessels. While some companies possess a single fishing vessel, none own more than five. This indicates that economic concentration is minimal. Nevertheless, a distinct perspective emerges when the foreign parent companies of these entities are examined. Similar to the situation observed in tuna fisheries, a few Chinese-based multinational fishing corporations seem to possess most Ghanaian fishing vessels. According to research conducted by the Environmental Justice Foundation (EJF) on Ghana's fishing industry from 2015 to 2020, eight Chinese multinational fishing companies owned more than 90 percent of the trawlers during this period. However, a few of these companies have since exited the sector (EJF, 2021). Two Chinese companies appear to own more than half of the industrial bottom trawling fleet, according to data from 2022.¹⁵

Information on Ghanaian citizens who own locally registered fishing firms is not publicly available. However, local NGOs and media research indicate that the Ghanaian fishing enterprises registered as vessel owners are subsidiaries of other companies, which many appear to be owned by the same individuals.

There is little information on the contract agreement between foreign fishing businesses and their local partners. Ghanaian proprietors of fishing enterprises are reported to not participate in daily fishing activities. Their primary responsibilities include acquiring licenses for vessels and interacting with fishing authorities. According to reports, certain persons receive a fixed payment for this service, while others may receive a portion of the profits gained from fishing activities.

The establishment of joint venture companies within Ghana's industrial fisheries sector directly opposes the stipulations delineated in the Fisheries Act. The tuna sector requires that fifty percent of the ownership of nationally registered fishing enterprises be held by Ghanaian citizens. In addition, non-tuna fishing vessels registered at the national level must be wholly owned by citizens of Ghana. Nevertheless, these conditionalities have been ignored, as foreign fishing firms publicly possess the majority of bottom-trawling fishing vessels in Ghana through joint venture agreements.

¹⁵ It is not certain which vessels are owned by Dalian Meng Xin, beyond those named with Men Xin. Other vessels linked to this company include those called 'Comforter'.

2.6 Commercial power in Ghanaian fishing access arrangements

Ghana's approach differs significantly from those of other West African countries. The official policy of limiting fishing licenses to Ghanaian-owned firms has led to foreign vessels gaining access to fishing opportunities in the country's EEZ through joint venture partnerships, particularly with companies from China and the Republic of Korea. In the industrial trawl fishery, foreign operators have gained recurring ownership and control rights, while natives with fishing licenses have legal rights (Akpalu and Eggert, 2021; Penny *et al*, 2017). An examination is conducted on three critical aspects of this commercial power dynamic: initially, a substantial decline in the rent that the Government receives from the public resource of marine stocks in Ghana's EEZ; second, the correlation between access and official development assistance (ODA) from distant-water fishing home States; and third, an inability to identify or adequately confront the commercial drivers that contribute to overcapacity and IUU fishing.

2.6.1 The resource rent

There is insufficient information about Ghana's national strategy regarding fisheries access. However, the existing access agreements appear to involve setting relatively modest prices for the fishing business. This could be seen as to keep ground rent low to boost industrial growth, create jobs for sailors and workers in tuna canneries and other processing plants, and increase official tax revenue from the resulting economic activities.

Historical data regarding license fees is unavailable. In 2011, the World Bank reported that the charge for fishing licenses for industrial fishing vessels was USD 35 per gross registered tonnage (GRT), the lowest level in West Africa. Guinea was charging USD 315, while Guinea-Bissau was charging USD 307 (World Bank, 2011). Ghana has been charging less than 10 percent of the fees compared to other countries in the region. Tuna fishing firms allocated more funds for overseas travel expenses for their employees than for tuna license payments (Drury O'Neill, 2013). In 2018, the Fisheries Commission reported that it received USD 474 438 in license fees from 82 vessels in the trawling sector (EJF, 2021). A more recent comprehensive comparative analysis has examined bottom-trawlers bearing the Chinese flag in five West African States. In the case of Ghana, vessels flying its flag were under the control of Chinese-registered corporations (Virdin et al, 2022). The analysis, limited to this specific distant-water fisher, unveiled significant parallels between patterns identified by the World Bank in 2011 and those observed in 2017. It was noted that Ghana consistently levied the least expensive fishing licensing fees in the region, placing it in second place, one spot behind Liberia.

Table 2.1 License fees received from China-flagged bottom-trawlers and fees per vessel tonnage (GRT), by selected West African States in 2017

Coastal state	GRT-licensed	License fees received in USD	License fee (USD/GRT)
Guinea-Bissau	19 689	4 269 323	217
Guinea	12 031	2 129 760	177
Sierra Leone	8 479	2 128 229	251
Liberia	296	7 180	24
Ghana	15 866	581 294	37
Total	56 361	9 115 786	141

Source: Virdin J., Vegh T., Akester S., Chu J., Baio A., Hamilton J., et al. 2022. A snapshot of the economic benefits from foreign bottom trawling in coastal West Africa: A mutually-beneficial trade in services, no winners or extractivism?' *Fish and Fisheries*, 23(5), pp 1070–1082.

In 2020, MoFAD issued a ministerial decree stating that the cost of fishing licenses would increase from USD 35 to USD 200 per GRT. However, due to complaints by fishing companies, a reduction from USD 200 to USD 135 per GRT was made (FiTI, 2023). The MoFAD website does not provide a record of the existing fee structure. Barriers to increased access fees may indicate that the national authorities are in a comparatively weak position regarding generating public funds from the fisheries industry.

2.6.2 Official development assistance (ODA) and geopolitics

China and the Republic of Korea are the two largest distant-water fishing nations (DWFNs) operating in the Ghanaian EEZ, and each provides bilateral ODA to the country. Although the Republic of Korea offers grants and loans to Ghana, fisheries are not included in the programme. On the other hand, China provides fisheries-specific support, such as loans for the building of fish landing sites and support for maritime law enforcement. In 2012, for example, the Government of Ghana and the Chinese Embassy announced that Poly Hon Don Technologies was supplying four patrol vessels for policing the fisheries sector and responding to piracy threats. Poly Hon Don also has a fisheries business, including a fleet of trawlers and a fish processing factory in Mauritania.

China has continued to provide loans for the construction of fish landing sites, including at the beginning of a World Bank project in 2011 (GBC, 2019; personal communication, July 2023). The designated landing sites serve the purpose of SSF, which means that they do not provide direct advantages to Chinese fishing vessels. Establishing a direct correlation between a distant-water fishing operation and the ODA policy is not always possible. Concerning China, the proportion of privately-owned enterprises involved in distant-water fishing in Ghana has increased to around 70 percent from an initial state of dominance by State-owned enterprises (Carolin, 2015).

Republic of Korea (2021) sets out priority actions.

2.6.3 The political economy of overcapacity and IUU fishing

Overcapacity in the industrial trawling fishery was identified as a significant challenge by the Government of Ghana when the World Bank agreed to develop a fisheries reform programme in 2011. In its recommendations, the World Bank proposed a 50 percent reduction in fishing licenses in the trawling sector, aiming to limit them to a maximum of 40, down from the previous count of nearly 100 (World Bank, 2011). Nevertheless, when Ghana produced its five-year fisheries management plan in 2015, this target had been revised to 47 licenses.

During the World Bank initiative, the inability to decrease the number of licenses was a continual source of contention, with political obstacles impeding reform attempts (World Bank, 2019). In fact, the Government of Ghana registered more fishing vessels than the target set in its policy documents for 2022, issuing licenses to at least 77 industrial trawling vessels. The failure to decrease the number of authorized fishing vessels caused the World Bank program to end prematurely, possibly leading to a decrease in MoFAD revenues.¹⁷

However, it is unlikely that this opposition to lessening the number of licenses given to the trawling fleet was motivated by concerns about decreased earnings. The reason for explaining the price increase is to enhance income greatly, even though there may be a decrease in the number of trawling vessels, in line with the fees imposed by other West African countries.

Rather, it may have been due to the safeguarding of commercial interests of fishing companies and their local joint venture partners. The lack of a strategy for implementing a license reduction may have led to uncertainty on which companies would be denied or awarded licenses and the reasons behind these decisions. Implementing a reduction in fishing licenses could have been challenging without this strategy. Possible strategies, such as those seen in other African countries like Namibia, involve either an auction-based system or a selection process based on qualitative factors. The criterion may also include proof of investments made by enterprises in Ghana and the employment advantages. Moreover, enterprises that consistently fail to comply with fishing regulations may have been disadvantaged.

The industrial fishing sector in Ghana has been characterised by numerous reports of significant IUU fishing activities, including incursions into prohibited or restrictive zones, particularly those reserved for SSF; the utilization of banned fishing gear; and inaccurate or misreporting of catches. The actual magnitude of IUU fishing is uncertain, and it is unclear whether Ghana experiences a higher or lower prevalence of IUU fishing compared to other West African countries.

The introduction of the 2015 Fisheries Regulation marked a significant increase in the minimum fines imposed for a range of infractions, indicating that Ghana technically has a punitive system in place to address IUU fishing (Republic of Ghana, 2015). Nevertheless, fishing companies have not been routinely prosecuted for the observed violations due to settling out of court, which enabled them to pay a reduced penalty without disclosing the agreed amount publicly. According to research conducted by the EJF, it was estimated that in 2018, the Government failed to collect USD 18 million in penalties from industrial fishing companies (EJF, 2021). This dilemma may be considered as a consequence of imposing

At the end, the expenditure of the project was less than USD 18 million of what was agreed (World Bank 2019).

excessively high penalties for non-compliance with fishing regulations. The difficulty of imposing sanctions on Ghanaian fisheries highlights the political economy influence. In fact, a political economy analysis undertaken for the Government of Norway in 2018 revealed that each trawler vessel in Ghana's fisheries was linked to politicians, possibly leading to a lack of action against IUU fishing (Akpalu *et al*, 2018).

2.7 Summary

There are notable deficiencies in the approach to FAAs in Ghana. Evaluating this situation remains a topic of debate. The project of the World Bank evaluation concluded that the program's design and execution did not sufficiently account for the political economy of Ghana's fisheries sector and the challenges the Government encountered in carrying out reforms (World Bank, 2019; p 29). Implicit in this perspective is the acknowledgment that conflicts of interest beset the industrial fisheries of Ghana (personal communication). The issues may be causing the authorities to be reluctant to reveal details on the beneficial ownership of fishing enterprises publicly, despite the official need by the MoFAD for fishing license issuance. The study does not cover the financial support given to the beneficial owners of industrial trawlers, especially by the Government of China. This financial assistance may have worsened the problem of overcapacity and prolonged the existence of the fishing fleet despite the seemingly modest resource rent on paper (Sumalia *et al*, 2019; Virdin *et al*, 2022).

The FAAs of Ghana exemplify international institutions' challenges when offering financial aid to heavily indebted countries for programmes that overlook the complex political-economic dynamics in the industrial fisheries sector and its related access relationships.

Box 2.1 The Convention on Minimum Access Conditions (CMAC) for foreign vessels in West Africa¹⁶

The West Africa Sub-Regional Fisheries Committee (SRFC) is an inter-governmental organization comprising seven member States: Cabo Verde, Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone.¹⁹ The annual fish production in the area covered by the SRFC exceeds 1.7 million tonnes, with almost three-quarters of these landings composed of small-pelagic, which are the cornerstone of fish trade in West Africa. Formal and informal trade potential in processed small-pelagic in the region is estimated at 6 000 tonnes in volume and USD 14 million in market value per annum (Ayilu and Nyawung, 2022).²⁰ Smallpelagic fish also represent, on average, 26 percent of the animal protein intake of the region's populations. These stocks are strategic for the area, and the SRFC promotes its sustainable management.

Since 2012, the SRFC States have been bound by the CMAC in terms of authorising access of fishing vessels from non-member States to the available surplus of resources through FAAs (CMAC, 2012). Through this Convention, the SRFC member States commit to ensuring that conservation and management measures are founded upon the most reliable scientific data available. In instances where the availability of data is insufficient or inadequate, the application of precautionary principles is to be employed. These principles are equally applicable to negotiating and signing fisheries agreements, and the CMAC strives to rectify the historical absence of consultation among member States during these negotiations.

The CMAC favours the negotiation of grouped fishing agreements. This supposes that national legislations in SRFC Member Countries should be harmonised with the CMAC on a series of elements, including mandatory embarkment of observers and crew from the region; and management measures, including for SSF (characterisation, fishing authorisation, and registration of pirogues). Furthermore, adopting a regional approach to access is crucial for effectively implementing the FAO Agreement on Port State Measures (PSMA) to combat IUU fishing. This entails harmonising the classification of offenses amongst member States and establishing a comprehensive list of serious violations.

However, the implementation of CMAC has been hindered due to insufficient capacity and political commitment. For example, Article 3 of the CMAC states that access to foreign fleets should be allowed only after consultation with the research institutions of the concerned State. Nevertheless, many of these research centres lack adequate resources, and research vessels and laboratories; and researchers endure challenging working conditions. The Convention also stipulates that embarking observers and local crew is mandatory for foreign fishing vessels targeting shared stocks. However, SRFC member States face difficulties as these vessels do not come to port in each country. Signing grouped fishing agreements could potentially mitigate such issues by including observers and crew in a regional context.

The main challenge lies in the lack of progress towards achieving coordinated fisheries management for the shared stocks of smallpelagic, as mandated by the CMAC. For decades, experts, civil society organizations, and fishing sector organizations, including from the EU, have joined their voices in advocating SRFC led regional management of shared small-pelagic stocks in West Africa (LDAC, 2021b). The resources are deteriorating due to the lack of sustainable and coordinated management, and worsened by the exploitation of small-pelagic fisheries for fishmeal and fish oil production. Using fresh fish to produce fishmeal raises significant concerns amongst all regional stakeholders, especially sardinella, a crucial food source for the local populations.

The International Tribunal of the Law of the Sea (ITLOS) reiterated the necessity for coordinated management. In response to inquiries from the SRFC regarding the responsibilities of States in combating IUU fishing and ensuring the sustainable management of shared stocks, ITLOS reaffirmed that the SRFC member States should collaborate and implement appropriate CMMs to prevent the depletion of shared resources through overfishing (ITLOS, 2015).

Efforts have thus been undertaken to establish a regional framework for effectively managing shared fisheries resources in West Africa. The debate primarily revolves around developing or enhancing an existing organization by granting managerial competencies. In 2018, a proposal was made for the creation of a new RFMO following a recommendation by the Fisheries Ministers of the 22 African States bordering the Atlantic Ocean which make up the member Countries of the Conférence ministérielle sur la coopération haleutique des États Africains riverains de l'Océan Atlantique (COMHAFAT). The objective was to establish a binding international legal framework to promote cooperation amongst African coastal States in identifying and implementing management measures to stop the overfishing cycle (COMHAFAT, 2019).

The European Union, for its part, supports the transformation of Fishery Committee for the Eastern Central Atlantic (CECAF) into a RFMO and is promoting joint initiatives for research and MCS through its SFPAs with countries in the region, as well as aid programmes such as the "Improved regional fisheries governance in western Africa (PESCAO)" project.

¹⁸ A similar initiative on Minimum Terms and Conditions in access arrangements is ongoing under the Southwest Indian Ocean Fisheries Commission (FAO, 2022)

¹⁹ SRFC <u>http://spcsrp.org/en</u>

Ayilu and Nyiawung, 2022. This number is almost certainly an under-estimate given the lack of reliable intra-regional trade data, but also may indicate the difficulties encountered by local fishers trying to trade these products regionally.

3

Resource-holder II -Namibia

3.1 Introduction

Namibia is a sparsely populated country with around 2.5 million inhabitants. Since its independence in 1990, it has established itself as a democratic country under the consistent rule of the Southwest African People's Organisation (SWAPO). Over the years, Namibia has made significant progress, transitioning from a least-developing to a middle-income country. Until 2015, it experienced rapid economic growth, predominantly caused by a booming mining sector. However, since 2016, the country's economy has faced stagnation, mainly due to the sharp decline in global commodity prices. The global pandemic has further exacerbated the situation, with the IMF reporting an approximate eight percent contraction in the economy in 2020 (IMF, 2021). As a result, Namibia now faces a precarious economic crisis, with high levels of foreign debt, increased poverty rates, and economic inequality (UNDP, 2021). In this context, it is crucial to consider the management of the fisheries sector by the Government.

With a long coastline and abundant fish populations, marine fisheries are one of the most important economic sectors for the country, alongside mining and tourism. These fisheries have been widely recognised for significantly contributing to employment and improving food insecurity. The fish export is estimated to represent 15–20 percent of total exports in value. Approximately 16 000 Namibians are employed in fishing at sea or in fish processing factories, constituting a significant portion of the total workforce of around 900 000 people

(ILO, 2021). Nevertheless, Namibia is distinguished by the nearabsence of SSF, except for a few remote fishing communities operating in the far north's estuaries. Throughout history, Namibia has maintained a population concentration that has been situated in areas distant from the desert terrain that characterizes its littoral zone. Moreover, exposed and turbulent coastal waters present additional obstacles for SSF techniques. Namibian FAAs therefore remain unaffected by potential competition and conflict with the local SSF sector, unlike numerous other African countries.

Before independence, the sea surrounding Namibia was subject to intensive fishing activities by industrial vessels from South Africa, Europe, and the Russian Federation with, consequently, a significant decline in fish abundance. Certain species, particularly pilchards, have been unable to recover from this extensive overfishing. Populations of other species, such as hake, are estimated to be roughly 30 percent of their levels in the 1960s and 1970s (Paterson *et al.*, 2013).

Despite inheriting an ocean that has been severely overexploited, Namibia, since its independence, has demonstrated an exceptional fisheries management approach, recognised as exemplary amongst African countries by organizations such as the World Bank, the African Union, and the Department for International Development (DfID) of the United Kingdom of Great Britain and Northern Ireland; and as a positive model of effective fisheries governance for other African countries to follow (SPFIF, 2011; and World Bank, 2004). Namibia's regulations on fisheries access were created in partnership with international fisheries experts, including representatives from New Zealand and Iceland, known for their advanced fisheries management practices. Norway has offered substantial assistance to Namibia post-independence, which includes conducting surveys on fish stocks.

The resulting approach adopted by Namibia in designing FAAs was based on a deliberate reduction of fishing effort, followed by the implementation of long-term quotas informed by scientific studies on fish abundance, which established an annual TAC. This was combined with policies aimed at promoting the growth of a national fish processing industry and ensuring the allocation of quotas that would foster ownership of fishing rights amongst Namibian citizens while reducing foreign ownership, mainly from Spain, South Africa, and Iceland. In 1991, Namibia launched a nationally-owned fishing company called FISHCOR (Manning, 1998). The design of FAAs integrated sustainability goals with progressive national economic growth, in contrast to the inconsistent and disorganised approach seen in many other African coastal States in the 1990s and 2000s. Namibia also refused to accept the European Union's proposal for a bilateral Sustainable Fisheries Partnership Agreement (SFPA) during the 1990s.

Namibia has shown significant accomplishments, such as the expansion of onshore processing, leading to increased job opportunities; the establishment of fishing companies predominantly owned by Namibians; and the successful management of its most valuable fishery, like hake, which is certified by the Marine Stewardship Council (MSC). Moreover, Namibia has been recognised for its effective response to IUU fishing, with the national Fisheries Observer Agency being acknowledged as a centre of excellence by the Southern African Development Community (SADC) in 2019 (Sjöstedt and Sundström, 2015).²¹

However, issues with enforcing laws have been widely reported, especially concerning

Namibia was seen as a leading country in regional and international advocacy against IUU fishing.

ongoing dishonest dealings. Domesticating ownership of fishing rights has been evaluated as causing diminished profits for enterprises having foreign beneficial ownership. New policies in recent years have presented substantial challenges to the original design of FAAs, mainly through the experimental use of auctions for fisheries quotas. There is a significant rivalry between the fishing industry and the Government on plans to develop offshore mining, which could negatively affect the environment and fisheries (Hartman, 2019).

3.2 The commercial fisheries sector

Commercial fisheries in Namibia comprise distinct sub-sectors targeting different species and fishing techniques. Nine fish species are subject to catch quotas.

Regarding market value, the hake fishery stands out as the most important, producing frozen whole fish and processed fish for export markets, predominantly Spain and Northern Europe. The bulk of the hake fishery comprises demersal trawlers targeting deep-water hake, while a smaller number of vessels deploy longlines predominantly targeting the shallow-water sub-species. This longline fleet also targets valuable snoek and kingklip species. In 2020, 58 demersal trawlers and 13 longline vessels were licensed in Namibia.

Licensed vessels in the deep-water trawl sector are registered to more than 20 companies, with some owning multiple vessels and others with only one or two. Most companies engaged in hake fishing are members of the Namibian Hake Association, an industry group representing the sector's interests in policy forums, facilitating research coordination, and serving as the lead organization for MSC certification. All companies are registered within Namibia, and all vessels fly the Namibian flag. Nonetheless, several companies have beneficial ownership linked to foreign nationals or those with joint nationality. Historically, Spanish fishing companies have dominated the Namibian hake industry. Comprehending the beneficial ownership of fishing enterprises in Namibia is challenging because of a lack of transparency and the intricate nature of joint venture agreements.

Industrial trawler fishing for small-pelagic species, including horse mackerel, accounts for the most significant volume of fish catches. This type of fishing is divided between two sectors: mid-water trawling and purse-seine trawling. The mid-water trawling sector uses massive vessels, reaching lengths up to 120 meters long, predominantly focusing on horse mackerel. On the other hand, the purse-seine trawling sector employs medium-sized vessels up to 60 meters long to target anchovy, juvenile horse mackerel, and pilchards specifically. The resulting catch from both sectors is used for canning for human consumption, mainly sold in Africa; as well as for fishmeal and fish oil, which are exported.

Obtaining the latest information on the number of fishing vessels operating in the small-pelagic sector is still a challenge. Approximately 12 large trawlers are estimated to operate in the mid-water trawl sector and a further 35–40 vessels in the purse-seine sector.²²

The number may decrease as older vessels have been decommissioned and replaced with more modern and efficient ones. Determining ownership of these vessels also presents

²² Interview by the author with an independent fisheries consultant in Namibia, October 2022.

difficulties. Nonetheless, Icelandic companies have historically played a significant role alongside the Russian Federation and Chinese fishing companies. Samherji fishing, Iceland's biggest fishing company, has been responsible for the largest catches of small-pelagic in Namibia. This was achieved through charter arrangements with FISHCOR. In response to an extradition request and allegations of dishonest dealings, a senior executive of the company ceased fishing operations and attempted to transfer assets, including fishing vessels (Evans and Unlay, 2020). Other companies fishing on behalf of Namibian rights-holders for small-pelagic fish included the nowbankrupt China Fisheries, a subsidiary of Pacific Andes; and the Russian company Norebo.

Other target species are relatively small but high-value, including crab, lobster and monkfish. Namibia used to have a valuable orange roughy fishery, but during the 1990s, overfishing decimated this population, which has never recovered. Pilchard populations are similarly limited after decades of overfishing, and no quotas have been issued in the past few years.

3.3 Quota allocations - The Namibianization of fisheries

The 'Namibianization' policy has been the foundation for the country's fisheries management policy since the mid-1990s. The "Towards the Responsible Development of the Fisheries Sector" progressive government policy of 1991 established measurable success indicators; and targets, including that by 2000, the sector was expected to employ 20 000 people in fisheries-related activities and generate USD 41 million in government revenues from fisheries.

The overarching aim of Namibianization transcended the mere restoration of fish populations; it comprised two primary pillars:

- to ensure that Namibia controls and owns an increasing proportion of commercial fisheries. The mechanism for transferring ownership from foreign nationals was to positively discriminate in the allocation of fishing quotas in favour of Namibian citizens or to companies with majority shareholding by Namibians; and
- to increase the economic benefits derived from fisheries to Namibians through job creation and to ensure that the fish caught in national waters is landed and processed domestically. This was achieved through financial incentives for fishing companies, such as lower fees for fishing access where fish are landed; and regulations, such as a legal obligation to land fish for some sectors. The Government also incentivised investments in onshore processing facilities and provided support through joint ventures as well as direct government support for some projects.

The allocation system for fishing rights is fundamental to Namibianization. Namibia was recommended to establish a rights allocation system predicated on long-term individual quotas. This likely drew inspiration from the implementation of individual transferable quotas in New Zealand and Iceland, amongst others.

On an international scale, the Namibian approach has been unparalleled. Most quota systems implemented in commercial fisheries aim to reduce the "race to fish" and increase fishers' profits. Furthermore, in 2013, a comprehensive worldwide assessment of catchshare initiatives unveiled that more than 90 percent of such initiatives granted extended

fishing rights to corporations or individuals based on past fishing practices (Lynham, 2013). Remarkably, Namibia maintains the distinction of being the sole country globally to have devised a system of allocation based on individual quotas, which also integrates social and developmental factors. Furthermore, the ultimate goal is to facilitate a transfer of rights from well-established fisheries corporations to groups that have been historically marginalised. Significantly, the quota issuance procedure in Namibia has endeavoured to facilitate the participation of individuals lacking fishing experience in the industry.

The quota system developed in Namibia was first implemented in 1993 and then formalised in the Marine Resources Act of 2000. The utility of this reform process approach is notable in terms of implementing and iterating a system before codifying it; this is in contrast to the unduly formalistic institutional reforms typical of fisheries donors. Namibia's strategy to catch shares is based on open tendering for quotas, which anyone can apply for. However, a set of rules and guidelines are used to favour applicants based on their contribution to Namibianization, including three main principles:

- Namibian citizens or naturalized persons are favoured for allocations over foreigners.
 As companies usually make quota applications, this policy of positive discrimination also favours companies that are majority-owned by Namibians.
- Namibian-owned companies, or companies with a majority of Namibian shareholdings, are provided preferential quotas compared to foreign-owned companies. This includes being allocated quotas for extended periods and paying reduced fees.
- Evidence of employment and corporate social responsibility, including benefitsharing amongst poorer communities, advancing food security, and investments in fish processing facilities, is also considered in the decision-making process.

These principles steer the fisheries sector towards achieving both social and economic development. The overarching ambition is to facilitate a transfer of ownership to Namibian citizens while simultaneously fostering companies that positively impact social and economic development.

Other notable characteristics of this system include:

- There are no formal rules for the transfer of rights. However, a person or company that has been issued a fishing quota is allowed to lease this right to another company with the approval of the Minister responsible for fisheries.
- Applicants for quotas do not have to own fishing vessels. Applicants are obliged to catch the quota assigned to them, but they can do this through chartering vessels owned by other companies. However, payments for quota allocations are to be made irrespective of the catches made.
- Fishing quotas can be modified or taken away by the Minister responsible for fisheries at any time. A quota is, therefore, not a secure right. There are also no formal grievance mechanisms for challenging the decisions of the Minister.
- There is a new round of competitive tendering when a quota expires. Previous owners receive no guarantee or preferential rights with the new round.

- The duration of rights has gradually been extended. During the 1990s and early 2000s, quotas were assigned for two to seven years, with foreign-owned enterprises typically receiving quotas for shorter durations. In the 2000s, rights were extended to five, ten, and 15 years. There has been a long-standing proposal to establish rights for 20 years, but it has not been implemented yet.
- The absence of formal restrictions on quota concentration is crucial. In some countries, governments limit the quota share individuals or companies can own. In the case of Namibia, these provisions are not provided.

A defining characteristic of this fisheries access approach is the high degree of ministerial discretion. According to the Marine Resources Act, 2000, the decision to allocate quotas lies solely with the Minister for Marine Resources responsible for fisheries. Developing a more predictable scoring system for quota allocations has been a topic of discussion for several years, although no concrete steps have been taken towards its implementation. In 2018, a notice was published in the Namibian Gazette during a period of renewing rights initiated by the Government. This notice provided detailed guidelines for decision-making and required applicants for new fishing rights to submit comprehensive information based on eight criteria (Republic of Namibia, 2018). These criteria included beneficial ownership; corporate social responsibility; employment within the companies; salary information; the inclusion of disadvantaged groups such as women, veterans, people with disabilities, and those from economically marginalized communities. Additionally, applicants were expected to demonstrate a commitment or track record of procuring goods and services from previously disadvantaged groups. However, the notice did not clarify how this information would be utilized in allocating quotas.

3.4 Access fees

The outstanding feature of Namibia's approach to managing FAAs has been the Namibianization of fisheries through the preferential allocation of fishing quotas. The Government granted a reduction of fees to companies owned by citizens or those established as joint ventures with minority foreigner ownership. This fee reduction has promoted social and economic change within the industry. The Government has continuously reassessed its approach to access fee design, resulting in the adoption of an auction-based system. This shift moves away from Namibianization and focuses on maximising revenues and generating a public dividend. Namibia is potentially an example of a country transitioning from second-generation to first-generation arrangements.

The Marine Resources Act, 2000, sets up distinct fees for fishing access, which remain essential for revenue management. The primary fees include the quota fee, cost-recovery charges, and vessel license fee. The Ministry for Marine Resources released its annual report in 2013 detailing official revenues from 2007 to 2012 (only aggregated data is accessible beyond this period):

Table 3.1 Namibian Government revenues, in NAD 1 000

Fees	2007	2008	2009	2010	2011	2012
Quota fee	107 218	59 255	68 800	78 500	120 947	109 926
Marine Resource Fund Levy	12 561	12 075	18 733	19 288	14 497	16 424
By-catch	9 639	10 837	8 410	15 972	6 964	6 024
License fee	91	85	86	82	79	131
Total	129 509	82 253	96 029	113 782	142 487	132 505

Source: Ministry of Fisheries and Marine Resources, 2013

3.4.1 Quota fees

Fishery quotas generate the most substantial fee owed to the Government. These quotas are governed by an individualised fee structure, with percentage-based quota fees being assessed on the value of the capture at the time of landing. The Marine Resources Act, 2000, authorises the Minister for Marine Resources to determine the quota charge sporadically. However, the precise fee has never been determined using a strict formula. The purpose of charging fishing companies a "fair price" is substantiated by official policy statements. Although official policy has not clearly defined equitable pricing, a target range of five to fifteen percent of the landing value of the catch was set in the late 1990s.

The full schedule for quota charges was first published in the Namibian Gazette in 2001. The schedule outlined varying fees based on whether Namibians based in Namibia owned the vessels or were flying a foreign flag. Nationally-owned or -registered vessels are charged significantly lower rates compared to foreign-registered vessels. The quota cost for nationally-owned vessels in different fisheries ranges from 3–5 percent of the landed value of the catch. In contrast, foreign-flagged vessels are charged 10 to 15 percent, depending on the fishery.

Additionally, fees differ based on the processing method employed for the fish. Hake caught and brought to shore fresh, known as "wet fish", incurs a lower fee than Hake frozen while still at sea. Reduced fees are established for fish undergoing additional processing on land.

The estimates for the TAC vary substantially from year to year due to the volatile nature of the fisheries industry, resulting in highly variable government revenues. Late payments are also punishable by fines. Furthermore, the Government has encountered challenges in timely fee collection from many fishing companies.

In addition to fees for fish subject to quotas, landed by-catch incurs a substantial additional fee as a deterrent.

3.4.2 Cost-recovery fee

In addition to the quota fees, Namibia also introduced an exceptional measure known as the costrecovery fee.²³

In Namibia, two distinct categories of cost-recovery charges are in effect. The most significant of these is called the Marine Resource Fund Levy. The Marine Resources Act, 2000, mandates that quota fisheries contribute two percent of the value of the landed catch and fifteen percent of the value of the bycatch to the Marine Resources Fund. The Ministry of Marine Resources ring-fences the funds obtained through this mechanism, primarily to conduct stock assessment research. The remaining allocations are intended to cover the expenses associated with other fisheries management functions. The Marine Resource Fund Levy applies this equally to all fishing vessels, regardless of their flag.

Although the Marine Resource Fund Levy is set at two percent of the landed value of the catch, it is difficult to determine how this has been handled in practice and how much fisheries management costs.²⁴ The reported revenues from this fee do not align with the reported income from quota fees and by-catch. Additional research is needed to fully comprehend this aspect, although current data indicates that the Government may have altered the charging system gradually, implementing an increase in 2008. Historical data anomalies may indicate the government's fee collection and penalty payment challenges.

An additional requirement is that every quota holder pays the Fisheries Observer Agency, an autonomous government department distinct from the Ministry of Marine Resources, for the expenses associated with on-board observers. As is typical in many fisheries, an on-board observer fee of 0.9 percent of the value of the landed cargo has been established.

3.4.3 Vessel license fee

Annual fishing license fees must be paid by all commercial vessels in an amount proportional to its size. The fee remains consistent, irrespective of the vessel's flag or ownership status. The relatively low cost of licenses implies that these fees have been regarded as administrative expenses rather than significant sources of official revenue.

3.5 The quota allocation system

Divergent opinions exist regarding the effectiveness of the quota allocation system established in Namibia. The transfer of ownership from foreign-owned to Namibian companies lacked a quantified objective and was merely expressed as a qualitative aspiration. The system's current obstacles can be categorised into two interconnected areas: the allocation of quotas and its subsequent trade.

New Zealand had introduced a cost-recovery charge for its commercial fisheries in the 1990s, which likely acted as an example for Namibia.

For example, a Senior Official at the Ministry of Fisheries and Marine Resources noted in an interview, in November 2022, that the Marine Resource Fund was said to be insufficient to cover the costs of conducting annual stock assessments for all commercial fisheries in Namibia. A budget for stock assessments has not been produced and therefore there is no agreement on what financial resources are needed to complete adequate stock assessments for all fisheries.

3.5.1 The allocation of quotas

The fundamental objective of the approach to managing FAAs in Namibia was to facilitate the transfer of ownership in the fishing industry from foreign companies to Namibians, with the dual purpose of promoting economic development and providing benefits to disadvantaged groups. Nevertheless, the degree to which this goal has been accomplished continues to be a topic of contention (Manning, 1998).²⁵

In July 1993, the initial allocation of fishing quotas was implemented. The Government received 565 applications for specific rights, of which 165 were ultimately granted by the end of the year. The evaluation and selection of candidates were conducted by a consortium comprising Namibian officials and foreign consultants, and the Cabinet granted ultimate approval to the decision.

More than 80 percent of the approved applicants were either Namibian citizens or Namibian entities with no previous involvement in fishing. Nevertheless, specific fishing quotas were allocated to foreignowned enterprises based on their status as employers of many Namibian workers. Quotas were allocated to additional foreign-owned enterprises in exchange for their pledges to establish fresh fish processing facilities. Even though Namibian companies submitted the highest quota applications, the aggregate percentage of quotas allocated to foreign-owned companies was more significant. A hake quota exceeding 40 percent was allocated to three Spanish fishing corporations. Many Namibian applicants were allocated quotas for fish quantities that fell short of the entire landings. As a result, pooling and trading quotas became unavoidable.

Although the initial quota allocation may have been executed to foster economic empowerment, subsequent quota re-distribution processes have been marred by allegations of bribery and nepotism (Melber, 2003). A surge in competition for ownership of fishing quotas has coincided with a dispute over the allocation of such quotas. Since the most recent round of quota allocations commenced in 2018, more than 5 000 applications have been submitted (Intrafish News, 2020). As expected, concerns over the distribution of quotas have become more prevalent.

The Government's continued non-compliance with recommendations to disclose a list of individuals granted quota allocations exacerbates the allocation problem (Immanuel, 2020). Hence, an inherent deficiency in comprehensive data regarding quota ownership exists within the fishing industry.²⁷

The quota allocation process in Namibia has experienced a substantial erosion of credibility, as exemplified by the Fishrot scandal that garnered global attention in late 2019 (Grynberg, Immanuel and Amupadhi, 2023).²⁸ The transaction entailed leasing quotas initially designated for the country's State-owned fishing company to an Icelandic fishing company in exchange for unlawful payments. The scandal's far-reaching consequences strengthened the notion of exploited quota allocations for personal financial benefit.

²⁵ A detailed account of the State's approach to imposing a new fisheries regime during the 1990s was provided by P. Manning.

²⁶ Details of the allocations for foreign companies are provided in Manning 1998, p. 253.

²⁷ Interview with the Chair of the Namibia Hake Association, October 2022.

A book length treatment of the Fishrot scandal provides a detailed account which we do not summarise here, see Grynberg, Immanuel and Amupadhi, 2023.

Following the Fishrot scandal, the Government has issued several declarations affirming that it has effectively prioritised legitimate applications that benefit marginalised populations (Prinsloo, 2021).

3.5.2 Trading of quotas

The allocation of quotas to domestic companies lacking fishing experience constitutes an unprecedented experiment and it neglected the potential responses that international fisheries companies might employ to compensate for this situation.

Namibian authorities expressly prohibit the ability to transfer ownership of individual quotas. The principal objective of implementing this measure was to prevent foreign corporations from amassing quotas through purchasing power owned by Namibian citizens. During the 1990s, however, the majority of Namibian quota-owners were financially incapable of engaging in fishing. They lacked vessels, technical know-how, financial resources, and credit access (Manning, 1998). There was an anticipation of forming collaborative alliances between fishing companies and quota-owners. As mandated by the Marine Resources Act, 2000, proof of the ability to capture quota allocations has been incorporated into the allocation process.

Quota-owners in Namibia, who are unable to capture their quotas, have implemented two primary strategies. One approach entails forming collaborative partnerships with international fishing companies. This generally leads to Namibian quota-owners acquiring the dominant share in newly formed corporations. The second involves fishing companies leasing quotas from quota-owners through charter arrangements. Although foreign corporations have consented to hold minority stakes in joint ventures, disparities in organizational and commercial capabilities have enabled them to maintain control overfishing operations and appropriate economic benefits.²⁹

The allegation that fishing companies have been granted access to fishing quotas at rates below what should be applicable for foreign companies, further contributed to the perception that joint venture arrangements have unjustly benefited foreign companies (Undercurrent News, 2014).³⁰

Foreign fishery companies have employed alternative approaches to acquire quota shares, apart from joint ventures and leasing quotas. During the early 1990s, a tactic implemented was for company executives to obtain dual nationality, and thereby, quotas as Namibian citizens. Foreign fishing companies purportedly obtained quotas in the hake sector associated with ODA provided by foreign governments to facilitate the construction of fish processing facilities (Hopwood, 1999).

Skeleton Coast Trawling, which formed a joint venture with Nautilus Fishing to advocate for the previously disadvantaged people of Namibia, serves as an illustrative case demonstrating this asymmetry. Nautilus Fishing initiated legal proceedings against Skeleton Coast Trawling in 2017, asserting that the latter had engaged in fraudulent financial statement practices to withhold a "fair share" of profits from the former. This case was resolved through arbitration over the course of four years, bringing Nautilus Fishing perilously close to insolvency. In the end, Skelton Coast Trawling reached a settlement with Nautilus Fishing to provide compensation, albeit at a considerably reduced rate compared to the amount initially demanded. The incident was portrayed by The Namibian Times as an illustration of power abuse in the industry. The publication also expressed apprehensions regarding possible partiality within the Namibian legal system, which appeared to favour corporate elites and protect their interests.

According to estimates from 2014, Novanam, a Pescanova subsidiary, acquired hake fishing quotas at the discounted rate that is valid for Namibian-owned enterprises. It was estimated an additional USD 114 million in quota fees over a period of fourteen years would have been accrued if it had been subject to rates that are typical for foreign-owned enterprises.

Simultaneously, foreign fishing companies contend that the stipulation to lease quotas from Namibian quota-holders or form joint ventures with them, has fostered rent-seeking behaviour. These companies have been obligated to remunerate Namibian quota-holders at two to three times the value of the quota.³¹ Consequently, foreign fishing companies contend that their expenses for FAAs are considerably greater than generally acknowledged, while certain quota-holders are amassing extraordinary profits. In Namibia, these individuals who establish companies to obtain quotas, sell them at inflated prices, and do not reinvest the proceeds in the industry or distribute dividends to others, are commonly referred to as "briefcase" quota-owners (Hartman, 2022; Namibian Times, 2021).

In brief, the distribution of quotas to Namibian enterprises, the majority of which lack fishing experience or financial resources to acquire fishing vessels, has generated an intricate and contentious quota trading market. There are ongoing tensions between foreign fishing companies and Namibian quota holders, and it is widely acknowledged that the quota system has favoured a minority of individuals. An apparent conflict exists in highlighting the predatory actions of foreign fishing companies towards their joint venture partners and the abuses of quota trading by Namibian briefcase quota-holders. Both issues may exist simultaneously. Evaluating the scope of these issues is complex, and there could be cases of beneficial joint venture agreements. However, the quota-based system is still highly controversial and attracts criticism of the Government as well as large companies in the fishing industry. Foreign fishing businesses still hold a strong position in the industry and have implemented various tactics to circumvent the Namibianization policy in their favour.

3.5.3 Rebuilding stocks and employment creation

Namibia's success in re-establishing fish stocks and the effective domestication of fish processing are further facets of FAAs in the country that merit further examination.

Namibian efforts to tackle overfishing seem to have produced a mixed outcome. Following independence, the Government of Namibia effectively utilized a scientific methodology to assess fish populations and set reliable fishing quotas. Yearly scientific recommendations were provided to the Minister by a specialised Ministry for Marine Resources Department. Nonetheless, as a widespread issue on an international scale, ultimate decisions regarding catch limits have frequently permitted fishing activities to surpass the levels recommended by Government scientists. The problem mentioned above has been further compounded in Namibia, where the small-pelagic and hake industries have engaged the services of consultants to conduct internal stock evaluations (Manning, 1998; Paterson and Kainge, 2014). It is not surprising that industry-funded assessments tend to be less conservative in their estimation of stock abundance when compared to Government scientists. In addition, there have been claims that capture limits were exceeded against the advice of marine scientists to safeguard employment in the country's industry. Another problem is that official stock assessments are kept confidential.³²

The under-performance of specific fisheries, namely pilchards and orange roughy, that have been inadequately managed and show no sign of recovery, is likely attributable to political pressure influencing capture limit regulations. Aside from that, MSC certification suggests that the hake fishery situation is improving.

³¹ Interview with the Chair of the Namibia Hake Association, October 2022.

³² Interview with senior official, Ministry of Marine Resources, October 2022.

The outcomes of the second-generation strategy, which involves using access to promote investment in fish processing to generate jobs, have been varied. In the 1990s, the establishment of multiple companies resulted in a surge of more than 6 000 Namibian employees in the post-harvest sector. Employment in the post-processing sector has been growing, although at a slower rate, and two primary criticisms have been expressed.

The first is the opportunity cost incurred by not maximising access revenue. Fishing companies were given investment incentives for creating jobs, such as a rebate on fishing quota fees. However, the cost of these incentives may outweigh the benefits gained from higher employment rates. An alternate official policy may have focused on maximizing access revenue and using it to invest in other income-generating industries (Armstrong *et al.*, 2004).

The second critique focuses on the inadequate salaries, unfavourable working conditions, and significant employment instability experienced by workers in the fishing industry (ILO, 2022). The recurrent strikes and demonstrations of fish workers have been common occurrences throughout Namibian fisheries' development (IUF, 2016).

3.6 Revisions to Namibia's fishing access arrangements

3.6.1 Drivers of reform

Past studies on the FAAs in Namibia have suggested that they result in a public dividend, with revenue from fisheries companies surpassing the spending of the Government on fisheries management (Arnason, 2002).³³ In contrast to other African countries with significant SSF, the resources assigned to the Ministry of Marine Resources in Namibia are primarily directed towards the supervision and advancement of commercial fisheries. In 2012, the Ministry for Marine Resources spent NAD 235 million, but official revenues from marine fisheries were just NAD 132.5 million (Ministry of Fisheries and Marine Resources, 2013). Although the country applies cost-recovery charges, they do not fully cover the Government's spending on fisheries management.

Since 2015, there has been a shift in opinions on fisheries access fees in Namibia. The Ministry of Fisheries and Marine Resources has expressed dissatisfaction with the low fees and has stressed the necessity of raising them. It is responsible for setting annual quota fees using a formula that has remained fixed for over 15 years, without taking into account any fluctuations in the actual selling prices of fish by fishing companies. In 2016, the Namibian dollar declined significantly against the Euro, changing the official discourse from focusing on fair fishing fees to prioritising higher fees to provide a public dividend (Ministry of Fisheries and Marine Resources, 2018).

The Namibian Government's heightened emphasis on access fees coincided with an economic crisis. In 2015–2016, the Government experienced significant financial deficits, resulting in protracted delays in payments to the civil service and the military (Lyneham, 2018). The Government adjusted its fish value estimates, increasing quota fees at the end of 2017. Additionally, the Ministry's budget was reduced by 42 percent from 2017 to 2018 (Ministry of Fisheries and Marine Resources, 2018). Subsequently, Government revenues

Arnason's (2002) review of individual transferable quotas undertaken found that Namibia was the only country in the world where the treasury directly collects a positive net income from the fisheries.

from the fisheries sector surpassed expenditures allocated to fisheries management, giving rise to a public dividend derived from fisheries revenues. Nevertheless, this was presumably accomplished at the expense of securing a sufficient budget for fisheries management.

Data provided by the Government to the Organisation for Economic Co-operation and Development (OECD) demonstrates the impact of the revisions on the quota fee.³⁴ Revenue from fishing quotas varied between NAD 123 million and NAD 145 million from 2012 to 2017. After the Government revised the quota fees, the income increased to NAD 267 million in 2018.

3.6.2 The auction system

During the global COVID-19 pandemic, the Namibian economy worsened, prompting the Government to initiate a trial auction for some fishing licenses. In 2018, a process was implemented to renew fishing quota allocations, which was not fully resolved by 2020. As a result, a considerable portion of the fishing quotas designated for 2020 remained unallocated. Consistent with the 2016 amendments to the Marine Resources Act, 2000, Namibia implemented a provision permitting separate allotment of a portion of fish quotas for activities with official objectives. At the same time, a portion of the quotas was granted to private corporations through a competitive auction process.

The primary rationale behind the auctioning of fishing quotas was to generate an unforeseen financial gain that could be allocated towards addressing the economic crisis caused by the pandemic. The primary management of the initial auction was entrusted to the Ministry of Finance, which had not been engaged in issuing fishing quotas before this occasion. Most probably, the ongoing Fishrot scandal at the time had impacted this decision.

The Minister of Finance utilized the auction above to unveil the "true value" of Namibian fish resources while presenting it as an extraordinary policy (Namibian Broadcasting Corporation, 2020). As a result, the auction served as an extension of the official endeavours to optimize the public dividend derived from the fishing industry, which was previously deemed to have failed to contribute to the Government's resources adequately. There was considerable uncertainty in the hake industry regarding the auction's nature; specifically, whether it represented a single event intended to generate funds in light of the COVID-19 pandemic or the inception of a significant overhaul in the fish guotas sales framework.

The Ministry of Finance has supervised several separate auctions since 2020. The initial auction was conducted towards the conclusion of 2020 (Oiere, 2021), and encompassed the sale of:

- 11 000 tonnes of hake, representing approximately seven percent of the TAC;
- 72 000 tonnes of horse mackerel, representing roughly 25 percent of the TAC; and
- 392 tonnes of monk fish, representing approximately five percent of the TAC.

Sealed bids were utilized in this auction, and interested contestants were furnished with a prospectus that explicitly authorised the trading of fish quotas, thereby permitting their

sale to third parties.³⁵ Preliminary estimates suggested that the Government achieved a profit of USD 40 million from the sale of quotas, substantially more than what would have been obtained using the prior formula. Nevertheless, it became apparent that the successful offers represented a tiny fraction, as only 1.3 percent of the total funds were remitted (Oiere, 2021). Most bids were likely submitted by speculators to resell the quotas to fishing companies. Regrettably, the speculators failed to procure the essential funds on time to enable the quota transfers.

The auction's scheduling was an additional shortcoming, as it took place late in the fishing season. As a result, the fishing industry was sceptical about the ability to catch the allocated quota within the remaining period, and many well-established fishing companies opted not to engage in this first auction.

The increased success of subsequent auctions in 2021 was partially attributable to the Government's efforts to verify the authenticity of the proposals. This was achieved by implementing a pre-bid deposit and proof of funds requirement for candidates. A greater quantity of quotas was allocated in the second round of auctions. A cumulative of 14 000 tonnes of hake were submitted for the auction, representing a 3 000-tonne increase compared to the preceding year, 2020. According to the Government, the quotas were sold for a substantial premium over the regular prices. In particular, the successful vendors acquired fresh or chilled hake for NAD 11 745 per tonne, as opposed to the traditional quota fee of NAD 6 000. In the same way, the successful proposal for frozen hake was NAD 12 508, which is an increase from the previous fee of NAD 8 000 (Oiere, 2021).

In addition, Namibia auctioned 87 500 tonnes of horse mackerel in June 2021. A total of NAD 214 million was produced from the sale of 60 200 tonnes to domestic companies and 27 300 tonnes to the Government of the Democratic Republic of the Congo. Although the Government of Namibia received a price greater than anticipated at the auction, the event's timing was criticised once more (FINSA, 2022). By the end of 2023, 51 317 tonnes had yet to be captured due to the delayed allocation of quotas. Throughout history, quota-holding Namibians have been prohibited by official regulations from carrying over unused quotas to the subsequent year. However, the Namibian Cabinet agreed to a proposition put forth by the Ministry of Fisheries and Marine Resources, granting the quota-holders the ability to do so. As a result, in comparison to 2022, the quota for 2023 was diminished by 40 000 tonnes.³⁶ The carried-over quota appears to have been factored into the 2023 TAC calculations, which may harm Government revenues.

In August 2021, the Government auctioned 392 tonnes of monkfish.³⁷ Regrettably, details on the result of this auction are unavailable.

Although exact details regarding the auction outcomes are unavailable on the Ministry of Finance's website, auctioning fish quotas has successfully achieved the Government's goal of boosting revenues. The 2021 quota auctions apparently yielded total revenues of NAD 408 million, exceeding typical quota sales and auctions (De Klerk, 2021).

Many elements of the auction-based approach are still ambiguous, such as whether there

³⁵ The prospectus for this auction has not been published. See the prospectus for the monk fish auction: https://www.imcnet.org/storage/content_gallery/Notice-Prospectus-Fish-Quota-Monk-Freezer-Fish.pdf

³⁶ It cannot be assumed this decrease is due to the carry-over of unused quotas. Stock assessments may have indicated a decrease in fish abundance.

³⁷ The prospectus for this auction has been published online.

are limitations on the amount of fish a single customer can obtain or if a portion of quotas is set aside for Namibianowned firms. It is also unclear why the Government has chosen to use a sealed bid procedure, and about how the winning bidders utilize the obtained quotas, such as whether they resell quotas or form charter agreements with fishing businesses. The information on the winning bids in the auctions is kept confidential, similar to how quotas are allocated. Information on successful bidders is only accessible to the public concerning the Government of the Democratic Republic of the Congo.

Further research is required to explore these issues and examine the social and economic impacts of quota auctions, including the potential concentration of quota ownership and the use of increased Government revenues generated from auctions.

3.6.3 The future

In 2019, a high-level panel consisting of local politicians and influential business figures was formed in Namibia to create suggestions for economic advancement. The ideas were included in the country's five-year Harambee Prosperity Plan, published in late 2021 (Republic of Namibia, 2021). The Government plans to shift towards a competitive and open-auction system for selling all the natural resource rights, including fish, as mentioned in the chapter on economic advancement. It will create a sovereign wealth fund where a percentage of the income from selling natural resource rights, such as mining and fishing, will be placed. The "Welwitschia Fund" was established in 2022 to receive allocations of ten percent of the profits from fishing quota sales and 15 percent of mining royalties. Namibia has led the way by including fisheries access revenue in the world's first sovereign wealth fund that typically manages revenues from natural resources like mining.³⁸

Independent think-tanks in the country endorse the proposal to move fishing rights allocations to an auction-based system; and to manage the resulting revenue through a sovereign fund (Brown, 2021). Supporting arguments include boosting public revenues; combating dishonest dealings in the allocation process; and removing the Government's need to set the appropriate quota fee based on the market value of fish, which is a challenging task.

The auction-based system is polarizing. In 2021, with the introduction of the Harambee Prosperity Plan, the Ministry of Fisheries and Marine Resources raised concerns about auctioning all the quotas (Africa Press, 2021). Limiting the auction to a percentage of the quota was considered preferred. Although the specific proportion and rationale for this preference were unknown, it appears to diverge from the Government's Five-Year Plan.

Many well-known fishing companies in Namibia have criticized the auction-based system due to the uncertainty of quota ownership and the rising expenses, which are perhaps forcing smaller Namibianowned companies out of the industry.³⁹ Yearly quota auctions in the global supply chain disrupt longterm supply arrangements that enterprises involved in catching and exporting hake have established based on quotas allocated for 7-15 years. Moreover, there is concern that a competitive auction system may remove special access for companies that show corporate social responsibility.

A useful debate would be on the tension and relative gains to be had between launching a sovereign wealth fund in a context of a very high debt-to-GDP ratio.

³⁹ Interview with a Senior Industry Representative by the author, October 2022.

3.7 The Namibianization of fisheries

The goals of Namibianizing the country's fisheries align with local content policy, focusing on enhancing local control and ownership, fostering the creation of jobs in the industry, and supporting downstream sectors. The discounted fishing rights incentive has an exceptional economic value. In economic terms, the value of fishing rights is equivalent to a financial award granted by the Government for using the license. This continuing operating support measure is linked to fish harvesting rather than establishing a fishing operation.

Establishing an industrial fishing operation requires capital, time, industry knowledge, and operational talent. These are significant barriers to entry, particularly in an economy where capital, industry-specific skills, and operational talent may be scarce. Even without considering the associated risk and assuming success, owning and operating a Namibian fishing company may not be an exceptionally attractive prospect. The profitability of fishing investments within the country is likely dependent on the duration of official support and the ability of the company to obtain licenses consistently. More broadly, the global industrial fishing industry is characterised by heavy support from governments to most fleets. Investors do not anticipate the sector to generate abnormal profits consistently, and in the absence of government support, many vessels would fail to break even. It is rational to hypothesise that Namibian investors possessing surplus capital and knowledge of the domestic economy would possess the ability to discern investment prospects that are more attractive and entail reduced risk than fisheries.

Given these circumstances, the economically rational strategy involves forming partnerships between an existing foreign fishing operation which can exploit the licensed opportunity, and a local agent, who will facilitate access to the license on favourable terms. This has been observed in many instances of Namibianization. This strategy has proven to be more profitable and less risky than investing fungible capital in trying to establish a large industrial company in a sector that is unfamiliar to the investor.

The Namibianization model does not clearly indicate which partner would receive the larger share of the support provided by the Government. The most straightforward economic logic would suggest that the scarcer the fishing rights concerning the competitiveness of the global sector and the number of foreign companies interested in exploiting the available licenses, the larger the share a local agent could negotiate. Conversely, if licenses are abundant and there is limited interest from international companies, national fishing companies will likely secure the majority of Government support. The distribution of earnings between international and local partners might vary significantly from one partnership to another due to limited knowledge of negotiated conditions and differing bargaining skills across parties.

The shift towards an auction-based system contradicts the longstanding policy for the Namibianization of fisheries. Instead of favouring Namibian-owned companies, quotas are distributed through auctions to the highest bidder, which frequently consists of foreign-owned companies. A response may be that the previous quota-based system at the heart of Namibianization was demonstrably vulnerable to dishonest dealings and benefited a small minority of people while undermining the potential of a publicly-owned resource to provide a public dividend. Some, therefore, see the auction system as a welcome departure from the

failed policies of Namibianization. Proponents also argue that the auction-based system could still safeguard jobs in the country if quotas were sold with conditions requiring fish to be landed locally and employing Namibian citizens on vessels.

The Government's position regarding the utilization of auctions remains ambiguous in 2023. The extent to which this method may be utilized to allocate a more significant proportion of quotas, potentially encompassing the entire allocation, remains uncertain. There is no indication that the Ministry of Fisheries and Marine Resources is actively working to amend or replace the Marine Resources Act, 2000, which may be necessary to overhaul the quota system.

These developments in Namibia will likely have broader implications, as other countries may view its experiment with auctions as an interesting model to follow. No other African government has implemented a competitive auction system for selling access to fish resources.

3.8 Ghanaian and Namibian experiences with fishing access arrangements (FAA)

There are notable similarities between the situation in Ghana and Namibia. A fundamental issue in both countries has been the policy of domestication, which aligns with third-generation FAAs. Both countries have approached FAAs with the intention for foreign fishing companies to establish and promote domestic fishing enterprises. By reducing access fees to facilitate citizen participation, both countries have, nevertheless, forfeited the public resource dividend. The vulnerability of this policy lies in the fact that domestic partners in fishing companies are predominantly individuals with political influence. In the case of Namibia, the system for allocating fishing quotas to nationals attempted to overcome this by using social and economic criteria.

On the contrary, in Ghana, there is no evidence of a strategy being considered to determine who benefits from domestication and why. Given that the trawler fishery primarily focuses on export markets and licensing costs are set at a reasonably low level, it does not generate any public resource dividend. The State supports this fishery by funding some of the associated management costs. Thus, the FAA contributes to the depletion of public resources and transfers public wealth to foreign companies and a few Ghanaian people.

The flaws in policy recommendations made by external partners to the fishing administration of Ghana are evident. The policy of abruptly reducing the number of fishing licenses issued to trawler companies poses significant challenges for the Ministry of Fisheries. No means were proposed for implementing this policy, including how the Ministry may restrict access to particular companies while allowing others to continue operations.

An alternative approach in Ghana, as advocated by civil society organizations and foreign partners, involves enhancing transparency on the beneficial ownership of fishing companies. This policy is now mainstreamed in international fisheries debates, particularly

in combatting IUU fishing. However, it is unlikely to be a simple solution. One challenge is the difficulty in disclosing information on the ultimate beneficial ownership of companies, as incumbents may innovate ways to conceal their ownership. Publicly disclosing the names of fishing vessel owners may not always result in them selling their investments. Politicians are legally allowed to hold business interests, which complicates these efforts. Namibia's approach to dealing with political issues in its FAAs could be a valuable example for Ghana to consider.

An essential element of what is occurring in Namibia has been the role of a separate ministry to manage revenue management, which in this case is the Ministry of Finance. Additionally, fishery revenues are deposited into a distinct government account, such as a sovereign resource fund. The separation of responsibilities between the fisheries management and the resource-rents management offers several advantages. It mitigates inherent conflicts of interest when a single government organization is responsible for both functions, primarily when the Ministry for Fisheries and Natural Resources relies on revenues from commercial fisheries licensing for its operating budget. Ideally, revenues from commercial fishing would be managed separately, with one charge allocated to fisheries management costs and the other designating a public dividend if this were an objective of national fisheries policy.

Furthermore, Namibia is moving away from a domestication policy by introducing an auction-based system, which may help mitigate the negative consequences of elites capturing fishing rights. In this way, the policy is replaced by one that maximises revenue to generate a public dividend, and is also a method that can be utilized to reduce fishing capacity.

One barrier for Ghana adopting this approach is the absence of fishing quotas for the trawling industry, although it could be developed. There would also be considerable resistance from within the fishing industry, as an auction-based system would increase access fees and potentially exclude several companies unable to afford them. However, unlike in Namibia, trawler companies in Ghana have no valid claims for long-term fishing rights. Fishing licenses are issued annually, with no guarantees for reissuance.

Transitioning to an auction-based system or any other effort in Ghana to reduce the number of fishing licenses requires solid political determination, emphasising the potential advantage of having separate government organizations accountable for managing fisheries and collecting income. The need to generate a public dividend acts as a counterbalance to the interests of fishing companies, making it easier to implement challenging reforms to FAAs, potentially with the support from the Ministry of Finance rather than the Ministry of Fisheries and National Resources, given its higher standing. The current context of a debt crisis in Ghana could further bolster the case for these reforms.

In contemplating these options for Ghana, it is crucial to emphasise that transparency is most urgently needed in revenue management rather than solely focusing on company ownership. The purpose of transparency for FAAs is to draw greater attention and public scrutiny to policy coherence.

4

Resource-holder III – Pacific Island Countries and Territories (PICT)

4.1 Introduction

The Western and Central Pacific Ocean (WCPO) is home to one of the world's most significant, valuable, and complex multi-species fisheries. The fisheries management of this region heavily relies on foreign FAAs. As resource-holders, the Pacific Island Countries and Territories (PICT) grant licenses to DWFs to extract resources from their EEZs. Tuna in this region accounts for over half of the landings, dock value, and end-value of all commercial tuna fisheries. Annually, approximately 1.4 million tonnes of tuna are caught in the waters of PICT, supplying more than 30 percent of the global tuna market (McKinney *et al.*, 2020). All four leading tuna stocks in the WCPO: South Pacific albacore, bigeye, skipjack, and yellowfin; are deemed "biologically healthy." This means they are not overfished, and that overfishing is not occurring, although there is a risk of overfishing for bigeye tuna. However, the biomass of most stocks is continuing to decline (FFA and SPC, 2022). When a stock is "biologically healthy", this does not mean that the associated fisheries for that stock are performing well economically, such as in the case of South Pacific albacore.

Moreover, it does not guarantee the achievement of desired management and socioeconomic outcomes by either resource-holders or resource-seekers. All four species are dispersed and migrate throughout various geographic locations in the WCPO, including the EEZs of multiple PICT and the high seas. The highly migratory status of these stocks significantly influences the dynamics of access.

This section provides a concise contextual overview of foreign FAAs in the region's waters, highlighting key characteristics of the purse-seine and longline fisheries. It then examines the relevant institutional bodies involved in access within the WCPO. Furthermore, it explores the pursuit of economic benefits through FAAs in the purse-seine and longline industries in PICT. Finally, a political-economic analysis across the three FAA sets identifies opportunities and challenges associated with PICT FFAs. This analysis considers regulatory, social, and ecological change in this diverse region.

4.2 A contextual overview

In 2021, Member Countries of the Pacific Islands Forum Fisheries Agency (FFA) generated government revenues amounting to USD 480 million from licenses and the collection of access fees. This figure represents a rate of return of 20 percent on the landed value of the catch. Analysts suggest that this rate of return is highly favourable compared to other fisheries and historical returns in the region (FFA and SPC, 2022). Table 4.1 summarises the tuna industry's importance to PICT economies, including license and access fees. These indicators provide a contextual understanding of the role of access within the broader political economy of PICT resource-holders and the global tuna industry. They also indicate the considerable diversity of the industry and its relative importance in the socio-economic development of the various countries responsible for the collaborative management of these transboundary, shared fisheries.

Table 4.1 National tuna-related socio-economic indicators (annual averages, 2019-2021)

	Value in USD million			Processed		GDP	
Country	Tuna catch in national waters	Tuna catch by the national fleet	Tuna exports	Tuna fishery access and license fees	or handled on shore (tonnes)	Employment	in USD millions (Access % of GDP)
Cook Islands	48	12	2	9	130	88	252 (3.3%)
Fiji	40	63	94	2	41 744	3 313	4 900 (<1%)
Micronesia	280	284	142	71	39 656	1 166	404 (18%)
Kiribati	701	322	81	129	1 213	961	204 (32%)
Marshall Islands	92	147	54	31	13 450	1 058	250 (12%)
Nauru	192	119	72	46	0	346	155 (30%)
Niue	1	0	0	1	0	4	29 (3.4%)
Palau	15	6	5	8	0	43	249 (3.2%)
Papua New Guinea	713	325	241	107	111 942	13 151	25 250 (<1%)
Samoa	7	12	10	1	4 381	339	752 (<1%)
Solomon Islands	193	112	80	34	28 052	3 425	1 665 (2%)
Tokelau	21	0	0	15	0	7	No data
Tonga	10	2	0	2	2 525	296	489 (<1%)
Tuvalu	153	23	12	27	0	118	63 (43%)
Vanuatu	21	114	100	2	1 603	864	944 (<1%)
Total	2 487	1 543	893	484	244 696	25 180	

Sources: FFA and SPC. 2022. Tuna Fishery Report Card 2022. Honiara; New Caledonia. Pacific Islands Forum Fisheries Agency in collaboration with the Pacific Community (SPC); UNCTAD STAT; Asian Development Bank.

Multiple fisheries are operating and managed in this region, which has experienced substantial growth since the 1970s. These fisheries are summarised below to provide a context where PICT FAAs function. The larger companies owning vessels in these fisheries tend to have a global presence. Purse-seines and longlines are the two main gear types, and vessels are granted licenses to fish in PICT EEZs through various FAAs.

4.2.1 The Western and Central Pacific Ocean (WCPO) purse-seine industry

In 2021, approximately 287 purse-seine vessels were engaged in fishing activities in the region, operating in both PICT EEZs and the high seas. These vessels collectively caught around 1.8 million tonnes of fish (WCPFC, 2022). Purse-seine vessels vary in size, ranging from smaller vessels with approximately 50 m³ of fish-hold volume to super-seiners with more than 335 m³ of fish-hold volume; and in age, from brand new to 1970s-built. The primary target species is skipjack tuna, which is destined for canning. The catch is primarily canning-grade, with a small percentage processed within the Pacific region and an even smaller percentage directed to other value chains, such as purse-seine special grade to sashimi and katsuobushi markets.

Certain PICT use FAAs to support efforts to increase the volume of tuna processed onshore as part of their economic development goals. However, most of the catch is exported from the region and processed into shelf-stable tuna for global markets (Havice, McCoy and Lewis, 2019). Skipjack market prices are dynamic and have ranged from USD 1 200 to 2 000 per tonne in recent years.

The Tables provided below offer a snapshot of fleet sizes in 2021 (WCPFC, 2022). However, they do not illustrate the recent dynamism of fleet composition in the purse-seine industry. Over the last several years, the number of PICT-flagged vessels has significantly increased as part of a broader strategy of using access to domesticate the purse-seine industry.

Table 4.2 Number of active DWF purse-seine vessels, by flag, 2010 and 2021

Country	2010	2021
China	12	0
Japan	70	58
The Republic of Korea	29	23
European Union - Spain	4	3
Taiwan Province of China	34	29
The United States of America	37	21

Source: WCPFC (2022). Tuna Fishery Yearbook. Noumea, New Caledonia: Pacific Community.

Table 4.3 Number of active PICT purse-seine vessels, by flag, 2010 and 2021

Country	2010	2021
Cook Islands	0	1
Micronesia	7	28
Kiribati	5	26
Marshall Islands	10	11
Nauru	0	15
Papua New Guinea	45	40
Solomon Islands	5	8
Tuvalu	1	6
Vanuatu	5	7

Source: WCPFC (2022). Tuna Fishery Yearbook. Noumea, New Caledonia: Pacific Community.

4.2.2 The Western and Central Pacific Ocean (WCPO) longline industry

In 2021, roughly 1 978 longline vessels were fishing throughout the region, both in PICT EEZs and the high seas, with a total catch of approximately 195 000 tonnes (WCPFC, 2022). The longline fishery in the region can be categorised into two main sectors: the tropical tuna industry and the South Pacific albacore industry. Longline vessels fishing in the area can be distinguished between large-scale ultra-low temperature (ULT) sashimi longliners (over 40 meters in length and approximately 400 GRT) and smaller-scale longliners (less than 40 meters in length and approximately 200–300 GRT), which can have either freezers at -35 °C or ULT freezers at -60 °C. The target species for these vessels are:

- High-value bigeye, which is mainly sold to Japan, the United States of America, the Republic of Korea, Taiwan Province of China, and China. Market prices range between USD 10 000 per tonne and USD 5 000 per tonne, depending on product attributes;
- Yellowfin tuna, which has higher market prices for sashimi, but the levels decline for ULT and -35 °C products, ranging from USD 6 500 per tonne to USD 3 200 per tonne; and
- Albacore tuna, which is sold at around USD 3 200 to USD 3 500 per tonne and is predominantly destined for canning in Thailand and Fiji rather than fresh, frozen, or sashimi markets (Campling, Lewis and McCoy, 2017).

Table 4.4 DWFs: Number of active longline vessels, by flag, 2010 and 2021

Country	2010	2021
China	244	335
Japan	170	71
The Republic of Korea	122	94
Taiwan Province of China	90	85

Source: WCPFC. 2022. Tuna Fishery Yearbook. Noumea, New Caledonia: Pacific Community.

Table 4.5 PICT fleets: Number of active longline vessels, by flag, 2010 and 2021

Country	2010	2021
Cook Islands	17	11
Micronesia	26	51
Fiji	92	67
French Polynesia	61	73
Kiribati	0	34
Marshall Islands	4	27
New Caledonia	18	18
Samoa	50	12
Solomon Islands	113	33
Tonga	5	4
Vanuatu	65	56

Source: WCPFC. 2022. Tuna Fishery Yearbook. Noumea, New Caledonia: Pacific Community.

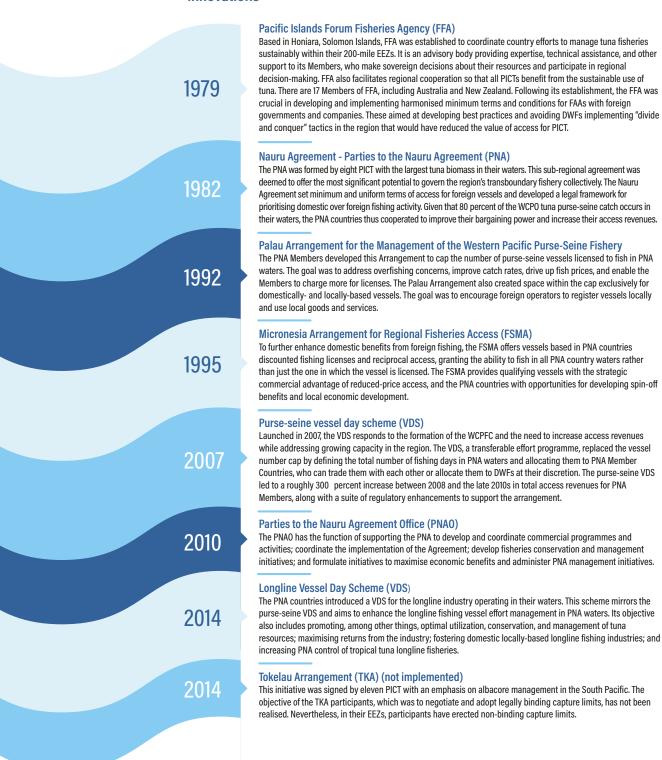
4.3 Key regulatory bodies

Industrial tuna fishing in the WCPO began in the 1960s and 1970s. During that period, Japanese and US fleets increased their fishing activities in the area. They conducted trials with different vessels and equipment to catch the untapped biomass and transfer it to processing facilities and markets. At first, ships caught a large amount of albacore, skipjack, and yellowfin tuna in an uncontrolled setting without paying any fees for entry or licensing. This practice persisted until the late 1970s when, during the UNCLOS discussions, PICT started to establish EEZs, and implement controls and taxes for foreign fishing fleets.

Initially, there was resistance from DWFs to comply with these regulations and pay licensing fees as the global tuna industry expanded (Doulman, 1987a and 1987b). Since then, the regulatory environment in the Pacific has changed dramatically, including through PICT leadership in the form of innovative south-south institutional cooperation. In addition to the conclusion of UNCLOS, PICT developed a series of agreements and institutions to regulate access to tuna in their EEZs; the coordination of transboundary fisheries management through the FFA; and efforts to increase economic returns from fish caught in their waters. The region is now home to the newest RFMO for tuna species: the Western and Central Pacific Fisheries Commission (WCPFC), which includes PICT and DWFNs.

Understanding these institutions and their relationships, including the potential tensions, is essential to analysing access dynamics, successes, and challenges in the region and distinct fisheries. Overall, since UNCLOS, PICT have innovated the creation of multiple regional institutions. These institutions have been instrumental in improving their returns from fisheries by exerting control over access. PICT have aimed to increase competition for licenses and develop regulatory tools that enable the disparate island countries of the region to move towards their distinct development goals, which may range from rent maximization to coupled benefits with onshore development and various combinations in between. Figure 4.1 provides an overview of the institutional innovations in the region that directly or indirectly shape PICT FAAs.

Figure 4.1 Timeline of Pacific Island Countries and Territories (PICT) regional institutional innovations



Source: PNA 2016, 2019a; Abolhassani 2023; PNAO 2021; Havice 2010; Havice 2013; Campling *et al.*, 2017.⁴⁰

PNA. 2016. Palau Arrangement for the Management of the Western Pacific Tuna Fishery - Management Scheme (Longline Vessel Day Scheme); PNA. 2019a. Purse seine fishing activity in PNA waters. In Western and Central Pacific Fisheries Commission - Technical and Compliance Committee Fifteenth Regular Session. Pohnpei; PNAO. 2021. PNAO Governance Framework. Majuro: Parties to the Nauru Agreement; Havice, E. 2010. The structure of tuna access agreements in the Western and Central Pacific Ocean: Lessons for vessel day scheme planning. Marine Policy 34 (5): pp. 979-87; Havice, E., 2013. Rights-based management in the Western and Central Pacific Ocean tuna fishery: Economic and environmental change under the Vessel Day Scheme. Marine Policy 42 (November): pp. 259-267; Campling, L., Lewis A., and McCoy, M., 2017. The Tuna Longline Industry in the Western and Central Pacific Ocean and its Market Dynamics. Honiara. Pacific Islands Forum Fisheries Agency.

Box 4.1 T

The Western and Central Pacific Fisheries Commission (WCPFC)

In 1997, negotiations were initiated by PICT, along with Australia and New Zealand, and the DWFNs operating in the WCPO, which included China, Japan, the Republic of Korea, Taiwan Province of China, Philippines, and the United States of America, to establish the WCPFC. The WCPFC officially became effective in 2004 to manage highly migratory fish stocks in the region, both within the designated zone and on the high seas.

The main objective of the WCPFC is to ensure the long-term conservation and sustainable use of highly migratory fish stocks in the WCPO through effective management practices. WCPFC membership involves developing and agreeing upon CMMs that apply these stocks across their entire range or specific areas within the Convention Area. Members of the WCPFC include PICT, DWFNs and cooperating non-Members. The WCPFC framework legally binds fishing entities to adhere to the provisions of the Convention, and its structure reflects the particular geopolitical and economic dynamics within the WCPO.

4.4 Rents in Pacific fisheries

Initially, DWFs hesitated to pay access fees while PICT aimed to establish and exercise their sovereign rights over tuna resources for economic growth, generating a significant impact in the context of decolonization in the 1970s. This move aimed to correct the historical trend where affluent nations profited from exploiting resources in the developing countries of the southern hemisphere.

In the first decades in which PICT had sovereign rights over their EEZs, they aimed to increase access revenues, which involved challenging negotiations with active DWFNs in the region at the time, particularly Japan and the United States of America, as well as other DWFs that were becoming active in the area by the late 1980s (Doulman, 1987a and 1987b; Havice, 2018). Throughout the 1970s and 1980s, PICT successfully secured access revenues, although these fees remained fixed at around five to six percent rate of return on the value of catch taken by DWFs. While endeavouring to increase access revenues, several PICT invested in onshore infrastructure to establish connections with an industry that had a limited presence within their territories. This strategy aimed to attract critical aspects of the industry and associated benefits, such as job opportunities in processing and other onshore activities. Several PICT invested in port infrastructure, transshipment bases, and incentives for foreign fleets and companies to establish local operations, known as second-generation arrangements, partially aimed at capturing economic activity associated with fleets, such as the purchase of goods and services; and in part, at enhancing control over foreign fishing activities.

For example, Solomon Islands and Fiji linked access to establishing processing plants in Noro and Levuka, respectively, to combined industry development and job creation (Barclay and Cartwright, 2008; Barclay, 2010). By the 1990s, some PICT invested in developing Stateowned fishing and joint venture harvesting and processing operations, aiming to capture socio-economic benefits from the ground-up of the industry. However, these efforts had limited success (Schurman, 1998; Ram-Bidesi, 2003; Ram-Bidesi-Tsamenyi, 2004).

Except for the US-PICT South Pacific Tuna Treaty, access fees remained fixed throughout the 2000s, as the DWFNs used various negotiating strategies which prevented them from maximising their collective power (FAO, 2022 Section 2.6; Aqorau, 2014). Amid this time frame, the PNA implemented a novel management approach aimed at identifying and extracting greater rent from the industry, diverting it towards PICT rather than other industry segments in tuna value chains that had been historically advantageous. In 2007, the PNA implemented the purse-seine VDS, which dramatically transformed the structure and functioning of access, and the balance of power in Pacific fisheries. In 2010, revenues from access amounted to approximately USD 150 million, which increased to USD 450 million by 2015 and have remained at those levels since then (Bell *et al.*, 2021).

4.5 Parties to the Nauru Agreement purse-seine Vessel Day Scheme (VDS)

The purse-seine VDS is a form of rights-based management. The move to rights-based management has required numerous critical phases, such as establishing EEZs; and then PICT establishing rights and duties over EEZs, including the related resources. With these rights, PICT have individually and collectively introduced management practices that DWFs must comply with to access these zones. These practices include paying access fees at set levels and terms, as well as compliance with national fishery laws. The leverage of PICT is crucial, as approximately 80 percent of the WCPO tuna purse-seine catch takes place in PNA (plus Tokelau) EEZs (PNA, 2019a). Along with the highly migratory nature of the target species (skipjack), it is economically unfeasible for the majority of purse-seiners to continue operating in the fishery without some access to PNA waters. Access to these waters allows vessels to effectively pursue the fish, maximizing fishing days while minimizing costly streaming days.

Table 4.6 PNA Member Countries

Micronesia	Palau	
Kiribati	Papua New Guinea	
Marshall Islands	Solomon Islands	
Nauru	Tuvalu	

Source: PNA. 2019b. A third agreement implementing the Nauru Agreement setting forth additional terms and conditions of access to the fisheries zones of the Parties. Majuro: Parties to the Nauru Agreement.

The VDS manages fishing effort by limiting fishing inputs; specifically, fishing effort measured in fishing days, rather than restricting outputs; setting quotas for fish caught; and implementing catch management and monitoring systems accordingly. Effort-based management systems are generally considered easier to manage and monitor but are arguably less efficient at maximizing profits than output-based systems. Effort-based systems are relatively broad management tools, focusing on time spent fishing rather than specific catch volumes. They also face problems associated with effort creep, where increased fishing capacity resulting from larger vessel sizes and gear types is not easily accommodated by the input control measured. However, effort-based systems remain common and are particularly useful for multi-species and multi-jurisdictional fisheries, such as the WCPO tuna industry, which involve political-economic and technical management considerations (Squires et al., 2017; Anderson et al., 2019). Indeed, the theory of an output-based system may not always measure up to the practice of an effort-based one.

The PNA countries have maintained the effort-based management approach due to the complexity of implementing an output-based system, such as quotas, which would present political-economic coordination challenges among Members. In cases with such a high level of complexity, output control might not serve to increase rents and could destabilise the progress made via effort-based control. Potential challenges relevant in purse-seine VDS management include significant regional political and governance diversity, lack of a "one-size-fits-all" government model, and implementation-related governance challenges (Hanich and Tsamenyi, 2009).

4.5.1 Allocation

The question of allocation is a highly debated one in PICT, as in most fisheries. More broadly, it is critically important to the institutional stability of the PNA VDS access scheme and trans-boundary fisheries management (Havice, 2021; Seto et al., 2021). In order for the VDS to operate, the PNA Members initially devised a total allowable effort (TAE) system using a formula that considers the distribution of evaluated relative biomass of skipjack and yellowfin tuna in the Parties' waters, as well as the average annual distribution of the number of fishing vessel days in those waters.

The TAE and its distribution amongst the PNA Members have remained relatively stable since its inception, considering the substantial rent increase captured through the VDS compared to 2007, which raises the stakes in any redefinition. Therefore, adjustments may have significant financial repercussions with the risk of eroding collective action (Campling and Hetherington, 2021). Despite this constraint, the PNA has made some revisions to the TAE formula, including changes to the number of years over which rolling averages are calculated; adjustments to the relative weightings of area and effort calculations; incorporations of special case FAAs and Micronesia Arrangement for Regional Fisheries Access (FSMA) vessels; and the definition of biomass or area for calculation purposes (personal communications with PICT government officials, 2021).

Once the TAE is calculated, the Parties allocate it to Member Countries wherein each receives a Party Allowable Effort (PAE). The PAE is calculated with a proxy for biomass (relative area of national waters of the Parties, excluding archipelagic waters) and a proxy for fishing

effort (rolling average percentage share of days fished by purse-seine fleets, including FSMA vessels). Parties are allowed to trade days with each other; and for some countries, especially Tokelau, this trading is the main impetus for their participation in the scheme.

More fishing days are available for purchase than are actually sold, leading to a surplus of days that vessels can buy. However, this creates economic inefficiencies in the system, resulting in unclaimed potential earnings (i.e., lucrative auctions require unsuccessful bidders). Nonetheless, it is unclear whether introducing unsuccessful bidders into the framework would be a sustainable long-term business model for the PNA and the effects that it would have on fleets. In addition, the PAE is not constant and is affected by various factors, including trading among Parties, the number of days included in pooling arrangements, the number of unused or unsold days, and the number of days that might be sold above the PAE. Overall, any changes to the TAE and the PAE are complex processes with significant economic and political implications.

It is challenging for external observers to effectively track and monitor sales of vessel days due to the lack of public reporting by the PNA regarding the PAE allocation to each Member. However, the PNA internally maintains a clear delineation of these allocations and closely monitors the breakdowns of vessel days daily. While the PNA consistently reports the aggregated total to the WCPFC and provides comprehensive information to the Pacific Community or stock assessment at disaggregated levels, the PNA group has implemented several additional regulatory measures alongside the VDS to enhance their capacity to increase access fees, monitor and ensure sustainable fisheries management (PNA, 2019b). These supplementary regulatory measures include:

- A "minimum benchmark" price for fishing days that applies to all foreign fleets (with exceptions for locally-based or locally-flagged vessels). The initial rate was set at USD 5 000 per day, which incrementally increased to USD 8 000 per day, though some vessels pay above this minimum benchmark;
- Closure of high seas areas, known as "donut holes" located between PNA countries' EEZs. This closure pushes fishing efforts into PNA EEZs where the countries can charge for fishing days and better regulate fishing;
- Closures on the deployment or servicing of fish aggregating devices between July and September of each year (with exemptions for locally-based or locally-flagged vessels); and
- Requirements for observer coverage on vessels and satellite monitoring. The PNA group invests heavily in vessel monitoring, and the FFA also monitors vessels through its Regional Fisheries Surveillance Centre.

Each of these mechanisms relies on effective collective enforcement across all PNA EEZs, serving as an essential element to enable the successful implementation of the VDS.

4.5.2 Summary outcomes

Since its inception, the purse-seine VDS has achieved a remarkable increase in access revenues for the PNA Members and a significant reorientation of power dynamics within fisheries. Between 2010 and 2015, access revenues to the PNA group escalated from around USD 150 million to USD 450 million, signifying a substantial shift in the flow of value from profits by industry players to rents acquired by PICT.

The FFA Regional Roadmap for Sustainable Pacific Fisheries aims to increase access revenues by 25 percent over five years (FFA and SPC, 2015). Despite being unchanged since 2015, access income in the fisheries sector still outperforms other fisheries, representing around 20 percent of the total value of the catch. This revenue is also considerably higher than previous bilateral arrangements employed by PICT in the past. In addition, the purse-seine VDS has demonstrated its resilience in maintaining access revenues (FFA and SPC, 2022).

The FFA Regional Roadmap also set a goal of increasing the proportion of catch value obtained by FFA Island Member fleets by 20 percent over five years. The share of the catch value acquired by FFA Member fleets, including flagged and charted vessels within their FFA Members' EEZs, has continued to increase as vessel owners re-flag to FFA registries. In 2021, FFA Members' fleets accounted for 56 percent of the catch value within national waters, a significant increase from 39 percent in 2015, representing a 44 percent growth (FFA and SPC, 2022) aligned with regional objectives and offering PICT the chance to link access advantages with onshore industrial growth. However, it results in a missed opportunity to maximise access earnings since flagged vessels or those based locally, typically qualify for lower access fees.

The VDS has been a critical instrument in limiting high seas purse-seine fishing, and restricting DWFs from operating in major portions of high sea areas if they seek to access PNA Members' EEZs. These restrictions on specific high seas areas were subsequently included in the WCPFC 2008-01 CMM for the tropical tuna fisheries. In this regard, the PNA countries have effectively advocated and implemented restrictions on high seas fisheries that complemented their sub-regional initiatives.

4.5.3 The political economy of the purse-seine VDS

Four interrelated factors explain the remarkable success of the purse-seine VDS.

The first factor is a fundamental geographic and legal fact: most purse-seine fishing activity is concentrated in PNA EEZs. Ultimately, the competition for access is driven by the demand for raw materials to feed the high-volume, low-value, shelf-stable tuna industry. Given that purse-seiners must operate across multiple EEZs to remain commercially viable in the WCPO, PNA countries possess the fundamental conditions to manage DWFs collectively.

The second involves a political and technical dynamic that has emerged over decades of institutional development. PNA countries have been collaborating and building institutional frameworks to govern the intricacies of the VDS for nearly half a century. Through this

process, they have defined and navigated their distinct national interests and mechanisms for building institutions that can accommodate their interests, albeit imperfectly.

Third, an important aspect is the economic and technical capacity. PNA countries and other PICT have simultaneously developed independent technical expertise in management and socio-economic analysis of access. This expertise has been utilized over time to identify and analyse profits within the industry and to model various rights-based management approaches that could be implemented. Additionally, these countries have enhanced their MCS capabilities to enforce regulations. Despite receiving advice, often funded by external donors aligned with the interests of foreign fishing fleets, the PNA countries have successfully sought, selected, nurtured, and financed advice that aligns with their political interests. PICT and the PNA have conducted analyses to determine the availability of economic rent in different parts of each fishery and to identify areas where it may be limited, thereby restricting the potential for access fees or incentives for onshore development and domestic registration. These analyses focus on how the availability of rent is influenced by dynamic costs in the industry, such as raw material prices, fuel costs, cold storage costs, and labour costs throughout the supply chain. Furthermore, this analytical work conducted by the PNAO has enabled PICT to explore how different vessel attributes (such as size, flag, location of fishing and market) affect levels of profitability; and as such, the differential ability of DWFs to be able to pay access fee rates (older, smaller and less-efficient vessels are lessprofitable than their modernised counterparts). PICT and PNA countries, particularly, have paid attention to these details and developed access models based on this knowledge.

Fourth, while not always seamless, the structure of the purse-seine VDS offers flexibility that enables PNA Members to meet their very heterogenous tuna-based development strategies. Countries that aim to maximise rent, meaning they possess high biomass in their EEZs, but have limited infrastructure and market linkages for onshore development, can focus on selling the fish to other PNA countries through the tradeable element of the programme, similar to Tokelau's approach. Alternatively, they can sell days to vessels operating under transshipment models, as seen in Kiribati's approach. Countries seeking to build onshore linkages can offer concessions, such as reduced access fees and exemptions to Fish Aggregating Device (FAD) bans that come with local flagging. For countries like Papua New Guinea and Solomon Islands, which possess extensive processing capacity and aspirations to build economies of scale in onshore industry elements, such incentives can also be linked to requirements for onshore investment and raw material landings. This flexibility has enabled the coalition of PNA countries to remain engaged in the programme while defining and achieving distinct goals.

One perceived achievement of the PNA VDS is that it has enabled PICT to attain the goal of increasing the size of domestic fleets in the region in absolute terms and relative to foreign vessels. Domestication, also known as second-generation access, aims to give PICT more responsibility over the management, planning, and execution of tuna fishing activities in the region. However, the extent to which this is the case, remains unclear.

Domestication unfolds through several mechanisms. There has been a growth of vessel numbers in the PICT-flagged purse-seine fleet. Domestically-flagged fleets account for 54 percent of the value of the purse-seine catch obtained in FFA Members' waters (FFA and SPC, 2022). Several vessels are also operating under charter and are considered vessels

of the host island State, even if they are not flagged to that host State. In the 2018 WCPFC summary of notified charter vessels, all 12 purse-seine vessels listed were Chinese, with 10 chartered to Kiribati and two to Marshall Islands. The Philippines owned 14 vessels, and 19 were flagged under the Philippines in the Papua New Guinea fleet. However, these vessels are operated by companies that do not own them (FAO, 2022). Furthermore, these vessels are not notified as charters, and catches are attributed to Papua New Guinea (FAO, 2022), whose fleet is shrinking due to a range of competitive pressures (Havice, Campling and McCoy, 2023). The formation of joint ventures involving a foreign investor(s) and a PICT partner is another approach that exists in various forms, primarily involving the purse-seine or processing segments of the industry. The Republic of Korea uses this model with 10 joint venture purse-seiners in Kiribati, two in Nauru, one in Tuvalu; and Japan with five in Micronesia (FAO, 2022). These joint ventures come with various requirements that may incur costs for the foreign entity, including crewing, landing, and infrastructure investment requirements. However, these requirements can sometimes be flexible, adapting to the realities of implementation on the ground.

These second-generation arrangements may provide priority access for fishing licenses, in some cases at a reduced price compared to non-domestication-engaged DWFs (FAO, 2022). Across these different options, vessels gain a series of competitive advantages over the foreign DWFs under FAAs. Vessels can also become eligible for SIDS exemptions to WCPFC CMMs, including in high seas fishing. Second-generation FAAs generally involve cost reduction, and some may even be exempted from PNA-required FAD fishing closures.

These moves have increased the proportion of catches taken by the PNA fleet. However, they create a competitive disadvantage for DWFs who pay the full price for access and comply with WCPFC CMMs. This leads to tensions in the WCPFC negotiations, often taking on geopolitical and economic dimensions. In addition, major opportunity costs are associated with selling days to domestic vessels and providing exemptions to conservation measures, especially when days are not linked to corresponding onshore or other spin-off benefits. Cheaper access to the archipelagic waters or the FSMA categories of licenses that allow access across PNA waters can be analysed as undermining the competition for vessel days because forgone access fees are not offset with indirect or direct benefits. The pricing of discounted access is not publicly available, but estimates range from USD 1 000 to 5 000 per day (personal communication, 2017). However, there is heterogeneity in pricing. For instance, in 2023, Papua New Guinea reportedly charged domestic vessel rates closer to the minimum benchmark rate, contributing to vessel tie-ups and related supply problems for domestic processing facilities (Campling, Havice and McCoy, 2023). The challenge of utilizing second-generation FAAs to promote employment in onshore fish processing has also been a longstanding concern (Havice and Reed, 2012; Barclay and Yoshikazu, 2000).

Furthermore, using the WCPFC SIDS exemption for high-seas fishing raises some concerns:

- PNA Parties may be under-valuing this part of the public asset and receiving less than market value for it;
- High seas fishing may be less efficient than in-zone fishing, resulting in a lower market value for high seas access despite similar levels of fish stocks due to in-zone fishing; and

If the allocation of these fishing opportunities is not determined through inter-party negotiation within the PNA framework, there is a possibility that certain Parties are gaining advantages from a portion of a shared resource at the expense of others. This trend would weaken collective action unless incorporated within the negotiated PNA framework (Campling and Hetherington, 2021).

In addition to the actions taken by the Parties to the PNA, there is also the ongoing challenge of restricting competition with the VDS from fishing in the waters of non-PNA participants. This challenge is also linked to the risks involved in including other countries in the VDS, particularly in terms of competition with the VDS in the high seas, the waters of PICT that are archipelagic, and in other PICT that are not Members of the PNA VDS. This question pertains to the broader politics of tuna management and tuna-based development across the region.

4.6 The Parties to the Nauru Agreement (PNA) longline VDS

Following the purse-seine VDS' success, PNA countries developed a regulatory framework to apply a similar VDS to the tropical longline industry, explicitly targeting bigeye and yellowfin. As in the purse-seine industry, the longline VDS is intended to enable PNA Members to manage the tropical longline fishery effectively by securing rights in their waters and maximising the value of fisheries access while achieving sustainability goals. The PNA longline VDS came into effect under the Palau Arrangement in November of 2014, with five signatories: Micronesia, Marshall Islands, Nauru, Solomon Islands, and Palau. The scheme was formally implemented on 1 January 2017, with seven of eight PNA countries (excluding Kiribati) and Tokelau joining the initiative.

The structure of the longline VDS largely mirrors the purse-seine VDS, although there are differences in procedures and outcomes between the two fishing industries. The longline VDS established a TAE for fishing in all Parties' waters, subsequently allocated to States as a PAE. The initial TAE, adopted in 2014, was 130 000 fishing days, which increased in subsequent years, covering all Members, Tokelau, and Kiribati. This TAE reflects the sum of PAEs of the participating countries based on their development aspirations and willingness to limit effort. While an allocation key was used to calculate PAE, some Members have negotiated aspirational limits outside of this original calculation. Although specific data on recorded longline vessel days fished is not publicly available, indications suggest that the total fishing effort is roughly half of the TAE (personal communication, 2018), implying that the TAE and subsequent allocation have not effectively restricted access to the fisheries. The under-utilization indicates potential issues, including the TAE being set too high; distantwater fishing vessel owners opting to fish primarily or exclusively in the high seas; and Kiribati not participating in the scheme until 2020. Kiribati and Solomon Islands are the two EEZs with the majority of longline fishing effort amongst the PNA (Campling, Lewis and McCoy, 2017).

Table 4.8 PNA + Tokelau Party Allowable Efforts under the longline Vessel Day Scheme (2017-2021) and average recorded longline vessel days (2017)

EEZ	PAE (fishing days)
Micronesia	30 928
Kiribati (not signed onto the longline VDS)	41 597
Marshall Islands	13 730
Nauru	5 000
Papua New Guinea	20 000
Palau	12 035
Solomon Islands	29 342
Tokelau which participates in the purse-seine and the longline VDS	5 000
Tuvalu	7 500
Total TAE (days fished)	165 132
Total (less Kiribati)	123 535

Source: Campling, L., Lewis A., and McCoy, M., 2017. The Tuna Longline Industry in the Western and Central Pacific Ocean and its Market Dynamics. Honiara: Pacific Islands Forum Fisheries Agency.

Despite this mismatch, the overall limit holds less significance in this fishery for two main reasons. First, in the tropical longline fishery, the majority of effort (around 60 to 70 percent), occurs in the high seas, not in PNA EEZs, implying that the PNA has limited leverage in the longline fishery compared to the purse-seine fishery, where the majority of effort occurs within the fished in-zone. As a result, the success of the scheme hinges to some extent on two factors: PNA countries finding an appropriate cost for vessel days that incentivizes vessels to fish in-zone rather than moving to the high seas where access fees are not required, and regulatory discussions at the WCPFC, which oversees high seas fishing and whose membership includes DWFNs which may or may not prioritise SIDS interests.

Second, the tropical longline industry is generally less profitable than tuna purse-seining, which reduces the capacity for coastal States to generate revenue through FAAs. The PNA register includes roughly 250 longline vessels, and analysis suggests that these vessels are operating at rents higher than the access fees paid. However, the ULT fleet is relatively more competitive than other vessels. Like the purse-seine industry, vessel profitability varies based on vessel type, target market, and flag State. In 2016, the longline fleet's average catches in PNA EEZs accounted for around 46 000 tonnes, with an estimated combined value of USD 260 million. Consequently, access fees are significantly lower than in the purse-

seine sector. Exact details on fees are not publicly available; however, analysis suggests that fees range between USD 100-130 per day for foreign vessels, with variation based on vessel characteristics (personal communication, 2018).

The longline VDS has encountered significant opposition from most East Asian DWFs, which had aimed to concentrate their fishing efforts in the high seas. There is also some risk that, similar to the TKA, aspirational calculations embedded in the longline VDS TAE undermine any claims to a basis in science. Given the relatively low available rent, the option for vessels to shift to high seas fishing and the price volatility for target markets, the potential revenue gains from the access system are limited. Even if longline VDS members agreed to lower the TAEs and their respective PAEs, this might not drive-up access fees due to the economic dynamics of the industry and the ability of vessels to shift to high seas fishing. Therefore, limitations to PICT reform of longline management cannot be framed as a missed opportunity. Instead, relationships and outcomes must be understood in the context of geopolitics at the WCPFC and beyond, as well as the political economy of associated business interests in fisheries. The combination of geopolitics at the WCPFC, tuna population movements outside of FFA EEZs, and the economics of the distant-water longline fisheries make these fisheries unlikely to significantly contribute to increased economic returns to PICT in the medium-term.

4.7 The Tokelau Arrangement for the Management of the South Pacific Albacore Fishery (TKA)

The southern longline fishery is responsible for more than 90 percent of the South Pacific albacore (SPA) catch. The fishery is distributed across 15 EEZs of PICT and four high seas areas throughout seasonal migrations. Catches are roughly divided between EEZs and high seas, with catches concentrated in the EEZs of Cook Islands, Fiji, French Polynesia, Solomon Islands, Vanuatu, and sub-tropical high seas areas. The most significant catch volumes are attributed to longline vessels flagged to China, Fiji, French Polynesia, Taiwan Province of China, and Vanuatu. Chinese-flagged longline vessels are a significant player, accounting for approximately 30 percent of SPA catches.

Since the 2000s, the SPA catch has increased significantly from roughly 20 000 to 40 000 tonnes in the early years to consistently exceeding 70 000 tonnes per year in the 2020s. Large-scale longliners, primarily flying Chinese and Taiwanese flags, caught roughly half of the SPA volume. In contrast, the other half was caught by small-scale longliners flagged to PICT, but primarily owned and operated by nationals of China and Taiwan Province of China under charter arrangements. This fishery holds a particular relevance to PICT development aspirations. Historically, it had an important domesticallyowned longline segment. However, in the late 2010s, most domesticallyowned longliners withdrew from the fishery due to unprofitable conditions, partly driven by competition from subsidized distant-water fleets, including from China and Taiwan Province of China. This competition has led to a decline in the catch-per-unit effort, making it economically challenging for many fleets, especially those not benefiting from government support (Abolhassani, 2023).⁴¹

For broad subsidy data, see: Skerritt, D. J., and Sumaila, R. 2021. Tracking Harmful Fisheries Subsidies. Fisheries Economics Research Unit, Oceana.

In 2014, nine PICT, along with Australia and New Zealand, agreed to the TKA to improve these conditions and follow the purse-seine VDS's cooperative success. The TKA is a voluntary inzone management arrangement for the SPA longline fishery for vessels fishing within TKA Member EEZs as a target species or by-catch to address its depletion of stocks and rebuild the economic viability of PICT domestic vessels. The mechanism for achieving these goals is interlinked with the management of access: the TKA group aimed to negotiate and adopt binding catch limits known as a Catch Management Agreement (CMA), which provides the basis for setting an overall TAC and allocating that TAC to Parties. This specific tool is an example of an output-based management scheme that, if implemented, has the potential to enhance economic efficiency and environmental monitoring. The TKA group defines non-binding catch limits for vessels targeting SPA and allocates them to the EEZs of each signatory. Signatories then apply their catch limits for vessels operating within their EEZs.

Table 4.9 Interim catch limits by zone under the TKA in 2014

TKA signatory	Total allowable catch (tonnes)
Tokelau	2 500
Vanuatu	8 376
Australia	2 526
Cook Islands	9 698
New Zealand	6 700
Niue	2 500
Samoa	4 825
Tonga	2 500
Tuvalu	2 500
Fiji	7 294
Solomon Islands	14 500
Total	63 918

Source: Campling, L., Lewis A., and McCoy, M. 2017. The Tuna Longline Industry in the Western and Central Pacific Ocean and its Market Dynamics. *Honiara: Pacific Islands Forum Fisheries Agency.*

Despite implementing non-binding catch limits within their EEZs, the efforts made by participants have proven unsuccessful. The current TKA catch limits do not sufficiently reduce harvest levels to achieve economic or ecological objectives. New Zealand and several PICT have advocated for highly aspirational catch quotas, which led to a key TKA Member withdrawing and subsequently putting the Arrangement on hold (FAO, 2022; personal communication, 2021). Given that 60–70 percent of the catch is taken in-zone in this fishery,

collective action would be beneficial to pursue if political constraints could be navigated and Parties accepted more meaningful limits on the total catch to restore some degree of rent (personal communication, 2021). The goal is, however, relatively high. Analysts recommend that total effort reductions of 25 percent would be required to ensure that catch per unit of effort levels remain by 2033. To achieve increased profitability, ensure the sustainability of domestic fleets, and enhance returns to coastal States from access rights sales, reductions in the range of 40-50 percent are required to bring catch per unit of effort levels back to a desirable level (Reid, McDonald and Rodwell, 2016).

This TKA failure has come as FFA Members have unsuccessfully worked collectively to table multiple proposals at the WCPFC to replace the existing limit on the number of vessels (rather than catch volumes) fishing for this species south of 20°S, and introduce target reference points for the species. Overall, this case reflects several of the constraints of the longline VDS: the overall catch limit is set too high to achieve the environmental or economic goals of the TKA members; and the longline vessels in this fleet appear to be less dependent on TKA access to be commercially viable and can instead operate in the high seas.

4.8 Political-economic dynamics

This section has reviewed the technical, legal, political, and ecological dynamics in WCPO purse-seine and longline fisheries. It has also analysed the role of access for PICT resource-holders' more comprehensive efforts to benefit from their tuna. Furthermore, this section has examined the advances, opportunities, and obstacles associated with achieving national and regional goals in the three fisheries. This conclusion looks across the cases for insights and highlights likely to be of growing importance to access in the WCPO. It demonstrates that Pacific Island resource-owners are at the forefront of developing new systems for managing fisheries access and related fishery management. However, it also highlights that implementing these new systems is insufficient to achieve desired outcomes. Several key factors emerged from this analysis:

PICT are united by ocean space and tuna fisheries. Hundreds of thousands of miles of sea geographically separate most Pacific nations. Unlike countries with land borders, fisheries play a prominent role in bilateral and sub-regional relationships, as these present unique challenges. The focus remains squarely on fish, without the possibility of resolving disputes by trading off concessions in unrelated policy areas. This helped maintain the integrity of bilateral relationships, particularly when the PICT need to cooperate in the face of external pressures, such as asserting their interests at the WCPFC. The economic significance of fishing access rights has become increasingly apparent in national budgets and policy discussions. Fisheries access accounts for over 80 percent of government revenue in some PICT. Even in the case of Papua New Guinea, which has the most diversified economy amongst the PNA States, access rights still hold considerable importance. While they may represent a small portion of total government income, the challenge of utilizing second-generation FAAs to promote employment in onshore fish processing has been a focus of national attention for decades, often accompanied by dissatisfaction. FAAs, therefore, have a privileged position within national decision-making processes. PICT fisheries ministers hold an unusual amount of prestige, and key fisheries decisions often occupy Cabinet discussions to an extent that would be very unusual in other regions.

- Access revenues under the purse-seine VDS rely almost entirely on collective action among Parties. A breakdown of collective action would lead to catastrophic losses, and there is a keen appreciation in the region of the dangers associated with any shift that undermines regional solidarity, being a well-understood risk. The Parties have avoided any major misstep that could seriously undermine the PNA's collective power. Nevertheless, certain decisions have modestly weakened their control over the purse-seine public asset or missed opportunities to strengthen it. In addition, emerging trends require their attention and consideration of a collective response, such as the growing significance of the SIDS high seas effort exemption.
- Political cohesion is essential for resource-holders to define and implement access regulations that are flexible enough to accommodate the diverse political and economic interests of a heterogeneous group of countries. In the Pacific, due to varying aspirations amongst PICT, maintaining solidarity necessitates a delicate balance between internal and external politics, which can fluctuate over time. For instance, at different points, individual FFA Members broke ranks with other FFA Members in access negotiations with the US fleet. Recently, the Micronesian contingent of the Pacific Islands Forum withdrew from the organization, leading to prolonged talks to address the resulting division. In addition, Australia and New Zealand, both FFA Members, have occasionally diverged from the rest of the FFA group. These examples illustrate the ongoing work associated with creating conditions of solidarity that have enabled some access successes.
- Careful analysis of available rent that is attentive to differences within and across fleets, vessel types, and market outlets has been an integral component of the Pacific's strategy. However, this has required limited technical expertise and close political alignment between analysts and resource-holders, which may be difficult to replicate in all contexts. The term "technical advice" itself is misleading, if not deceptive. While the advice encompasses technical aspects, disparities between the recommendations of different advisors exist and can largely be attributed to their political affiliations. By the nature of the experience necessary to provide technical advice in FAAs and industrial fisheries more broadly, most qualified people naturally maintain longstanding connections with industry and stepping outside from an industrycentric perspective can be challenging. PNA Members have not been lacking in advice, often funded by external donors that aligns with the interests of foreign fishing fleets. Notably, PNA Members have managed to identify, select, nurture, and finance advice that aligns with their political interests, mainly through the PNA Office.
- Creating competition for licenses by capping effort or catch is important for managing "creep" and driving up access prices, which must be balanced with the need for DWFs to remain commercially viable. Maintaining this cap remains one of the fundamental challenges of collective action.

- Geographic distribution of effort is an entangled pre-condition for improving returns to resource-owners by managing access across the various straddling stocks. Some examples of this in the purse-seine VDS are the high proportion of catch obtained within the designated zone; the ability of the PNA to impose regulations limiting fishing in some areas of the high seas; and the need for vessels to access multiple EEZs to remain commercially competitive for products destined for the shelf-stable market. These conditions played an important role in establishing a solid foundation for the success of the purse-seine VDS. However, these favourable conditions were not replicated in the longline VDS or the South Pacific Albacore fishery. In these cases, extensive opportunities on the high seas posed challenges in altering access dynamics within the fishing in-zone. In other words, the strategies that have been successful for the Pacific in the purse-seine VDS have not been sufficient to change access dynamics under these conditions.
- PICT have spent considerable effort trying to bring longline fleets under their control; however, this approach has had limited success. In addition to the political difficulty of limiting effort or catch, there is less room to improve economic returns from these longline fleets, considering their low-profit nature and the comparatively limited influence that PICT possess compared to the purse-seine VDS. Any incentives to distant-water longline fleets, such as discounted access, fiscal support or other concessions, will likely erode access revenues. Globally, there are very few examples of meaningful domestication of the East Asian longline fleets, such as Fiji, Marshall Islands, and Palau; the high seas predominance and low rents in this fishery significantly contribute to the scarcity of such examples.
- Finally, access is always geopolitical, and in the WCPO, this includes the fact that PICT create the rules of in-zone access in the context of more significant WCPFC negotiating dynamics. In short, access aspirations are entangled with WCPFC decision-making. For the purse-seine VDS, PICT have won recognition for their efforts in the regional body. However, despite PICT tabling longline management strategies as a collective of FFA countries, the WCPFC body has not yet controlled distant-water longlining in the high seas. WCPFC action, while unlikely, would be a critical step toward improving in-zone access conditions in the longline sector.

In addition to these dynamics, several cross-cutting issues are poised to critically influence the future of FAAs in the WCPO, which are explained below.

The geopolitics of the Pacific region: In recent years, there has been a notable surge in worldwide political focus on the Pacific region and the formation of connections with PICT. The increasing influence of China in the area has spurred this development, encompassing various activities such as fishing, political engagements, security agreements, foreign aid, and other investments. Simultaneously, the United States of America, along with its "Quad Partners," Australia, India, and Japan, amongst other "traditional" partners in the WCPO, have responded with significant efforts to re-engage in the region, including strengthening formal diplomatic relations and providing resources for associated projects. Fisheries access, as well as broader support for fisheries management and climate change adaptation, are some of the channels through which this re-engagement is emerging. Access has always been a geopolitical relation, and this dynamic intensifies under these conditions. For instance, in recent renegotiations of the US Treaty (the purse-seine access agreement between the United States of America and all FFA Member Countries), the US State Department proposed to enhance its annual Economic Assistance Agreement with the FFA that accompanies

access for the country's fleet, from USD 20 million per year to USD 60 million per year for ten years. This commitment has been made as the fleet has declined from roughly 40 vessels to only 12 over the recent years (Campling, Havice and McCoy, 2023). It illustrates how this specific geopolitical dynamic can increase the negotiating leverage of PICT in access disputes. However, it is critical to acknowledge that PICT confront the difficulty of reconciling the development of authentic geopolitical alliances that advance their long-term interests, with the potential relegation to mere supporting actors in a geopolitical enigma reminiscent of the Cold War.

In addition to climate change being an existential threat to some PICT, it also stands to drive shifts in tuna fishing biomass and distribution. These shifts can impact access revenues directly and, thus, PICT economies. Moreover, they can create political tension regarding sustainable management practices and essential access-related matters, such as defining the TAE and PAE as historical practices change, and new "winners" and "losers" emerge. Several studies have modelled potential outcomes under a range of greenhouse gas emission scenarios, showing potential for biomass decline, shifts in the dispersal of stocks, and implications for PICT economics (Bell *et al.*, 2021). PICT are now actively exploring policy and technical tools they can use and develop to maintain their current benefits from tuna fisheries, regardless of how climate change might shift distribution and biomass.

Calls for transparency in FAAs and their outcomes are expected to grow through initiatives such as the Fisheries Transparency Initiative (FiTI), which aims to enhance the accessibility, credibility, and usability of national fisheries management information. Given the significance of access revenues to the overall economies of many PICT, and that fisheries are a public good, ongoing attention is likely to be focused on the specific uses of access revenues within national economies.

Over the last decade, there has been increased attention to social and environmental sustainability in industrial fisheries. Resource-owners and industry have invested in policy and technical tools to improve the record in these areas. Initially, these changes were predicted to be accompanied by price premiums, providing incentives for conducting business more sustainably. The PNA took leadership in this area, investing in an ecocertification for segments of its fishery to secure some of these premiums and offset costs associated with sustainable practices. Today, environmental assurances and, more recently, assurances of fair and safe labour practices on board vessels and throughout seafood value chains, have become market imperatives rather than extra revenue sources. These aspects are also closely intertwined with access relations. Thus far, FFA Members have been at the forefront of these efforts. For example, they have included the Harmonized Minimum Terms and Conditions for Access that require vessels to set clear terms for the well-being and treatment of crew members working on board fishing vessels, as a licensing condition. Resource-holders will continue to face issues of environmental and social sustainability as a part of access relations in the future. To offer one concrete example, as is well-known, the tropical longline fishery has essential interactions with the bigeye tuna purse-seine sector. According to the PNA, there is a concern that longlining is catching larger bigeye, which could decrease their population and ability to reproduce, potentially leading to overfishing, and therefore contradicting the sustainability claims of purse-seining in the waters of PICT. It could also negatively affect the reputation and commercial aspects of fishing in these waters. Further, economic returns from tropical longlining are negligible, except for genuinely local companies (e.g., in Fiji, Samoa, and Tonga) unless there is a significant shift in relations with DWFNs.



5

Resource seeker I – Japan

5.1 The distant-water fleet (DWF)

The Japanese distant-water fleet (DWF) has a more affluent and extensive history than fleets from most other countries. The history of fishing access arrangements (FAAs) in Japan provides early examples of resource-seeking companies employing different strategies, from first-generation to second-generation access associated with varying degrees of direct and indirect involvement of the State; and driven by a range of broader social, economic, and political factors such as food security and export-led industrialisation. These factors continue to shape fisheries access policies today, both amongst resource-seekers and resource-holders (FAO, 2022). Further, Japanese commercial and political ties, including its large domestic market, trading companies, and overseas development assistance, have significantly supported the development of other major distant-water fishing nations (DWFNs) such as the Republic of Korea and Taiwan Province of China.

The development of distant-water fisheries in Japan was motivated by several factors, mainly to ensure food security as well as generate employment and revenues from export-oriented fish processing. A notable strategy employed by Japanese trading companies in the 1970s was that of financially supporting fishing companies from the Republic of Korea and Taiwan Province of China, which also received substantial support from their governments. These

newly established industrial DWFs became integrated into Japanese commercial networks through fixed-supply contracts and loans repaid in fish, ensuring a diversified source of fish for their Japanese clients (Comitini, 1987; Haward and Bergin, 2000; Chang *et al.*, 2010)⁴²; and providing the finance and marketing networks necessary to make the Republic of Korea and Taiwan Province of China amongst the leading DWFNs in the world, competing directly with Japan, especially in the Pacific Ocean (Hamilton *et al.*, 2011).

The Government of Japan maintains strict control of distant-water operations by imposing a longstanding cap on distant-water vessel numbers, although recent capacity expansions have been permitted (Havice, McCoy and Lewis, 2019). Japan also uses market power to influence capacity in foreign fishing fleets.

5.2 Key institutions

Industry associations of different gear types typically negotiate Japan's FAAs, such as those from the industrial purse-seine, freezer longline, and fresh longline sectors. These industry associations have government support, and former government officials hold many leadership posts. These negotiations often involve the presence of serving senior government officials. Associations frequently collaborate to negotiate agreements with a coastal State simultaneously, aiming to enhance their bargaining power. For example, the negotiation strategy of the Japanese tuna fleet would typically consist of three tuna industry associations reaching an agreement together, thereby maximising their influence alongside the Government and supplemented by tied ODA. When Papua New Guinea demanded a higher rate of return on the value of the catch for one gear type, the associations representing Japan's other gear types withdrew from negotiations. When the Pacific Islands switched to the purse-seine VDS, Japan's collective industry association strategy was significantly weakened as only the two relatively weaker longline associations would be involved in a bilateral negotiation. These associations tend to operate in different EEZs (Campling, Lewis and McCoy, 2017), further weakening their position.

Fisheries-related *gaikaku-dantai* (Government-affiliated organizations) largely implement administrative guidance or undertake activities which are non-traditional for an official agency. They exist as special corporations (*tokushu-hōjin*) (MIAC 2009)⁴³, public corporations (*kōeki-hōjin*) or chartered corporations (*ninka hōjin*) (MIAC, 2014).⁴⁴ These organizations provide financial, public works, or research services to fisheries-related industries under the Fisheries Agency's portfolio and sponsorship. The *gaikaku-dantai* may also constitute industry associations (*shadan-hōjin*) and foundations (*zaidan-hōjin*) managed and funded similarly by the Fisheries Agency to promote and support the fisheries industry (JUDGIT!, 2019; Barclay and Epstein, 2013; Takayose, 1991).⁴⁵

⁴² Other sources include multiple interviews with the Government of Japan and industry, 2006.

Legal entities established by a special law when the Government wishes to carry out a necessary business of which the nature is such that it fits in with private corporate management. The Government's institutional constraints hinder any administrative body from realising efficient management of such business.

Legal entities that require authorisation from the government authorities for their establishment. Unlike special corporations, these are established on the initiative of the private sector and are half-private and half-governmental.

⁴⁵ Unlike their "Western" counterparts, Japanese industry associations are mostly established by, and maintain close relations with, the Government.

Box 5.1 List of *gaikaku-dantai* under the portfolio of the Fisheries Agency (non-exhaustive)

Special corporations (tokushu-hōjin)

- -独立行政法人 農林水産消費安全技術センター Food and Agricultural Materials Inspection Center
- -独立行政法人 水産大学校 National Fisheries University
- -独立行政法人 国際農林水産業研究センターThe Japan International Research Center for Agricultural Sciences (JIRCAS)
- -独立行政法人 水産総合研究センター Fisheries Research Agency
- -独立行政法人 農林漁業信用基金 農林漁業信用基金 Agriculture, Forestry and Fisheries Credit Foundation

Chartered corporations (ninka-hōjin)

-認可法人 農水産業協同組合貯金保険機構 Agricultural and Fishery Co-operative Savings Insurance Corporation

Foundations (zaidan-hōjin)

- -一般財団法人 日本鯨類研究所 The Institute of Cetacean Research
- -公益財団法人海外漁業協力財団 Overseas Fisheries Cooperation Foundation (OFCF)

Industry associations (shadan-hōjin) such as

- -Kaimaki一般社団法人 海外まき網漁業協会 Japan Far Seas Purse Seine Association
- Zenmaki 一般社団法人 全国まき網漁業協会 All Japan Purse Seine Fisheries Association

5.3 Fishing access arrangements (FAAs)

The Ministry of Agriculture, Forestry and Fisheries of Japan provides public information on its FAAs on a country-by-country basis. However, the information provided is very basic. In 2020, Japan had 13 active FAAs in place. Japan's bilateral FAAs can be divided into two geographical groups: reciprocal FAAs with countries in the northern hemisphere and non-reciprocal FAAs in the southern hemisphere. This categorization maintains simplicity, aligning with the EU nomenclature. Additionally, it reflects the different power dynamics exerted by Japan in these two groups. The "northern" FAAs tend to be characterized by more symmetrical bargaining power, while Japanese ODA and other policy tools shape the influence of those in the southern hemisphere.

5.3.1 Japan "northern" arrangements

The Russian Federation has been a significant partner in Japan's distant-water fishing. Reciprocal access to each other's EEZ is established and regularised through bilateral management cooperation. Annual meetings are platforms for negotiating the quota volume of salmon species and EEZs, the number of vessels permitted by each side, and the monetary value of fisheries cooperation fees MAFF, 2021a). Until the war with Ukraine, the Japan-Russia FAA covered salmon fisheries.

Access fees are a key area of dispute. For example, at the 35th meeting of the Japan-Russia Joint Committee on Fisheries in Moscow in 2019, Japan pushed for a reduced access fee while the Russian Federation wanted an increase. Japan uses other forms of leverage, such as parallel commitments by Japanese private organizations to provide machinery and equipment worth between JPY 264313 million (approximately USD 1.75–2 million) as part of the cooperation for access to Russian salmon and trout. The exact amount is determined according to the actual catch.

The East China Sea is a major fishing area outside Japan's EEZ, an important fishing ground for trawlers catching croaker, hairtail, and squid (Ou and Tseng, 2010; p 279). Currently, FAAs in the East China Sea are governed by four bilateral fisheries agreements between ChinaRepublic of Korea, JapanChina, JapanRepublic of Korea, and Taiwan Province of ChinaJapan (Yeh *et al.*, 2015; p 300). Like Japan, China does not consider these areas to be distant waters.

The joint fishing zones are categorised under different names depending upon the bilateral partners involved and the specifics of the agreement, such as middle zones, transitional or provisional zones, and special zones.

- The China-Japan Fishery Agreement came into effect in 2000, and relations are governed by the China-Japan Fisheries Joint Committee, including annual deliberations on access to contested waters (MAFF, 2019).
- The Japan-Taiwan Province of China Private Fisheries Agreement was signed in 2013. The Parties of the Agreement are Japan's Interchange Association and Taiwan's Association of East Asian Relations. It aims to maintain peace and stability in the East China Sea, promote friendship and mutually beneficial cooperation; conserve and reasonably utilize marine living resources; and sustain operational order (MAFF, 2019).

Despite the different titles, the management structures of these arrangements are similar. The joint fisheries committees between the two partner Governments decide annually on the conditions for access (fish species, fish quota, and the number of fishing vessels, amongst others) and the measures for conserving and managing fishery resources in these areas (Ou and Tseng, 2010; p 286). Flag-State control systems apply for any enforcement action (Kim, 2003; Kang, 2003). It is recognised that the provisions of joint fishing zones are not applied to third parties, which adds complexity to fisheries management, especially in cases where the joint fishing zone between Japan and China overlaps with the joint fishing zone between Japan and the Republic of Korea (Kim, 2003).

Alongside these successful bilateral FAAs in the East China Sea, there are examples where Japan and other parties have failed to reach an agreement in disputed waters. The JapanRepublic of Korea Fisheries Agreement, which aimed to establish operating conditions for accessing disputed EEZs to fish pollock, snow crab, and other species, covers the northern provisional zone in the East Sea/the Sea of Japan, and the southern provisional zone (East China Sea) south of Jeju Island, Republic of Korea. Despite being signed in 1998 and ratified by the Korean National Assembly and the Japanese Diet in 1999, disagreements between the two parties regarding managing snow crab cage and bottom gillnet fisheries prevented their vessels from operating within one another's EEZ. Since July 2016, the mutual entry of fishing vessels has been suspended, and consultations have continued, but no agreement has been reached thus far (MAFF, 2019).

5.3.2 Japan's "southern" arrangements

In 2020, Japan had non-reciprocal arrangements with Morocco (since 1985) for tuna longline fishing and a combination of tuna longline, purse-seine and bonito fisheries with Micronesia (since 1979), Kiribati (since 1979), Nauru (since 1994), Marshall Islands (since 1979), Palau (since 1979), Papua New Guinea (since 1978), Solomon Islands (since 1978) and Tuvalu (since 1986). However, the PNA's purse-seine VDS (since 2007) and tropical longline VDS (since 2014) have destabilised Japan's traditional FAAs in these EEZs.⁴⁷

Historically, Japan's approach to bilateral FAAs with resource-holders in the southern hemisphere involved a percentage of the ex-vessel price, known as the rate of return method. For example, before implementing the VDS, Japanese purse-seine tuna FAAs with PICT, such as Kiribati, Solomon Islands, Nauru, Marshall Islands, Micronesia and Tuvalu, were reported to have a uniform rate of return of five percent. The uniformity of the rate of return suggests that Japan benefitted from asymmetry in negotiations as these PICT have quite different tuna populations in their EEZs, with implications for the extraction rate and, thus, vessel profitability in different zones.

Another approach to access fees is a flat license per vessel. In some cases, a baseline license fee is combined with a five percent top-up based upon the rate of return method. Under an FAA based on flat license fees, a maximum number of vessels would be permitted to fish for a period, often without a set volume.

Unlike the Indian Ocean cases, most Pacific Ocean examples took a non-discriminatory approach to the numerous East Asian alliances. The Pacific Ocean examples only include 12-month permits which allow for improved MCS and are easier to administer, especially when the license duration coincides with the financial reporting period.

MAFF, 2020 notes fisheries relations with Fiji and Peru, but no fishing is taking place. The report also does not mention other aspects of Japan's access relations, such as the historical role of Mauritius as a key port for expanding its industrial fishing presence in the Indian Ocean and around the African coast (Degnarain, 2020).

Table 5.1 Comparison of longline license fees in the late 2000s

Coastal State region and partner	Category of vessel	1 year (in USD)	6 months (in USD)
IO - China	<499 GRT	12 500	10 500
	>500 GRT	14 500	12 500
IO - Japan	N/A	22 000	14 500
IO - Taiwan Province of China	N/A	24 000	17 500
PO 1 - East Asian associations	N/A	20 000	N/A
PO 2 - East Asian associations	<200 GRT	22 000	N/A
	>200 GRT	26 000	N/A
PO 3 - East Asian associations	<200 GRT	5 000	N/A
	>200 GRT	7 000	N/A
PO 4 - East Asian associations	<100 GRT	9 000	N/A
	>100 GRT	11 000	N/A

IO = Indian Ocean State; PO = Pacific Ocean State

Sources: confidential by the authors; various years 2006 to 2009

A significant factor in Japanese FAAs is often a Goods and Services Agreement. The principal FAA sets out the terms and conditions under which Japanese vessels can operate in the coastal State's EEZ. Additionally, a supplementary agreement may exist wherein Japan provides goods and services to the coastal State, usually for development purposes. The Goods and Services Agreement is typically less detailed than the FAA and aligns with the foreign FAAs of Japan, which combines ODA with FAAs.

The transition of PNA countries to the purse-seine VDS had a significant impact, particularly on the Japanese distant-water purse-seine fleet, which is widely recognized as having a higher cost structure than competitors from China and Taiwan Province of China (Campling *et al.*, 2007; Hamilton *et al.*, 2011; Havice *et al.*, 2019; Kaimaki, 2021).

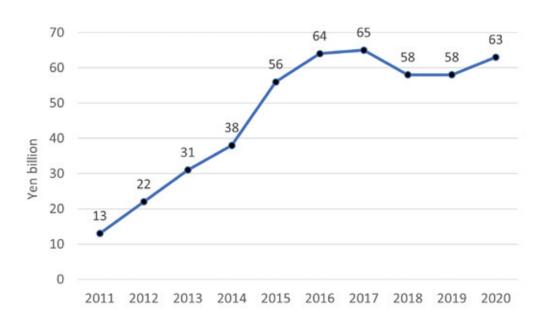


Figure 5.1 Annual aggregate access fees for Japan's distant-water purse-seine fleet in PICT (JPY billion)

Source: Kaimaki - Japan Far Seas Purse Seine Fishing Association. 2021. Overseas purse-seine fisheries regional project reform plan IV. 2021 http://www.fpo.jfnet.ne.jp/gyoumu/hojyojigyo/01kozo/nintei_file/R030603_162kaimaki_4_kyoutuu.pdf [In Japanese].

To address the difficulties presented by the VDS, the Japanese distant-water purse-seine fleet utilized a variety of tactics, including engaging in negotiations for instalment-based access fee payments to PNA Members and establishing domestic assistance measures. These measures encompassed the Access Fee Loan Scheme provided by the Overseas Fisheries Cooperation Foundation (OFCF), utilization of the Fisheries Mutual Aid Scheme, and participation in the Reserve Plus scheme. The specific terms of the loan and the monetary value associated with these support mechanisms are not reported (Kaimaki, 2016; section 6).

5.4 Official development assistance (ODA)

Japan has been increasingly facing competition with foreign fishing vessels in international fishing grounds amid soaring VDS prices, aging vessels, and the increasing number and size of foreign vessels. Fisheries cooperation has been historically instrumental in maintaining and developing Japan's overseas fishing sector. Since the early 2010s, as the geopolitical landscape has evolved, the policy discourse and rhetoric surrounding fisheries cooperation have shifted from emphasising fisheries access to becoming more aligned with Japan's overarching geopolitical strategies.

Hikes in ODA commitments for PICT correspond with triennial summit-level Pacific Islands Leaders Meetings in 2015, 2018, and 2021.

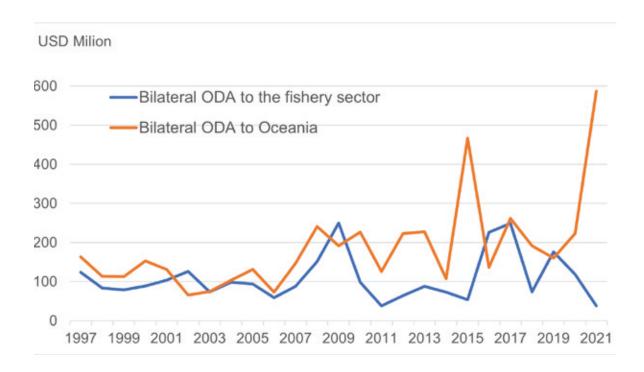


Figure 5.2 Bilateral ODA of Japan (commitment-based)

Source: Adapted from Ministry of Foreign Affairs ODA White Paper (1997-2022) and OECD Statistics (2023).

5.4.1 The main official development assistance (ODA) tools

Japan's overseas fisheries cooperation pivots around three pillars: (i) fisheries grant aid, which is provided through ODA via various channels; (ii) the Japan International Cooperation Agency offers fisheries-related technical cooperation; and (iii) the OFCF implements various cooperation projects, including technical cooperation and low-interest loans (JICA, 2014; MOFA, 2012; Sato, 2000).

The content of the fisheries grant aid overlaps considerably with the fisheries-related technical cooperation of the JICA and OFCF. The fisheries grant aid, initiated in 1973, ranges from 100 million to one billion yen (equivalent to USD 665 000 to USD 6.6 million) for each project. This aid encompasses the provision of fishing port infrastructure such as quays and docks; ice-making, refrigeration, and freezing facilities; as well as support for fishery research vessels, training vessels, fishery institutions, fishery education facilities, aquaculture facilities, fisheries product processing, and distribution facilities. Generally, this is provided to countries with fisheries-related relations with Japan, particularly FAAs; and following the fisheries development plans of the recipient governments (JICA, 2014). The fisheries grant aid comes from the ODA budget, mainly consisting of public works and infrastructure-type assistance for constructing fishing ports and other infrastructure in developing countries to secure fishing grounds for the Japanese industry.

These forms of financial support are mainly coordinated and provided through the Overseas Fisheries Cooperation Office of the International Division at the Fisheries Agency, Ministry of Agriculture, Forestry and Fisheries of Japan. These funds serve two primary purposes: securing access to fishing grounds, often used as leverage in negotiations with countries that have FAAs with Japanese fleets; and assisting the distant-water fishing industry in restructuring its activities from catching fish to joint venture fishing and eventually buying fish (Sato, 2000).

However, although there is some support for restructuring, it is not straightforward. The structure of distant-water fishing of Japan continues to exist mainly because of political factors, including the long-standing national policy of securing access to fishing grounds and the political influence of the fishing industry (Barclay and Koh, 2008).

This political landscape has given rise to a structural characteristic known as the convoy system within the Japanese fisheries administration. The convoy system generally refers to official policies that protect a particular industry, avoiding excessive competition, aligning market pressure with weaker companies, and ensuring a stable order, thereby increasing the viability and profitability of the industry. The Government occupies a central position in the convoy system that guides and supervises the sector. In the case of the fishing industry, the convoy system is supported by the Ministry of Agriculture, Forestry and Fisheries of Japan, the Fisheries Agency, various industry associations such as the Dainippon Fisheries Association, OFCF, Kaimaki, Kinkatsukyo-National Inshore Bonito and Tuna Fishery Association, and Overseas Fisheries Consulting Association, as well as the LDP Fisheries Committee. Additionally, loans and financial support offered by various public financial institutions contribute to this system (Sato, 2000). The role of the Government of Japan may seem arbitrary and difficult to understand for outsiders as the fisheries administration comprises a complex net of the industry as a whole, *gaikaku-dantai*, and related industries.

5.4.2 Geopolitics and distant-water fisheries

Japan is widely known for its complex and vertically fragmented (*tatewari*) ODA system, resulting in a lack of communication and collaboration, as well as turf disputes between ministries and agencies. Despite the system's persistence, there have been significant changes that have streamlined these fragmented processes (Cabinet Office, 2010, 2020a, 2020b).

From 2012 to 2020, there have been high-level policy changes, mainly focused on securitising ODA to counter China's growing influence. Examples of these policy changes include enacting the National Security Strategy in 2013, the Free and Open Indo-Pacific Strategy in 2016, and implementing new procedures (Kim, 2022). A 2023 Fisheries Agency document (Fisheries Agency, 2013 –2023) explicitly stated the importance of fisheries ODA to counter the influence of China and Taiwan Province of China, as well as collaboration with other ministries to promote fisheries cooperation, emphasizing:

 The rapidly growing presence of China and Taiwan Province of China in PICT due to their large-scale aid and economic expansion;

- The strengthening of the presence of Japan in terms of maritime security;
- The recognition of the relatively favourable conditions for Japanese fishing access compared to those provided by China and Taiwan Province of China, thanks to Japan's fisheries ODA and other activities; and
- The intensifying competition between China and Taiwan Province of China is driven by rising fishing fees and demands for localization (second-generation FAAs).

This approach is a significant change, as no such clear and specific reference to the DWFs of China and Taiwan Province of China had previously appeared in the same annual Fisheries Agency documents (2006–2022). The Fisheries Agency's 2023 report further specifies the need for collaboration with the Ministry of Foreign Affairs to strengthen Japan's presence in coastal States through active fisheries cooperation and to ensure the operation of the Japanese DWFs in foreign fishing areas. Again, no such clear and specific reference to other ministries, or cooperation between ministries, exists in previous Fisheries Agency reports from 2006 to 2022.

5.4.3 The Overseas Fishery Cooperation Foundation (OFCF)⁴⁸

In the late 1970s, Japanese fishing vessels faced challenges due to the establishment of 200-nautical mile EEZs and increasing access fees. To secure a more favourable position during FAA negotiations, Japan began providing economic cooperation and responding actively to requests for technical cooperation from small island countries. The Fisheries Agency initially considered implementing overseas fisheries cooperation to secure foreign fishing grounds, through a government-led "business corporation". However, due to the perception of urgency of the situation, the Fisheries Agency decided to achieve this by providing government support to a public interest corporation (foundation) established by the relevant industries; this led to the establishment of the Overseas Fisheries Cooperation Foundation (OFCF) in 1973.

The primary objectives of OFCF are:

- to promote and implement the national policy of overseas fisheries cooperation for securing foreign fishing grounds on a private-sector basis. It provides grants to "public service corporations (foundations)" established by the relevant industries;
- to provide loans for overseas fisheries cooperation projects;
- to secure, retain, and train fisheries experts; and
- to collect and provide information and support for the promotion of fisheries control.

Data and information used in this section are from Sato,2000; MOFA 1999; MOFA 2012; OFCF 2022; OFCF 2021 (n.d.a., n.d.b., n.d.c., and n.d.d.).

OFCF has worked on overseas fisheries cooperation projects in more than 140 countries, regions, and international organizations to strengthen partnerships and ensure a stable supply of fishery products to Japan.

To ensure access to overseas fishing areas and the safe operation of Japanese fishing vessels, the OFCF dispatches individual experts, accepts trainees, and provides technical cooperation through different projects. The OFCF also offers financial support to gain access to coastal State waters and promote joint venture fishing projects implemented by Japanese fishermen. This integration of technical and economic cooperation aims to achieve the following objectives:

- securing overseas fishing areas for Japanese fishing vessels and achieving a stable and sustainable food supply;
- maintaining mutually beneficial cooperation with relevant coastal States; and
- fostering international understanding that supports Japan's fisheries foreign policy.

To achieve favourable conditions and ensure stable and continuous fishing access for Japanese DWFs, the OFCF responds to requests made during fisheries negotiations with coastal countries, for technical cooperation by dispatching experts, providing necessary equipment and materials, and accepting trainees. Requests for technical cooperation are mainly from the African region, PICT, and international organizations. They involve areas of fisheries infrastructure development and guidance on processing technology for developing national fisheries industries.

Technical cooperation also includes training courses for scientific observers and supporting annual bilateral fisheries negotiations to secure access to overseas fishing areas, as well as to contribute to maintaining and strengthening long-term partnerships with PICT. OFCF staff are deployed to these fisheries negotiations to facilitate discussions on fisheries cooperation, mainly on a private-sector basis, and fishing access conditions.

The OFCF provides long-term, fixed, low-interest, or interest-free loans to Japanese corporations and other parties implementing overseas fishery joint ventures. This provision seeks to reduce the impact of risks such as fluctuations in exchange rates and commodity prices. It also aims to support resource development in the Russian Federation, Canada, the United States of America, and Australia. These countries are where Japanese vessels fish outside of developing countries that do not receive ODA.

OFCF provides two types of low-interest loans. **Type I** low-interest loans apply to projects that promote the fisheries industry or international resource management in coastal countries. These projects secure overseas fishing grounds for Japanese vessels and may be requested by partner countries' governments in exchange for entry into fisheries negotiations. They are also implemented to gain support for Japan's sustainable resource use philosophy at international fisheries resource management meetings. Profitability is not a requirement for Type I loans. The financing terms for Type I loans are: (i) interest rates of 0.5 percent

or lower per annum and (ii) a repayment period of 30 years or less, with a grace period of up to five years. **Type II** low-interest loans are relevant to Japanese corporations and entities that indirectly secure access to overseas fishing areas through joint ventures in the coastal countries concerned and provide the capital investment for those joint ventures. The financing terms for Type II loans are (i) interest rates of 0.6 percent or more per annum for yen loans or 1.0 percent or more per annum for foreign currency (USD) loans; and (ii) redemption period: up to 20 years, with a grace period of up to five years.

The OFCF plays a significant role as a public interest corporation in supporting Japan's distant-water fishing, particularly when considering its collaboration with Japan's fisheries grant scheme and the JICA's technical cooperation related to fisheries. Further research is necessary to examine the actual flows of OFCF funds, their sources, and their relationship with Japan's formal ODA programme.

5.5 Fisheries and market access

Taking a global value chain perspective can help provide a different viewpoint on access relations, institutional contexts, and the role of market dynamics. This perspective is especially notable for Japan's sashimi-grade tuna market. Japan consumes approximately 80 percent of the global catch of sashimi-grade tuna, mostly imported as frozen tuna (Campling *et al.*, 2017). Japan has a disproportionately important role in the worldwide tuna longline fishery as its market effectively drives this industry. Unlike canning-grade tuna, a significant proportion of sashimi-grade tuna is caught in the high seas, which means it is not always subject to direct access relations with coastal States. However, access relations do play a role in most longline fisheries, and important institutional and commercial factors contribute to a layering of thinking about FAAs.

For longlining companies seeking to export to Japan, registration with the Organization for the Promotion of Responsible Tuna Fisheries (OPRT) and compliance with its requirements are essential. Moreover, these companies must be duly authorised to fish by the respective RFMOs. This authorisation is crucial for the International Commission for the Conservation of Atlantic Tunas (ICCAT) due to its certification process for bigeye tuna. Therefore, aside from commercial considerations such as quality, the OPRT and ICCAT certifications are two crucial market access components. These certifications directly affect FAAs, as both have connections with Japan's market power and its efforts to regulate sashimi-grade tuna supply into the domestic market.

OPRT, established in 2000, plays a role in managing the inflow of sashimi-grade tuna into Japan. The inception of OPRT was driven by Japan's distant-water fishing industry associations, which identified the increased competition faced by its members in Japanese markets due to global overcapacity and a lack of control over flag of convenience vessels. OPRT successfully promoted the capacity reduction of Japanese vessels and contributed to efforts to enhance government control over flag of convenience vessels from Taiwan Province of China. In 2003, the number of longline vessels registered with OPRT reached 1 454, gradually decreasing to 899 in March 2017 and 915 in March 2022 (OPRT, 2023; Campling, Lewis and McCoy, 2017).

Of the 23 Members of OPRT, 16 are tuna fishing associations, which include the distant-water fishing association of Japan, representing Taiwan Province of China, the Republic of Korea and China, as well as associations from coastal States such as Cook Islands, Kiribati, Seychelles, and Vanuatu. Other Members include three Japanese trade and distributor organizations, one Japanese consumer organization, and three Japanese semi-governmental organizations, including OFCF and the Japan Fisheries Association (OPRT, 2023). The inclusion of these Japanese organizations is important due to the influence they have in terms of market access and the potential for providing aid that is not officially recognised as development aid, such as the effort to assist China in developing its domestic tuna sashimi industry through the provision of cold storage facilities as well as experts to boost consumer acceptance of sashimi (Campling, Lewis and McCoy, 2017).

Another institutional component in the relationship between fisheries access and access to the Japanese market is that the Government of Japan has been very strict regarding compliance with the ICCAT Bigeye Tuna Statistical Document Programme since its establishment in 2002. Parties to ICCAT must accompany their imports of bigeye tuna with an ICCAT Bigeye Tuna Statistical Document or an ICCAT Bigeye Tuna Re-Export Certificate.⁴⁹ This requirement applies to bigeye tuna catches from any fishing gear type, excluding purseseine or pole-and-line-caught bigeye destined for canning. The ICCAT certificate requires validation by a vessel's flag State authority or, if under charter, the chartering State authority. Re-export certificates are validated by the State which is re-exporting the tuna. While information on product type, net weight, and the exporter's certification is not required for bigeye caught in the Pacific or Indian Oceans, vessels operating outside the Atlantic Ocean generally report this information.

Japan and the Republic of Korea strictly adhere to ICCAT requirements when importing bigeye from longliners, even undertaking DNA testing to verify the species. On the other hand, the Republic of Korea, China, and Taiwan Province of China request ICCAT certificates for bigeye tuna imports destined for re-export to Japan. However, they are typically less stringent in requiring ICCAT certificates if the imported bigeye will be consumed in their relatively small domestic markets. The United States of America does not require ICCAT certificates for bigeye imports (Campling, Lewis and McCoy, 2017).

Implementing Japan's ICCAT certificate requirement for bigeye tuna imports poses a limitation for longline vessels with inadequate allocation of bigeye tuna catch quotas, particularly those from Taiwan Province of China and China in the WCPO. Once these vessels have exhausted their allocated quota, their respective flag State authorities will no longer issue ICCAT certificates. Hence, any bigeye caught outside the vessel's quota can no longer be exported to Japan. Japan also imposes strict scrutiny on the net weights recorded in the ICCAT certificates compared to the actual weights of the imported bigeye tuna. This situation has profitability implications for vessels, forcing them to sell high-quality bigeye to less-valuable markets. It may also potentially lead to misreporting of bigeye species (such as being classified as another species, typically yellowfin) or catch underreporting.

⁴⁹ ICCAT certificate data fields include vessel name, registration number and flag, ocean area of catch, gear type, product type (i.e. fresh/frozen; round, gilled and gutted etc.) and net weight, as well as an exporter certification and government validation.

To address the issue of insufficient bigeye quota allocated to DWFNs to cover an entire distant-water fishery, some coastal State governments can issue ICCAT certificates for bigeye exports to Japan from re-flagged and chartered vessels, helping alleviate the problem. Once quota levels have been met, vessels from China and Taiwan Province of China must negotiate chartering arrangements with PICT, transferring the compliance burden to the chartering State, which is expected to have complete control over its flagged and chartered vessels. This situation posed challenges for Solomon Islands and Vanuatu, which received "yellow card" warnings from the European Union under its IUU Fishing Regulation. Both countries were deemed to have inadequate controls in place over longliners operating under charters, mainly when fishing in other EEZs or the high seas (Campling, Lewis and McCoy, 2017).



6

Resource seeker II - the European Union

6.1 The distant-water fishing fleet (DWF)

The European Union DWF comprises fishing vessels predominantly over 24 metres flying the flag of one of its member States. These vessels mainly operate in non-European Union waters and the high seas. In 2022, the DWF comprised 153 fishing vessels and another four support vessels, accounting for approximately 0.25 percent of the total fishing vessels within the European Union (European Commission, 2023). This small number of vessels is responsible for 15 percent of fish landings in weight (around 600 000 tonnes) and value (over EUR 850 million) of the total EU fleet (STECF, 2022). They operate in fishing areas outside EU waters and are managed by RFMOs and other regional fisheries bodies such as the ICCAT, the Indian Ocean Tuna Commission (IOTC), and the CECAF. Access to third-country EEZs is granted through EU SFPAs or private licensing arrangements.⁵⁰

Regarding authorised fishing days, Spain and France were the leading EU Member States involved in distant-water fishing in 2022, accounting for 67 percent and 29 percent of the European Union DWF, respectively. However, in terms of tonnage, other member States such as Lithuania, the Netherlands, and Latvia had an important presence in distant-water small-pelagic fisheries in Mauritania and Morocco, accounting for six percent of the overall tonnage with only seven vessels. The EU DWF comprises mainly tuna purse-seiners, representing 69 percent of fishing days; and longline fleets with 20 percent. However, there are important discrepancies in terms of fishing capacities for the different fleets involved.

Table 6.1 Key characteristics of the EU distant-water fleet (DWF)

Vessel type	Target species	Mean length (and min-max) in metres
Pelagic trawlers and seiners	Small-pelagic	81.6 (19-126.2)
Purse-seiners	Large-pelagic	78 (52.3-116)
Bottom trawlers and dredgers	Demersal species	34.6 (25.5-55.6)
Pole-and-liners and surface longliners	Large-pelagic	28.3 (13.1-37.7)
Other vessels	Demersal species	20.9 (13-28)

6.2 EU policy on distant-water fishing operations

The conservation of marine biological resources within the waters of the European Union falls under its exclusive competence, including international obligations. The Common Fisheries Policy (CFP) governs the activities of EU fishing fleets, including their distant-water operations. The CFP is usually reviewed every ten years. However, the latest process focused on CFP enforcement rather than its reform based on an initiative report presented to the Fisheries Committee of the European Parliament; this is expected to be finalised by the end of 2023.

The last major CFP reform was concluded in mid-2013 and included, for the first time, a dedicated chapter on the external dimension, covering both SFPAs and participation in tuna RFMOs. This was a significant milestone as it prioritised the principles of sustainable and responsible fisheries in distantwater fisheries, going beyond the previous objectives of maintaining the presence of the EU DWF in external waters and contributing to European Union market supply (EU Regulation No 1380/2013; Lövin, 2012; OCEAN2012 n.d.).

The reformed CFP's external dimension and international fisheries relations have several key objectives (EU Regulation No 1380/2013). These include actively supporting and contributing to the development of scientific knowledge and advice; improving policy coherence amongst EU initiatives, particularly concerning environmental, trade, and development activities; promoting economically viable and employmentgenerating sustainable fishing activities within the European Union; ensuring that EU fishing activities outside its waters are based on the same sustainability principles and standards as those applicable for fishing operations in its waters while promoting a level playing field for its operators vis-à-vis third-country operators; and promoting and supporting all the international action necessary to combat IUU fishing.

Implementing these ambitious objectives has been challenging, as highlighted by the 2023 horizontal SFPA evaluation. While SFPAs are deemed "fit for purpose," improvements in various implementation issues, particularly in governance and transparency (the use of sectoral support, the non-discrimination clause, and the social clause), must still be addressed (Caillart *et al.*, 2023).

6.3 Fishing access arrangements (FAAs)

The European Union has two types of fishing agreements with third countries: reciprocal agreements, which are exclusively with countries in the northern hemisphere, and non-reciprocal agreements, generally with countries in the southern hemisphere.

6.3.1 Reciprocal agreements

Reciprocal agreements, also referred to as "northern" fishing agreements, are based on the principle of reciprocal resource access and do not involve any financial component. These agreements are signed with the Faroe Islands, Iceland, Norway and the United Kingdom of Great Britain and Northern Ireland. Through this network of FAAs, the European Union and these third-party States jointly manage many shared fish stocks (EU-Norway 2023).⁵¹

The European Union has three fisheries agreements with Norway, namely bilateral, trilateral, and neighbouring agreements. The bilateral arrangement covers the North Sea and the Atlantic; the trilateral agreement covers Skagerrak and Kattegat (Denmark, Sweden, and Norway); and the neighbourhood arrangement covers the Swedish fishery in Norwegian waters in the North Sea. These agreements regulate the management of shared stocks and reciprocal access to fish in each other's EEZs. Another important element is the exchange of quotas on specific stocks in the North Sea, the Barents Sea, West of the British Isles, and in Greenlandic waters. These exchanges of quotas are based on historical fishing patterns. However, they may also be affected by variations in the size and distribution of the stocks. For example, the recent expansion of the cod stock in the Barents Sea has increased the quota proposed to the European Union. In contrast, stocks offered as compensation from the European Union to Norway did not see the same increase. Consequently, the latter has retained parts of the quota offered to the European Union.

The agreement with Iceland is now regarded as dormant, which means that while the SFPA remains valid, no implementing protocol exists. Following Brexit, the United Kingdom and the European Union agreed to a Trade and Cooperation Agreement (TCA), including fisheries (TCA Heading Five). As part of this Agreement, and during a transition period until the end of June 2026, each Party has agreed to grant full access to vessels of the other Party to fish under specified TCA quotas and non-quota stocks in their respective EEZs. After that, the United Kingdom has proposed annual negotiations where access may no longer be reciprocal and instead involve charging access fees.

6.3.2 Non-reciprocal agreements: Sustainable Fisheries Partnership Agreements (SFPA)

The European Union also enters into non-reciprocal SFPAs, mostly with countries in West Africa, the Indian Ocean, the Pacific Ocean, and Greenland. These include an access component and financial payments by the European Union and boat owners. As of July 2023, the European Union has 21 SFPAs, of which 14 have a protocol in force (DG MARE, 2023).

⁵¹ EU-Norway 2023 provides some indication of the workings of 'cod equivalence'.

There are two main types of SFPAs based on the type of access they provide:

- The "tuna agreements" allow EU vessels to pursue highly migratory species such as tunas and tuna-like species (sharks and swordfish). Currently, there are ten protocols with Cabo Verde, Côte d'Ivoire, Sao Tomé e Principe, Cook Islands, Seychelles, Madagascar, Mauritius, Senegal, and the Gambia (with a hake component for the last two); and
- The "mixed agreements" provide access to a wide range of fish stocks in the partner country's EEZ. Four protocols are in force with Greenland, Morocco, Mauritania, and Guinea-Bissau. Greenland is the only mixed SFPA in the North Atlantic and the third most important agreement for the European Union in financial terms.

Additionally, the European Union has six dormant agreements with Equatorial Guinea, Kiribati, Liberia, Micronesia, Mozambique, and Solomon Islands. Every SFPA contains an exclusivity clause, meaning that EU fishing vessels can only operate within the fishing agreement protocol conditions. EU vessels are, therefore, not allowed to fish in waters under the regime of the dormant agreements.

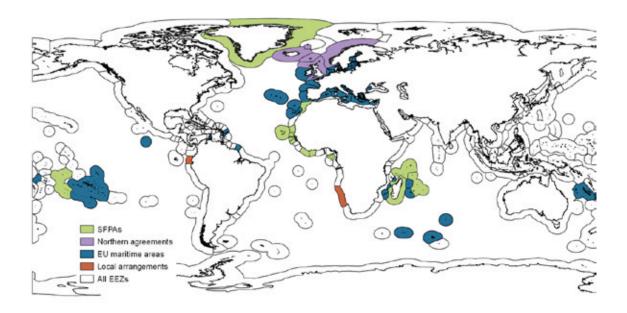


Figure 6.1 Network of European Union marine territories and SFPAs in 2020

Sources: Flanders Marine Institute. 2019. Maritime Boundaries Geodatabase, version 11 and European Commission. 2020. EU Sustainable Fisheries Partnership Agreements. Publications Office of the European Union. Redrawn by Dan Hetherington.

In exchange for providing access to resources consistent with the interests of the fleet, the European Union budget provides financial compensation (Article 32.1 of the CFP 2013 Regulation). This compensation has two components: payment for access to fisheries resources and a financial contribution called "sectoral support" to help the partner country implement its national fisheries and maritime policies, as well as aid in the development of the sector.

The budget allocated to SFPAs increased from EUR 5 million in 1981 to EUR 142.6 million in 2020, representing 12 percent of the CFP budget. The most important agreement in financial terms is the one with Mauritania. On top of European Union financial compensation, vessel owners pay license fees, other taxes, and contributions to the partner country.

Between 2015 and 2020, SFPAs represented an annual average contribution of EUR 159 million in total, including EUR 126 million paid from the European Union public budget, distributed across three pillars (Caillart et al, 2023):

- A minimum EU financial compensation for fishing possibilities, which is deposited into the general treasury as payment for access (amounting to EU 98 million, about 68 percent of the contribution);
- The European Union sectoral support of EUR 28 million to improve governance and development (towards fisheries research; MCS; and infrastructure development projects);
- A minimum private industry financial contribution (EUR 33 million; about 25 percent of the contribution), as well as for tuna agreements and additional fees per tonne caught over a predefined level of reference tonnage.

About 90 percent of the European Union contribution is related to the multi-species SFPAs concluded with Guinea-Bissau, Greenland, Mauritania, and Morocco.

The European Union part of the payment provides financial support access costs for its DWF in thirdcountry waters, as shown by the recent Seychelles report to the Fisheries Transparency Initiative (FiTI), which shows that EU vessels fishing under the SFPA pay significantly less fees compared to other foreign-flagged vessels and local-flagged vessels. For example, a non-European Union foreignflagged purseseine fishing license costs between USD 110 000 and USD 120 000 per year, while a European Union purse-seine fishing license under the SFPA costs USD 63 000 (FiTI, 2021; Gorez, 2021a).

In the case of vessels fishing under SFPAs, the fees to be paid by ship owners are complemented by an additional overall financial contribution from the European Union. In 2019, the European Union paid an annual amount of EUR 2 500 000 for access to Seychelles' EEZ and an additional EUR 2 800 000 for supporting and implementing Seychelles' sectoral fisheries and maritime policy EU, 2020).

Most of the EU's SFPA budget is spent on the mixed agreements, which give access to a surplus (as identified by the resource-holding countries) in a variety of local fisheries (demersal species, crustaceans, cephalopods) or for stocks shared with neighbouring countries (small-pelagic species). Indeed, the EU's CFP regulation insists that all SFPAs allow EU vessels to fish for surplus stocks in the EEZs of third countries. The European Union pays for its vessels to catch a portion of the third countryowned fisheries resources. However, the practical implementation of this policy often differs from the theoretical framework. For example, establishing a surplus of demersal and smallpelagic species in West African waters may be difficult as those stocks are often overfished.

EU tuna fishing access agreements require coastal State permission to access a surplus and an RFMO quota. Tuna SFPAs use a reference tonnage representing the anticipated annual catch by EU fleets in the SFPA partner country's EEZ, a share of the access allocated to them by the RFMO. The reference tonnage is used to calculate the annual advance payment made by the European Union to the coastal State. It does not represent a quota or a limit on catches and is not linked to resource sustainability.

The financial aspects of SFPAs have been the subject of significant public interest in the European Union, with debates ranging from the need to continue reducing public financing of the access possibilities allocated to EU fleets through SFPAs, to the need to continue reducing the public funding for the access. Since the 2013 CFP reform, boat-owners are paying an increasing share of the financial contribution linked to SFPAs.

Another aspect of the 2023 SFPA evaluation is the need to ensure complementarity between expenditures under SFPAs and EU development projects in order to combine budgetary rigour, transparency of the funds' management systems, and capacity-building.

The SFPAs contribute to direct and indirect employment in fishery-dependent regions of the European Union and some partner countries. They are estimated to directly support an annual average of 3 650 jobs for EU nationals and 2 650 jobs for nationals of third countries, with an additional yearly average of 15 000 jobs indirectly supported in the fish processing sectors of the third countries, of which women hold 9 000 (Caillart *et al.*, 2023). However, it needs to be considered that in the absence of an SFPA, some countries, like Senegal, Seychelles and Côte d'Ivoire, where well-equipped ports attract tuna fleets and their landings, would still benefit from job creation generated by the presence of other tuna fleets, including in the processing sector. In contrast, in a country like Mauritania, where the SFPA sectoral support has been used for modernising landing infrastructure for artisanal and industrial fleets, it can be argued that without the SFPA, fewer jobs would have been created for the local population. Additional research areas are needed to understand better the distributional effects of SFPAs, including the profits accruing to vessel owners, differential wages, and the value-added and net benefits retained in partner countries through supply chains.

The 2020 strategic plan of the Directorate-General for Maritime Affairs and Fisheries (DG MARE) is to increase the number of SFPAs in force from 13 to 16 by 2024. Some EU civil society organizations are in favour of expanding the network of SFPAs based on the 2013 CFP objectives; and, at least for the NGO community, provided that boat owners pay 100 percent of access costs (BirdLife Europe, CFFA and WWF, 2020).

The implementation of the SFPAs is linked to the implementation of the European Union IUU regulation. Activities implemented under SFPA sectoral support are believed to contribute, in most SFPA partner countries, to strengthening their MCS capacities. Moreover, the stated EU policy refrains it from negotiating SFPAs with third countries that have been pre-notified (yellow-carded) for not taking sufficient action against IUU fishing.

This represents a decline of around 3 000 jobs compared to a European Parliament (2016) report on the impact of SFPAs on employment which estimated that, overall, European Union SFPAs sustain about 23 320 direct and indirect jobs in the bloc and third countries, mainly in the tuna value chains. Broken down, this constituted an estimated 15 000 jobs created and maintained in the European Union (6 000 directly; 9 000 indirectly) and around 8 000 jobs (3 000 direct jobs) in third countries.

6.4 Sustainable Fisheries Partnership Agreements (SFPAs)

European Union member States transfer sovereignty for their fisheries policy, including its external dimension and the signing of access agreements, to the European Union. DG MARE conducts fishing agreement negotiations based on specific mandates from the Council of Ministers responsible for fisheries. Once negotiations between the partner country and the European Commission are successfully concluded, the resulting agreement (or protocol in the case of a renewal) must be ratified by the Council after obtaining the consent of the European Parliament (Article 218(6) TFEU). In SFPA partner countries, the agreement's text, once concluded, also undergoes minimal scrutiny by the national Parliament. SFPAs consist of a fisheries agreement, which establishes the legal framework, and a protocol that defines the conditions of the agreement. The main features of SFPAs include:

- The duration of the protocol: before the last CFP reform, the duration was typically three years, but it has now reached five or six years on a renewable basis. That extended period provides a degree of certainty to the EU fleets regarding their access, and to third countries regarding the EU financial contribution. However, during annual SFPA joint committees examining the state of SFPA implementation, the terms of the protocol may be altered by the Parties, introducing flexibility if needed.
- Fishing possibilities are specified by the category of vessels, according to the species they target and the gear they use. Percentages of by-catch are also stipulated. Limits to access possibilities are usually given in tonnes of fish that can be caught; in the maximum number of vessels that may be active simultaneously; or, in Cook Islands' case, in the number of fishing days. For tuna vessels, a reference tonnage is provided, representing the expected catch by the European Union DWF in the partner country's waters. It serves as a basis for calculating advance payments by vessel owners, not a limit on catches. In the case of the fishing agreement with Mauritania, an exclusivity clause exists which, in effect, stops all EU vessels from targeting cephalopods, which Mauritania wanted to reserve for its national fleet.
- The financial contribution is composed of compensation for access and an amount for sectoral support. Fees for the ship-owners are also specified, envisaging the case when 100 percent of fishing possibilities are used. The share of the ship-owners' financial contribution has increased over time, but it remains marginal compared to their income. For example, access fees represent five percent of the EU fleet's cost structure in the SFPA with Seychelles SFPA (Goulding et al, 2019).

In the last decade, several new elements related to fisheries governance, a level playing field, human rights, and environmental protection have been included in SFPAs:

Non-discrimination clause: every SFPA contains a clause whereby the partner country commits not to give more favourable conditions to foreign vessels operating in their waters, other than those in the SFPA. This provision was added to SFPAs following the most recent CFP reform to address the demands of EU fishing fleets seeking to maintain their competitiveness. The aim was to establish fair competition by ensuring that non-EU fishing fleets operating in third country waters adhere to the exact technical and financial requirements as EU fleets operating under SFPAs. This clause has proven challenging to implement without transparency regarding access conditions provided to other DWFs.

- Confidentiality: SFPAs include a clause on confidentiality, whereby the Parties undertake to ensure that only aggregated data relating to fishing activities in the fishing zone are made public. However, the SFPA with Mauritania also includes an article on transparency requiring the country to publish information such as the texts of other fishing agreements and the number of authorised vessels. Mauritania championed the FiTI, which reports on transparency in 12 fisheries-related areas. FiTI reports on Mauritania include a more significant number of elements than what is required by the SFPA under its transparency article.
- Promoting joint ventures: broadly, SFPAs can be described as first-generation access agreements. However, all SFPAs do contain a provision for promoting joint venture enterprises, with anticipated impacts on job creation, boost to exports, and technology transfer. Although some joint ventures have been constituted between the European Union and local operators in countries that have an SFPA, it is unclear how the SFPA has facilitated that, other than by supporting the creation of an enabling environment for fishing operations, such as supporting research and port infrastructure through the SFPA sectoral support. In many SFPA partnercountries, the joint venture constitution is a key issue of concern for SSF. In many cases, it has not lived up to host-country expectations regarding long-term investments. At the same time, the activities of the vessels re-flagged locally have added pressure on fishing resources, sometimes in competition with artisanal fishers. European Union stakeholders such as the Long Distance Advisory Council (LDAC) and African stakeholders have been advocating for a regulatory framework for joint ventures which is applicable to all vessels of foreign origin and to all steps of the value chain (catching, processing, and marketing); and which guarantees that joint ventures operate transparently, do not compete with SSF, and contribute to the development objectives of the host country (LDAC, 2016; CFFA, 2020).
- The social clause: in 2015, European social partners agreed on a text to include a social clause in all SFPAs. This clause aims to ensure decent working conditions for non-European Union crew working on board European Union vessels operating within the framework of SFPAs. The clause foresees that the 1998 International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work and eight ILO Fundamental Conventions fully apply to the crew on board European Union vessels, regardless of nationality. The content of this social clause is, to some extent, reflected in some of the current SFPAs. In the context of the current CFP reform, efforts are ongoing to improve the implementation of the social clause, with European stakeholders having already highlighted a possible way forward (LDAC, 2022).

Substantial evidence indicates significant gaps between the policies implemented by the European Union and their actual practice. For example, in 2023, approximately 2 000 crew from Senegal and Côte d'Ivoire working on 64 EU purse-seiners went on strike. The crew were contesting poor working conditions and inadequate remuneration, including allegations of salaries being below ILO basic salary for seafarers, contravening longstanding agreements by the European Union and the European vessel owners. Furthermore, a research study conducted in 2014 revealed that crew members from Madagascar and Seychelles working on EU purse-seiners were also paid below the ILO minimum level. In addition, the crew members claimed that the EU fleet had failed to adhere to stated practices associated with biodiversity conservation commitments (McVeigh, 2023; ITF/IUF, 2014).

6.5 Profitability of the distant-water fleet

Historically, the financial returns to coastal States are significantly lower in FAAs with DWFs other than the European Union, except for the US Multilateral Tuna Treaty with PICT. FAAs between SIDS and East Asian DWFs in the 2000s were typically based on a small flat fee plus a 5–6 percent additional payment based on the ex-vessel value of the catch. In comparison, SFPAs were generally valued at 13 percent of the value of the catch (Campling *et al.*, 2009; WWF, 2012); this changed with the PNA VDS, which provides a rate of return of 20 percent of the landed value of the catch.

Apart from the payments made directly by the European Union to coastal States, the level of EU DWF activities depends on the profitability of their operations. These DWF activities have socioeconomic consequences for the economies and livelihoods of some coastal States where the companies involved have investments and work within global supply chains. The effects for coastal States of changes in EU DWF profitability might include the access fees they are likely to pay, the availability of raw material at canning factories, and the levels of purchase of local goods and services in coastal countries where the fleets are based.

The number of EU DWF vessels has decreased from 385 in 2008 to 249 in 2020. However, this reduction has not affected the overall level of catches and landings, which have remained relatively stable. In 2020, DWF companies' net profits were estimated at EUR 31 million, an increase of almost 20 percent compared with 2019. Nevertheless, the combination of the COVID-19 pandemic and the rise in the price of fuel saw some EU DWFs encounter difficulties, notably in terms of rising operational costs and crew rotations, which reduce fishing days. For 2022, the EU DWF was expected to decline significantly, primarily due to high-intensity fuel consumption, where fuel costs were estimated to have risen by 175 percent in the first half of 2022 (STECF, 2022). Global competition is another crucial factor influencing the profitability of EU fleets. For example, EU purse-seiners experienced a decline in tuna prices in the EU markets due to a rise in the volume of frozen tuna and tuna loins purchased from China, which makes considerable use of a duty-free autonomous tariff quota for 30 000 tonnes of loins. Indeed, the most important supply shift in the European Union loin market in the last five years has been the rapid rise of China to become the joint leading supplier with Ecuador – an 82 percent growth from 2016 to 2020 (Havice *et al.*, 2021).

Certain European Union operators possess vessels flagged and registered in third countries, such as Spanish-owned purse seiners in Seychelles and French-owned purse seiners in Mauritius. This arrangement can potentially impact the calculation of economic returns for these EU companies. Investing in third countries likely results in financial transfers to the parent company.

6.6 Distant-water fleet fishing outside of Sustainable Fisheries Partnership Agreements (SFPA)

6.6.1 The Sustainable Management of External Fishing Fleets Regulation (SMEFF)

With the introduction of increasingly tight technical conditions in SFPAs and the need for EU fleets to secure new fishing grounds (including for some fleets that were excluded from SFPAs, such as the cephalopod trawler fleet fishing in Mauritania until 2012), public attention has turned to EU operators who use company-to-government arrangements. In order to try and ensure that EU vessels using these company-to-government arrangements meet sustainability criteria comparable to the vessels fishing under SFPAs, a regulation on the SMEFF was introduced in 2017 to monitor the distantwater operations of all EU-flagged vessels, regardless of the framework under which they operate, whether SFPAs or company-to-government arrangements.

The SMEFF regulation establishes standard eligibility requirements for all EU-flagged vessels, under which a member State may only issue fishing authorisation to its vessel to fish outside European Union waters if it has received complete and accurate information about the vessel's planned operation that shows they are in line with sustainable and legal fishing. The SMEFF allows the European Commission to maintain an electronic database containing all fishing authorisations granted. Part of this database is publicly accessible (DG MARE n.d.), although information on the beneficial owners is kept confidential. ⁵³ European Union stakeholders have recently called for such information to be made public when there is an overriding public interest in disclosing information, such as documented involvement in IUU fishing operations, dishonest dealings, or money laundering (LDAC, 2021a; p 14).

6.6.2 Re-flagging of EU vessels

Neither the SFPAs nor the SMEFF regulation covers EU companies' vessels using third country flags. Re-flagging has been a longstanding practice, as evidenced by Spanish investments in Namibia and Latin America (FAO, 2022). For example, in the 2000s, the Spanish-owned tuna purse-seine fleet included eight vessels flagged by Seychelles, at least five by Ecuador, four by El Salvador, and two by Guatemala, amongst others (Campling, 2012). In each case, a domestic tuna processing industry provides a ready local market for this catch because of preferential access to European Union markets under free trade agreements and European Union rules of origin that allow for a combination of local flag and registration, and European Union ownership, to comply (Campling, 2016).

Data on these re-flagged vessels of European Union origin are scarce. A 2015 European Parliament report provided information about fishing joint ventures that showed a high degree of European Union ownership (European Parliament, 2015). It found that almost 400 vessels of European Union origin had formed joint ventures and re-flagged, mainly to African countries like Morocco, Senegal, Namibia, Mozambique, and Angola, and to South American countries and territories like Argentina, Chile, and the Falkland Islands (Malvinas).

Weekly updated lists of fishing authorisations can be downloaded.

In some cases, a host country has in its waters, in the same fishery, both European Union vessels fishing under an SFPA and vessels of European Union-origin, but flagged to a non-European Union country fishing under a joint venture, like in Mauritania's small-pelagic fishery, and Mauritius and Seychelles' tuna fishery.

6.6.3 Malpractice by vessels of European Origin using third-country flags

In recent years, several cases have been documented of vessels owned or managed by EU companies involved in allegedly illegal operations, including ex-Soviet Union trawlers fishing for small-pelagic fish along the Atlantic coast of Africa (Gorez, 2021b). More generally, the unchecked activities of many of these vessels add to the excessive pressure on host countries' fisheries resources. The European Union has taken little action against those member States where beneficial owners of such unsustainable or illegal operations reside.

The EU IUU regulation provides for sanctions against nationals engaged in activities outside EU waters, including onboard fishing vessels registered in third countries. To date, neither the European Union nor its member States have taken meaningful systematic action against their nationals benefitting from IUU and unsustainable operations, something identified by an EU Court of Auditors report in 2022 (European Court of Auditors, 2022).

A vital issue is the lack of information on beneficial ownership. A study for DG MARE examining the capacity of EU member States to sanction their nationals involved in illegal fishing operations effectively made recommendations that, if implemented, might shed some light on this. These include creating a standard registration instrument for European Union citizens engaged in fishing activities, with binding obligations for member States under EU regulations, and monitored by a European Union agency (DG MARE *et al.*, 2022). This call for more transparency was matched in 2022 by the Organisation of African, Caribbean, and Pacific States who committed, at their 7th Meeting of its Ministers in charge of fisheries and aquaculture, to take measures either as flag States or coastal States:

- to update and implement national legislation requiring reporting of ultimate beneficial ownership of fishing vessels and companies whenever flagging or granting authorisation to fish; and
- to maintain a register of beneficial owners of fishing vessels at the national level and to reinforce the pursuit and sanctioning of non-disclosure of beneficial owners.

These initiatives indicate a growing interest in creating more transparency about resourceseeking countries' nationals that operate in developing country fisheries under local flags, often under the guise of joint ventures, with the possibility of effectively sanctioning them whenever they act against the law.

6.7 Stakeholder participation

The complex process of DG MARE-led SFPA negotiations on the European Union side does not make it easy for stakeholders, including civil society and the fishing sector, to intervene and make their voices heard. However, through the 2010s, the informed intervention of civil society has increased thanks to improved transparency of the process, mainly through the publication of texts related to SFPA negotiations. *Ex-ante* and *ex-post* evaluations of SFPAs are now publicly available, as well as all the texts of the agreements. Over the years, civil society has contributed to changes in the negotiation of FAAs both in the European Union and partner countries such as Madagascar.⁵⁴ Before 2013 and the last CFP reform, the main aims of these agreements were to fulfil the needs of the European Union fleets for long-term access to a third country's waters and to contribute to the supply of fish on the EU market. The 2013 reform introduced more requirements in terms of sustainability, responding to civil society concerns.

Based on this increased attention to sustainability, including the prospects for coastal artisanal fisheries development in partner countries, the European Union stopped its fleet from accessing the octopus fishery in Mauritania, as local fishers had fully utilized these overfished stocks. Because of sustainability concerns, it was the first time an EU fishing agreement had barred its fleet from accessing third country resources.

An important change in the participation of European Union stakeholders has been the creation of the LDAC, a body co-funded by the European Commission and recognised by the CFP Regulation. Officially established in 2004, it aims to provide advice to European institutions (Commission, Council, and Parliament) and the European Union member States on matters related to fisheries agreements with third countries; relations with RFMOs in which the European Union is a contracting party; with international organizations in whose waters the European Union fleet operates; as well as trade policy and international markets for fish products. Sixty percent of LDAC members are representatives from across EU fisheries value chains (catching sector, trade unions, processors, importers), and 40 percent are from civil society organizations (environment and development NGOs, as well as consumer organizations). LDAC has 54 member organizations from 12 European Union member States. The level of consensus required to reach the status of advice from the LDAC is important as it helps EU institutions to gauge public support for proposed policies and measures, including access agreements.

For example, civil society in Madagascar has been present at all rounds of the SFPA negotiation, and local civil society groups are paying close attention.

⁵⁵ See: https://ldac.eu/en/

7

Resource seeker III - China

7.1 Introduction

The promotion of distant-water fishing by the Government of China began in 1985 as one component of a broader set of fisheries policy reforms associated with the Open-Door era (Cao et al., 2017). That year, the China National Fisheries (Group) Corporation sent its first fleet of 13 vessels to West Africa, targeting Gabon, Gambia, Guinea, Guinea-Bissau, Mauritania, Morocco, Senegal, and Sierra Leone. China also rapidly established a presence in Las Palmas and then in Nigeria, not least given that country's status as the largest market for fish products in Africa. Around the same time, China expanded its operations to the waters of Argentina, while the western Indian Ocean emerged as an area of interest for China in the late 1980s (Mallory, 2013; Mallory, 2017; Zhang et al., 2008; Zhao, 2005; Shi and Gao, 2009; Yang, 2008). Thus, China rapidly moved from its first foray in 1985 to become a world fishing power across the global seafood economy's harvesting, processing, and trading segments. Indeed, China has been the world's largest fishing nation in terms of the volume of marine fish caught since the 1990s (Pauly et al., 2014).

These developments were initially driven by the crisis in China's near-shore and immediate off-shore fisheries. In response to this issue, the Government implemented a strategic approach by boosting fish production through aquaculture and relocating its fishing fleets to foreign waters as part of an extensive distant-water fishing growth strategy (Cao et al., 2017). Like Japan, China also sees the development of its distant-water fishing as a source of raw materials to supply the export-oriented fish processing industry in China, its associated employment creation, and as a means of earning convertible currency (Wei and Shuo-lin, 2005; Yang Zi-jiang, 2009).⁵⁶ However, unlike Japan and other DWFNs, China is developing in an era of the institutionalization of EEZs and possesses a relatively small EEZ, which is a direct consequence of its limited maritime empire compared to western Europe and the United States of America (Nolan, 2013). To bridge this gap in the twenty-first century, Beijing actively pursued the transformation of China into a powerful DWFN (Ministry of Agriculture, 2012). This objective has been further reinforced by a series of policies implemented in 2017 and the early 2020s, aiming not only to enhance the competitiveness of China's distant-water fishing but also to strengthen Government oversight and improve fisheries management and conservation within its distant-water fishing operations.

China defines distant-water fishing as "the activities of citizens, legal persons, and other organizations of China who go to the high seas and seas under the jurisdiction of other countries", including ocean fishing and related fisheries activities such as processing, restocking, and product transportation, but excluding fisheries activities in the Yellow Sea, East China Sea, and South China Sea (MARA, 2020a). Unfortunately, an up-to-date public list of China's distant-water fishing vessels is unavailable. The Ministry of Agriculture and Rural Affairs of China (MARA) does officially hold a list of qualified distant-water fishing enterprises and their vessels. However, this database is not publicly available in Chinese or English. Further, the MARA releases an annual notice on its website mentioning the batches of enterprises that successfully qualify to operate, but it does not provide a consolidated list of these enterprises. Meanwhile, the MARA conducts an annual evaluation programme to assess the performance of most distant-water fishing enterprises nationwide. The 2022 evaluation lists 173 distantwater fishing enterprises in total (Fishery Administration Bureau, 2023).

7.2 Drivers and institutions

7.2.1 Drivers

Article 1 of the 2020 Regulations on the Administration of Distant-Water Fisheries sets the tone for China's position. The State asserts its role as safeguarding "the legitimate rights and interests of the State and distant-water fishing enterprises and practitioners, and to conserve and sustain fisheries" (MARA, 2020a).⁵⁷ This emphasis on legitimate rights and interests clarifies that China, like all other major DWFNs, sees an unmistakable role in its overseas fishing activities and their associated geo-political and commercial implications.

Earning convertible currency was a key objective of expansion into distant-water fisheries in the 1980s when the Chinese economy was emerging from the isolation of the Mao Ze Dong era. This aspect is much less important now.

⁵⁷ The category of a 'company' refers to all entities that take the organizational form of a business enterprise, which includes privately-held and publicly-listed companies, business groups, and State-owned enterprises (SOEs).

China consistently provides several justifications for the promotion of distant-water fishing, including the following:58

- maintain national food security, alleviate the shortage of per capita resources, and ensure the supply of high-quality animal protein;
- implement industrial policy to improve the structure of the fishery industry, expand fisheries development, as well as improve the comprehensive strength of the industry and its international competitiveness;
- safeguard national maritime claims, rights, and interests;
- strengthen status and influence in relevant international fields; fostering friendly and cooperative relations with relevant countries; and actively participating in global ocean governance and international fisheries rule-making, including strengthening multilateral and bilateral fishery cooperation and exchanges (MARA, 2020a);
- promote the development of related industries such as ocean-going fishing vessels and equipment design and manufacturing; as well as aquatic product refrigeration, processing, and logistics;
- support the necessary national infrastructure development in partner countries (wharves, cold storages, dry docks, factories, and support services), which has a relational dynamic with fisheries-related diplomacy and increasing global reach; and
- develop scientific expertise and influence through research based on distant-water fishing activities.

To achieve these strategic objectives, the State has consistently sought to strengthen bilateral fisheries cooperation and encourage enterprises to establish mutually beneficial and long-term stable cooperative relations with fishing countries (Ministry of Agriculture, 2012).

Caution should be exercised when examining China's industrial policy, considering the propensity for sensationalist portrayals of the country as an economic menace (White House, 2018). The perception of China as a threat tends to conceptualise the State and Chinese export-orientated production as being a unified and coherent whole concerning the rest of the world, but ignores the dominance of direct foreign investment in China's manufacturing exports and the sharp competition between domestic companies and provincial authorities within China (Pan, 2009). Thus, when examining complex manufactured goods, it is crucial to consider the connections across territorial borders, such as the production networks spanning Asia. However, for simple manufactured products, the industrial strategy is arguably more straightforward regarding its economic effects, especially in global marine capture fisheries, where China recognized in the early 2010s that competition in distant-water fishing was intensifying and leading to "a problematic situation" (Ministry of Agriculture, 2012).

While the specifics of industrial policy may change with shifts in the internal balance of power

The list draws from the Ministry of Agriculture (2012); it correlates the key points against the more recent list by MARA (2020a), and elsewhere, as referenced.

within the Chinese Communist Party, the State consistently affirms its dedicated support for the promotion of distant-water fishing across international diplomatic and geopolitical, economic, legal and technological domains.⁵⁹

In particular, China's Going Global and Two Resources, Two Markets strategies have remained consistent over the last decade, including as applied in support of the distant-water fishing sector.⁶⁰ The Going Global or Going Out strategy was launched in 1999 to actively develop domestic enterprises in a dual strategy of supporting national champions to compete on the world market, and procure natural resources from abroad for processing in China. The 13th Five-Year Plan for 2016–2020 continued the policy, emphasising the expansion of high seas fishing and fish processing outside its national waters (CCCP, 2016). The 14th Five-Year Plan for 2021–25 promotes the idea of a double-development dynamic and prioritises innovation while continuing to push China's distant-water fishing. As a result, many domestic fishery logistics and processing centres focused on innovation and value-addition have been developed. These new seafood complexes have high expectations with regard to the volume of raw materials to be shipped from the distant-water fishing activities back to China (Government of China, 2020; Godfrey, 2020).

The Going Global policy was notably accelerated with the Belt and Road Initiative from 2013 and its component the Maritime Silk Road (MSR) Initiative, which represents substantive global infrastructure investment. For instance, the MSR identifies the distant-water fishing industry as a priority area, as reflected in China's projects to build overseas fishing bases, such as the Kyaukphyu development project in Myanmar (Radio Free Asia, 2019).

Central to the Going Global policy in China's distant-water fishing are the State-owned enterprises, such as China National Fisheries Corporation. These enterprises are called upon to carry out alliances that foster cooperation and maximise their contributions (Ministry of Agriculture, 2012).⁶¹ The Going Global strategy remains a main pillar in China's policy in 2022 but with expanded emphasis on a new development pattern for the whole industrial chain of distant-water fishing (MARA 2022a).

The Two Resources, Two Markets strategy suggested a complementary function for domestic and foreign markets in promoting China's economy (de La Bruyère and PICTarsic, 2021) which was updated in 2020 by the Dual Cycle Development strategy in response to the global economic vulnerabilities highlighted in the pandemic.⁶² This concept also recognises the articulation of domestic and international economic cycles, emphasising the stability of domestic demand (Tang, 2020). Existing support includes the longstanding policy of non-application of import tariffs on fish caught in foreign waters by the Chinese DWF that is sold in China (General Administration of Customs and the Ministry of Agriculture, 2000 and 2022); discounted loans from the Export-Import Bank of China, mainly for infrastructure construction; and direct government support with regard to insurance for transporting fish and other raw materials from Africa to China (de La Bruyère and PICTarsic, 2021).

The State is evident in its objective to promote the growth and strength of distant-water

⁵⁹ For example: "The State supports and promotes the sustainable development of distant-water fisheries, and establishes facilities with reasonable scale, scientific layout, excellent equipment and complete supporting facilities" (MARA 2020a, Art. 3).

⁶⁰ Contrast, for example, Ministry of Agriculture (2012) and MARA (2022b)

⁶¹ On China's State-owned enterprises, see Zhang, 2009; Jones and Zou, 2017

Interpretations of this policy can emphasise, on the one hand, the complementarity among markets and the associated efficient use of resources; or, on the other, can be more critical and frame this as a strategy where "the global market is to be penetrated while the Chinese one is, relatively, insulated. Foreign resources are to be siphoned while domestic ones are, relatively, defended".

fishing enterprises; expand the industrial chain; and enhance the quality and efficiency of development, with fishing capacity and access to fisheries as the initial steps (MARA, 2022a).

Fundamentally, China's policymaking is fragmented and contentious between the central government and provinces and regionally (Jensen, 2023). In particular, the Zhejiang, Shandong, and Fujian Provincial Governments have been the main growth drivers of China's distant-water fishing in the 2010s. The total horsepower of the Chinese DWF almost tripled, and the catch volume doubled between 2011 and 2020. Eighty percent of these new vessels and 86.8 percent of the catch can be accounted for by vessels from these three provinces (Zhou, 2023).

China sees upgrading as part of a high-quality development strategy in distant-water fishing; and the economy is more widely aiming to transform its industrial structure as well as enhance international competitiveness towards high value-added and innovation-driven activities. Most of China's exports are not generated by domestic companies but by local affiliates of foreign multinational corporations. The non-fisheries context is that "Made in China" does not necessarily mean that the goods were made by China (Pan, 2009). For most of the 1980s, China's manufacturing exports were not capital- and technology-intensive. They relied on labour-intensive assembly, with much of the value-addition contributed by the more advanced East Asian countries, where the high-tech components were produced (Gaulier *et al.*, 2007). The problem for China was that these multinational corporations often focused on the country's static comparative advantages, such as labour (Zhang, 2007).

In the early 2010s, the State identified significant disparities compared to competing DWFNs in terms of equipment level, production efficiency, scientific and technological support, and comprehensive development capabilities (Ministry of Agriculture, 2012). The State focused on supporting technological innovation and vessel construction in ultralow temperature tuna longlining, purseseining and largescale trawl processing to narrow this gap; including implementing energysaving and consumptionreducing technologies, automation, and digitisation.

The 14th Five-Year National Fishery Development Plan (FYP) of China, which spans from 2021 to 2025, was formally approved by the National People's Congress in March 2021. Following its publication, sector-specific FYPs were subsequently developed. For instance, the FYP for distantwater fishing follows the general FYP for fisheries growth. Consequently, there is a delay in updating and issuing laws and policy frameworks following the issuance of the national FYP (personal communication, June 2023). In this context, a flurry of legislation and policy frameworks for the distantwater fishing sector were issued on the back of the 14th Five-Year Plan.

Meanwhile, the evolving Going Global policy has matured into a focus on the stabilisation of the scale and number of enterprises in the Chinese distant-water fishing sector through agglomeration; the promotion of vessel modernisation and standardisation; product and process innovation such as the manufacture of energy-saving vessels; the use of artificial intelligence and digitisation; and full-industry supply chain management integrating fishing, processing, the cold chain, distribution, markets, and the creation of many high-end well-known brands (MARA, 2022a).⁶³

7.2.2 Principal institutions

China exercises control over its distant-water fishing through a comprehensive system of interconnected national legislation, regulations, and normative documents such as development plans and opinions. These stem from several bodies such as the Central Committee; the State Council; several ministries, including the Ministry of Agriculture and Rural Affairs, the Ministry of Foreign Affairs and the Ministry of Public Security; the General Administration of Customs; and the largely autonomous Coast Guard (personal communication, June 2023). State-owned enterprises play a crucial role in China's distant-water fishing to the extent that coastal provinces frequently have a significant level of independence in implementing additional regulatory measures.

The Chinese political system is centred around the General Secretary of the Chinese Communist Party, who concurrently holds the President and Head of State positions. Formal policy direction emanates from the Politburo, which is presided over by the Standing Committee of the Chinese Communist Party. As an illustration, the 17th Central Committee of the Party reached a consensus at its Third Plenary Session to bolster and advocate for the distant-water fisheries (Ministry of Agriculture, 2012). The political guidance is then conveyed to the National People's Congress, which is further transformed into fisheries administrative policies by the Fisheries Department of the State Council. The State Council assumes primary responsibility for fisheries management nationwide, as stipulated in the 1986 Fisheries Law which was amended in 2013 (People's Republic of China, 2013; Art. 6).

The MARA is the leading institution in charge of matters relating to fisheries and aquaculture. Its Bureau of Fisheries is responsible for the planning, organising, and management of fisheries and aquaculture, including distant-water fishing; facilitating the implementation of project approvals; and managing a qualification system for companies involved in the distant-water fisheries; thus, indicating that it has oversight over all Chinese distant-water fishing companies (MARA, 2022a; Art. 4,6, and 7). Further, national-scale State-owned enterprises under the control of the Central Government control (the China National Fisheries (Group) Corporation) are required to report to the MARA (MARA, 2022a; Art. 9).⁶⁴

At a lower level, coastal provincial governments have fisheries administration departments responsible for the planning, organisation, supervision, and management of the distant-water fishing sector within their respective administrative regions. Companies involved in distant-water fishing that are not national-scale State-owned enterprises must apply for approval from their relevant provincial authority (MARA, 2022a; Art. 9). Most distant-water fishing companies cannot legally engage in overseas fishing without this provincial authority approval. Further down the hierarchy at city and county levels, the local fishery administrative departments assist their respective provincial departments (People's Republic of China, 2013; Art. 3 and 9).

Many State-owned enterprises are organized at provincial level, not the national level. Article 9 means that State-owned enterprises with genuine national coverage are supervised directly by the institutions under the State Council and thus relate directly to the MARA (personal communication, June 2023).

The China Overseas Fisheries Association (COFA) encourages distant-water fishery enterprises to voluntarily establish distant-water fishery associations following the law to enhance industry selfmanagement, safeguard the rights and interests of members, and ensure compliance with legal requirements (People's Republic of China, 2013; Art. 5). The State's requirement for cooperation amongst companies is explicit, where:

"...two or more distant-water fishery enterprises operate in the same country (region) or sea area or engage in the same species and type of operations. Enterprises should establish a self-coordination and self-discipline mechanism, accept the guidance of industry associations, and cooperate with relevant government departments to coordinate and manage". (MARA, 2022a; Art. 36).

While the Bureau of Fisheries within the MARA holds ultimate management and control over China's distant-water fishing enterprises, COFA is also involved in serving as a communication channel between the Government and fishing companies engaged in overseas fisheries. It also monitors the implementation of China's regulatory measures on distant-water fishing. To fulfil its mission, the Government requires membership in COFA by all Chinese companies fishing outside of China's EEZ, irrespective of the fishery. Although COFA operates independently from the Government, it performs certain government-like functions, including a vessel monitoring system centre for all China-flagged distant-water fishing vessels. In addition to these responsibilities, COFA assists distant-water fishing enterprises in situations where diplomatic solutions are impractical; manages the allocation of fishing quotas; represents companies in negotiations for overseas fishery access; and participates in RFMO meetings. COFA effectively serves as a gateway for companies seeking access to global fisheries (Campling, Lewis and McCoy, 2017).

7.3 Laws and regulations

7.3.1 National fisheries laws on distant-water fishing

The overarching national law on distant-water fishing is the Fisheries Law of China which was amended in 2013 (People's Republic of China, 2013). The Fisheries Law has the highest status in China's legal system as it was issued by the Standing Committee of the National People's Congress. In 2023, discussions were initiated in the State Council regarding a new revision of the Law, which is expected to be passed in 2024. The anticipated amendment may introduce significant changes, including stricter penalties for IUU fishing and more severe consequences for law violations. However, it is not predicted that it will provide specific details regarding FAAs (personal communication, June 2023).

The Fisheries Law emphasises that aquaculture is the primary focus, and that equal importance should be given to developing fisheries, aquaculture, and processing. While the coverage of distant-water fishing is somewhat general, the Law does signal that industrial policy tools such as finance, credit, and taxation can be utilized to encourage and support the development of the distant-water fishing industry (People's Republic of China, 2013; Art. 3 and 21). Article 23 of the Fisheries Law primarily aims to determine the different levels of government for granting fishing authorisations. The State Council grants permits for jointly-

managed fishing areas (for example, between China and Japan; China and the Republic of Korea; and China and Viet Nam) and fishing on the high seas. Provinces or autonomous regions grant permits for fishing areas in China's EEZ (Zone C as defined in the Fisheries Permit Regulation) by large-scale trawling and purse-seining vessels. Local governments permit fishing in China's EEZ, territorial seas, and inland waters by vessels other than large-scale trawlers and purseseining vessels. Additionally, the State Council, in collaboration with the authorities of the relevant countries, provides permission for fishing in seas under the jurisdiction of other countries (People's Republic of China, 2013; Art. 23).

In order to be eligible for a license, specific requirements must be fulfilled, such as obtaining vessel registration and inspection certifications (People's Republic of China, 2013; Art. 24), as outlined in separate regulations, such as the domestic Certification of Distant-water Fishing Vessels (Ministry of Agriculture, 2009); the Regulation on Administration of Fishing Licenses (which focuses on non- distant-water fishing activities) (MARA, 2022c); and regulations on fish vessel inspection (MARA, 2019a). Furthermore, entities engaged in fishing must adhere to the licensing requirements, including rules regarding fishing gear, operational time and zone, and the maintenance of fishing logs (People's Republic of China, 2013; Art. 25).

Beneath the Fisheries Law, there are several administrative regulations and normative documents of the State Council, including the Detailed Rules for implementing the Fishery Law of China (second revision, 2020). Article 15 sets out the permit systems for distant-water fishing wherein operators must first apply to provincial fisheries authorities and then submit applications to national fisheries authorities for approval. Vessels operating in waters under other countries' jurisdiction must obtain approval as prescribed (Article 17).

A key document is the 2020 Regulation on the Administration of Distant-Water Fisheries, which updates various elements across many regulations related to distant-water fishing enterprises. This Regulation emphasises the importance of complying with laws and is hereafter referred to as the MARA 2020 Regulation. For example, it sets the conditions for which a company can qualify as a distant-water fishing enterprise and be eligible for a wide range of State support associated with distantwater fishing projects (MARA, 2020a; Art. 8); including the need to:

- be registered with the relevant supervisory department, have an independent legal personality, and a business scope which includes distant-water fishing;
- legally possess fishing vessels that meet national regulatory requirements for engaging in distant-water fishing;
- have the economic strength to undertake distant-water fishing operations and be able to bear the risk of accidents;
- have full-time management personnel who are familiar with distant-water fishing policies, relevant laws and regulations, and foreign conditions; and have more than three years of experience in distant-water fishing production and management; and
- there is no record of being disqualified as a distant-water fishing enterprise by the MARA within three years before the application.

One requirement is that distant-water fishing companies and their overseas representatives thoroughly comprehend the legal and institutional environment, and conditions in the coastal State where they operate. Crews, company managers, and project leaders must learn international fisheries laws and regulations, acquire local knowledge, and undergo training provided by the Government (MARA, 2022a; Art. 19).

Once a company has qualified as a potential distant-water fishing operator, it can apply for a "distantwater fishing project" with its respective provincial authority. In addition to submitting a project application report and a feasibility study outlining the intended operations in the waters of another national jurisdiction (MARA, 2020a; Art. 10, 12, 14 and 19), the application process requires the submission of four additional sets of documentation:

- an FAA with the coastal State party, or a certificate issued by the competent government department agreeing to allow the relevant distant-water fishing company to enter the fishery;
- the opinion of the Chinese Embassy or consulate in the country where the project is located;
- a "Certificate of Enterprise Overseas Investment" which is issued by the Ministry of Commerce; and 65
- where appropriate, a registration certificate is issued by the relevant government department of the coastal country.

The distant-water fishing project application process also requires the company to provide relevant certificates for the fishing vessels that will be deployed, including an ownership certificate, a registration (nationality) certificate, and a vessel inspection certificate.

According to the MARA 2020 Regulation, distant-water fishing companies must report catch and economic data monthly to the provincial level, which is consolidated and reported to the MARA. The Ministry annually reviews all distant-water fishing projects before renewing the MARA Distant-water Fishery Enterprise Qualification Certificate (MARA, 2020a; Art. 15 and 19).

These requirements ensure that the Ministry and provincial fisheries departments can legally trace the beneficial ownership of all China-flagged distant-water fishing vessels. They also maintain records of all FAAs and are thus capable of identifying any violations. Additionally, all China-flagged distantwater fishing and support vessels must have vessel position monitoring systems and are incorporated in the MARA's vessel monitoring system. Assessment of compliance with this system is included in the annual review of all distant-water fishing projects (MARA 2019b; Art. 2 and 3).

For projects which will be conducted by a joint venture or company registered in the fishing State, but held by Chinese citizens, the applicants shall also submit a certificate by the Ministry of Commerce. The certificate is granted to an enterprise which plans to invest in a foreign country. In addition, the registration documents for the company, as granted by the foreign country, should also be provided.

7.3.2 Implementation problems

China faces significant challenges in implementing its regulatory systems which govern its national distant-water fishing industry. In 2014, the MARA acknowledged the negative impact of fishery violations and foreign-related incidents on the image and development of the distant-water fisheries. The Ministry emphasised the importance of complying with national regulations and foreign jurisdictions' fisheries management systems, particularly for newly engaged enterprises in distantwater fishing (Ministry of Agriculture, 2014). The autonomy of coastal provinces poses a significant challenge to Beijing's control over the distant-water fishing sector. Despite the central government's target of 1.3 million tonnes in 2015, distant-water fishing catches reached 2.192 million tonnes due to the support for distant-water fishing expansion from coastal provinces (Zhou, 2023).

The 2017 13th National Fisheries FYP introduced stricter legal actions against IUU fishing and imposed limits on China's distant-water fishing expansion (Ministry of Agriculture, 2017a; Cao et al., 2017; Song et al., 2022). The main reform was to cap the DWF to 3 000 vessels by 2020, constrain the number of distant-water fishing enterprises, and instead focus on industrial upgrading (Mallory, 2017). There is a lack of publicly accessible official data regarding the operational scale of China's distant-water fishing, which hinders the ability to confirm the maximum capacity. However, according to one source, the cap was adhered to, and the total number of vessels in the distant-water fishing sector in 2020 was 2 705 vessels (Zhou, 2023).

This policy shift in distant-water fishing governance was taken further in the early 2020s. The country plays a more significant role in ocean governance than previously dominant DWFNs like Japan and Spain, thanks to the size of its DWF, market, and fish products exports (Godfrey, 2020; Song *et al.*, 2022). The Ministry of Agriculture and Rural Affairs seeks to establish the Chinese DWF's image as being responsible, and it works to combat this negative record of violations in coastal State waters through a series of regulatory interventions. These interventions include cracking down on IUU fishing activities, actively participating in global fisheries governance, earnestly fulfilling international obligations, and establishing a responsible country image (MARA, 2022a).

The MARA 2020 Regulation reiterates that distant-water fishing operations must abide by the terms and conditions of the access agreement, as well as the laws and regulations of the host country. Penalties are outlined for operating without approval in other countries' waters or using prohibited fishing gear or methods. Article 39 of the Regulation provides 13 conditions that, if not complied with, are considered a breach of law. For example, distant-water fishing vessels should maintain a safe buffer distance from the outer limit of unauthorised operating sea areas and avoid operating in disputed waters of relevant countries (MARA, 2022a; Art 32 and 39). Any violation may result in the suspension or withdrawal of the qualification as a distant-water fishing enterprise. While the monetary penalty is important, losing status as a distant-water fishing enterprise has a far more severe commercial impact for operators (personal communication, June 2023).

In 2022, the Ministry committed to enhancing fishery law enforcement capabilities, albeit focusing on domestic fisheries (MARA, 2022e). The 14th Five-Year National Fisheries Development Plan for China's distant-water fishery, also released in 2022, outlines several

initiatives to meet China's compliance requirements. These initiatives include strengthening fisheries science capabilities, collaborating with coastal States in joint policing against IUU fishing, training observers, and strengthening national fisheries policy systems (MARA 2022a). A parallel action plan focussed on tuna requires China's distant-water tuna fishing vessels to strictly implement fisheries CMMs, submit data promptly; and it emphasises that any violations will be thoroughly legally investigated and dealt with.

The MARA puts considerable emphasis on distant-water fishing companies and the China Overseas Fisheries Association to ensure proper implementation of FAAs, from contract implementation to negotiation support (MARA, 2022d).⁶⁶ It maintains a negative list of distant-water fishing operators who have committed serious violations of laws and regulations, which have prohibited them from engaging in distant-water fishing operations for a minimum of years for management and project leaders, and five years for captains (MARA, 2020a; Art. 34).

Further guidance was released by the Ministry, also in 2022, on "regulatory improvement" in distant-water fishing. This guidance emphasized the implementation of stricter compliance supervision measures for distant-water fishing vessels (MARA, 2022f), including better management of transshipment on the high seas (MARA, 2020b); improved compliance of ocean-going fishing vessels with the requirements of coastal States; implementation of the fishery management regulations with a focus on strengthening the monitoring and security of ocean-going fishing vessels; and encouraging distant-water fishing enterprises to integrate more effectively with the local society in order to drive economic development and employment income. This last point acknowledges the development aspirations of some coastal States regarding FAAs, especially the second-generation type.

In addition to the regulatory and surveillance areas of focus, MARA provides incentives to distantwater fishing companies that demonstrate exemplary performance through the annual renewal (or nonrenewal) of the MARA Distant-Water Fishery Enterprise Qualification Certificate. This Certificate grants companies access to a comprehensive range of State support policies for distantwater fisheries in accordance with the relevant regulations (MARA, 2020a; Art. 19). Unfortunately, accessing data on this annual review process and whether any distant-water fishing projects or vessels were decertified, was not possible.

7.3.3 Coastal State fisheries development

China has long emphasised the potential for mutually beneficial fishery cooperation with some developing countries (MARA, 2020a). This recognition is based on the varying status of stocks. China formally focuses on fisheries where marine populations are relatively sustainable, or stabilisation is feasible. The 14th Five-Year National Fisheries Development Plan of China, released in 2022, places considerable emphasis on good relations with resource-holders in distant-water fisheries. In a section on tuna fisheries, MARA sets out a plan to:

"carry out long-term friendly and mutually-beneficial cooperation with resourcerich coastal countries and regions, and promote the construction of fishery cooperation projects according to the development needs of resource-rich countries, to drive the

The negative list is not available in English. It consists of persons (e.g. vessel managers), not vessels or companies.

development of fishery economy in resource-rich countries". (Ministry of Agriculture, 2012).

More broadly, the MARA document categorises resource-holding regions into three groups, in which different strategies are outlined for each group:

- In the traditional areas of cooperation over resource access, such as West Africa and Southeast Asia, the emphasis is on controlling the number of distant-water fishing enterprises, avoiding disorderly competition, accelerating the upgrading of old vessels, and regulating the fleet size.
- In emerging regions such as East Africa and the Pacific Islands, the focus is on innovative cooperation models; expanding development opportunities; promoting intergovernmental fisheries cooperation that integrates local development needs and cooperation in the entire industry chain; and driving coordinated local economic and social development (MARA, 2022a). It aligns with the development aspirations of PICT, East African coastal States, and Western Indian Ocean SIDS, which often seek second-generation arrangements that support onshore development. China's approach acknowledges the need for access strategies to compete with historically entrenched fisheries resource-seekers in specific regions.
- For fisheries partners, including in Latin America, West Asia, the Near East and South Asia, the Ministry adopts a more "arms-length" approach on sharing data and bilateral cooperation on fisheries management. This can reflect the lack of access opportunities available to distantwater fishing, given that Latin America and India exclude foreign fishing from their EEZs (FAO, 2022).

China continues to have formal oversight of its distant-water fishing even where they are engaged in secondgeneration projects. Under the MARA Regulations on the Administration of DistantWater Fisheries, if a distant-water fishing operator needs to acquire the nationality of other countries before they can operate in those countries' waters, they should follow the 'Fishing Vessel Registration Measures" to facilitate the suspension or cancellation of Chinese-nationality registration. Once registered by another country, the distant-water fishing operator must provide the Ministry with the vessel license, registration, and inspection certificate issued by the competent authorities of the host government (MARA, 2020a; Art. 19 and 21).⁶⁷ This process appears to primarily serve as a means to supervise the operations of distant-water fishing by Chinese citizens, even if they do not use vessels registered in China. Whether second-generation projects continue to benefit from the incentives available to operators holding a MARA Distant-Water Fishery Enterprise Qualification Certificate, is unknown.

China's commitment to supporting the development aspirations of resource-holders is further explained in a circular issued by the MARA in 2022. This circular outlined a plan to fund the construction of a network of overseas distant-water fishing operations, covering up to 30 percent of costs for Chinese investors. It explicitly states that China aims to establish well-organised and well-equipped facilities; and extensive clusters, to improve the "going out" level and promote the distant-water fishing industry. It also emphasises the

⁶⁷ Also, Measures of China on the Registration of Fishing Vessels, Article 19

importance of industrial agglomeration and deep integration with the host country, aiming to achieve a development pattern characterised by internal and external linkages, functional complementarity and industrial synergy (MARA, 2022b). To be eligible for these forms of official support, companies must have at least three years of experience in distantwater fishing operations and obtain relevant foreign direct investments permits.

At the same time, China continues to prioritise support of its domestic fishing port industrial complexes (MARA, 2022b), which have traditionally relied on resources obtained from distant-water fishing. Likewise, investment focuses on building overseas fishing bases to support the Chinese DWF in obtaining fishery rights, offering logistics and emergency services, and training for fishing crews (Ministry of Agriculture, 2017b). This scenario underscores a possible clash between the resource needs of second-generation projects and DWFNs, which aim to utilize foreign-caught fish for local economic purposes. Given that marine fisheries are an absolute resource whose volume is more likely to decrease than increase, this contradiction cannot be reconciled without alternative strategies in place for distantwater fishing operations withdrawing from fisheries.

O Conclusion

8.1 Resource-holders

The highly contrasting cases of approaches to FAAs used by Ghana, Namibia, and the Pacific Islands' resource-holding governments suggest many analytical points. First, different fisheries as well as physical and human geographies matter. Despite the ubiquity of access relations, the case studies reveal that FAAs reflect the "conditions of production" in each distinct fishery - the ever-shifting combination of regulatory, commercial, and ecological conditions that form dynamic extraction practices - as well as the historical and contemporary institutional and political relations in the sector. Therefore, while FAAs can be typologized into broad categories such as first- or second-generation that signal participants' extractive practices and policy aspirations, their actual functioning and implementation are place- and context-specific. For instance, the potential for onshore investment related to access, or the potential for conflict between distant-water fleets and SSF will be distinct for demersal and pelagic fisheries. There will also be influence by factors such as the presence or absence of civil society or organised labour; shifting geopolitical concerns related to political influence or recognition and ODA; and the historical institutional and legal structures of global, regional and national law and policy. The conditions vary from fishery to fisher, and thus movements towards better practices in FAAs are essential; and the nature and outcomes of FAAs and proposals will ultimately be an empirical question that is specific to each case. An underlying finding of this report is that the ability to earn revenue from FAAs reinforces the status of a fishery as a public asset. At a minimum, the overall revenues and catches from FAAs should be reported, even if some resource-holders prefer to keep individual arrangements commercialinconfidence for strategic reasons. If access is provided for free, or discounts are applied to encourage domestication, then this information should be in the public domain. For instance, if government revenue is forfeited to induce domestication (second-generation FAAs), then this loss of public revenue must be accounted for, even by economics or finance ministries outside fisheries agencies. If there are no distributional gains from FAAs beyond elite capture, then resource-holders maximising rent from the public asset is the best strategy.

The resource-holder case studies also indicate that timing matters, especially concerning crises such as stock collapse, domestic political turnover, or geopolitical challenge, which can provide opportunities for speeding-up institutional change and improvement of FAA terms and conditions. For example, one feature of Namibia's immediate post-independence experience stands in stark contrast to many case studies in developing countries: the Government was able to make fundamental changes to rights allocations that had significant economic consequences for distant-water fishing incumbents, and it did this more than once. Timing and territorial embeddedness matter: reforms that would have no possibility of success under normal circumstances may be implementable in the aftermath of an event that changes the status quo. For example, a stock collapse creates a context in which reform is feasible that had not been possible during many previous years of overfishing.

Embedded domestic expertise can play a crucial role. However, alternatives are available, which involve avoiding "perfect" economic theory approaches to FAAs in favour of what works in the context of distinctive cultural and political economies, historical institutions, and juridical-legal systems. The PICT VDS shows that careful rent analysis that is attentive to differences within and across fleets, vessel types, and market outlets can be an integral component of FAA strategy. However, this has required technical and political competence, and close political alignment between analysts and resource-holders, which may be difficult to replicate in all contexts. For example, an empirical question remains whether a more open auction-based approach could achieve similar results to the VDS with a much less detailed understanding of available rent.

Resource-owning States use their sovereign rights over marine fisheries resources in their EEZs to dictate terms and conditions of access. These often relate to broader national economic and environmental objectives around development, sustainability, and geopolitical alliances. Increasingly, civil society organizations of multiple types are also shaping discourse around access and seeking to directly influence the terms of access via lobbying and direct-action efforts. These organizations range from locally focused SSF organizations to some of the world's largest international environmental NGOs. Likely, more progressive resource-holders will increasingly make genuine social and environmental sustainability as conditions for access (development of SSF, inter-generational justice, and working conditions); considering that domestic constituencies and also external ones such as States, public and private buyers in the European Union and the United States of America pay increased attention to social and environmental sustainability in industrial fisheries.

There are tensions in domestication policies (second-generation FAAs) across the resource-holders that use them, considering that the creation and then growth of domestic fishing companies is often at the expense of the forgoing of the public resource dividend. One vulnerability of domestication lies with domestic partners in fishing companies predominantly represented by those with political influence. In some cases, fees are set so low that the government funds fisheries by covering part of the cost of its management. FAAs, therefore, can not only contribute to the depletion of a public resource but further transfer public wealth to foreign companies and a small number of citizens.

The challenges posed by State capture are tough to overcome. However, Namibia's response to addressing political challenges in its FAAs provides some practices that could be considered elsewhere. This includes bringing in a separate ministry to manage access revenue, which could be deposited in a distinct government account such as a sovereign resource fund. The separation of responsibilities between managing fisheries and handling resource rents is attractive for several reasons. It undermines the inherent conflicts of interest of having one government organization responsible for both of these functions, especially where the operating budget of the Ministry for Fisheries is dependent on the revenues from commercial fisheries licensing. Ideally, revenues from commercial fishing would be handled separately; one charge would relate to the cost of fisheries management and the other would be used to generate a public dividend if this were an objective of national fisheries policy.

Local content policy associated with second-generation type arrangements can suffer from confusion that arises from the distinct and arguably unrelated objectives of employment and commercial ownership or control. Ghana, Namibia, and several PICT, notably Fiji, Papua New Guinea, and the Solomon Islands, have centred on FAAs to generate onshore employment. Most economies that implement local content regulations typically have elevated levels of unemployment and possess a surplus of lowskilled or inadequately qualified workforce that does not align with the present job market demands. The underlying diagnosis is that the economy has too much unskilled labour relative to the locally available investment capital and entrepreneurial skills. Local content policy can tilt the balance by attracting investment from outside the economy and encouraging it to use local workers, hopefully then also building local human capital by developing a skilled workforce.

Participants at opposite ends of the spectrum of rent maximisation and domestication through coupled benefits, do not necessarily differ in their high-level objectives. For instance, both set employment generation as their top priority. A difference is that a rent maximiser first obtains the highest return possible from FAAs and then decides the most economically efficient way of using that wealth to create jobs, which may relate to fishing or unconnected sectors or through sector-neutral investments such as education and general infrastructure. Meanwhile, countries seeking coupled benefits typically prioritise employment in fish processing or services for vessels regardless of whether a greater quantity or quality of employment could have been generated elsewhere. There are several reasons why this may be preferred, such as the necessity to examine and determine effective methods of utilizing government funds to generate long-lasting, high-quality jobs, despite the intricacy involved and the potential absence of impartial, top-notch analytical capabilities. Moreover, it necessitates the movement of funds through a sequence of government agencies that operate with a shared aim in a generally open manner; this can be extremely difficult in

government systems with little administrative competency and extensive dishonest dealings. One benefit of tightly coupling employment generation to the fisheries sector is that it is a way to make a single institution (for example, the Fisheries Ministry) accountable, a plausible strategy for coping with these challenges. However, this approach has had limited or no success in all the resource-holders examined in this report.

In an economy where domestic capital is scarce, local content policy tries to coerce the owners of capital to invest in an industry they have already declined to do so, presumably because the perceived profitability is low, or the risks are high compared to other available opportunities. There is also a stark difference in practicality between the two strands of industrial policy motivated by employment and commercial ownership or control. Confirming that nationals work for a company may not always be straightforward. Still, it is much more practical than designing and implementing a policy that assesses who beneficially owns or controls a business. Unless complexities such as partial foreign ownership being forbidden and regulation invasive, standard business practices such as transfer pricing enable companies to obfuscate beneficial ownership without difficulty. There is likely no country in the world with the administrative capability to fully investigate and address such activities to ensure that a policy promoting local ownership achieves its intended goals.

"Control" adds an extra layer of intricacy. It can be combined with the concept of "ownership" to partially recognise the complexity of identifying ownership. However, ownership alone is not enough to categorise the situation, especially in a global economy where dominant companies in the seafood industry can exert control over suppliers through risk transfer, cost imposition, and value extraction in exchange for market access (Havice and Campling, 2017). But in the context of fisheries, "control" of the fishery could also be viewed as being made up of powers such as:

- the ability to enforce scientifically-driven quotas that keep stocks in a healthy condition;
- the ability to extract the total value of the resource rent of the fishery and use it for the benefit of the wider population (or even the ability to protect taxpayers' money from the support of the government to an industry that is not a political priority for the majority of the population);
- the ability to make meaningful changes to the way the fishery operates in order to respond to domestic political priorities (such as improving labour standards and landing more fish domestically); and
- the ability to enforce and legally punish rule-breaking, including IUU fishing.

Ironically, many case studies suggest that achieving these objectives can be extremely difficult in an industrial fisheries sector composed of a small number of fully-domestic companies with an entirely domestic workforce. Examples of countries capable of exercising these abilities are less common. However, the Pacific VDS' experience implies they may be more achievable with limited local involvement in the fisheries. Thus, the objective of governments in retaining authority over the fishery and the aim of domestic investors to manage the industry, may be fundamentally contradictory.

8.2 Resource-seekers

The legal and technical forms of FAAs vary significantly. This report outlines different approaches to the institutional structure and economic rationales of FAAs and how these are enacted in practice by the relationship between resource-holders and resource-seekers. A key finding of this research is that FAAs are temporally dynamic as resource-owning and resource-seeking countries and companies change and experiment with how the structures of FAAs might best achieve their shifting goals and objectives.

For example, while many FAAs are historically bilateral, the report showcases two instances, the Pacific Islands and West Africa, in which resource-owning States have collaboratively managed access when they share governance of highly migratory and straddling stocks. Conversely, the report also highlights the political-economy influence and often raw power of DWFs in seeking to shape the terms of FAAs.

The reports finds that resource-seeking distant-water fishing companies must be centred on analyses of FAAs. The companies involved come in various forms, ranging from small, private companies that own one or two vessels to large, vertically integrated corporations that own fishing vessels and other nodes in fisheries production, such as processing and branding. State-owned enterprises are also an important part of several fleets, especially in China; but also, historically, for resource-holders like Ghana and some PICT. Reading across the six case studies clarifies that distant-water fishing companies can gain access in various ways: registering and flagging with their "home" DWFN, registering under other flags, or complying with policies and laws in resource-owning States that grant access. There is a compelling need for future research to understand and study distant-water fishing company structure to assess the potential economic and social outcomes of access strategies.

Furthermore, the extent of any rent that can be extracted from distant-water fishing companies by resource-holders depends upon a company's operational dynamics and regulatory structures, as well as their industrial organization within the global value chains of which they are a part. While all companies aim to generate profit, some do so more efficiently than others, and decisions related to access affect that profitability. In this particular situation, the phenomenon of political dishonest dealings is reciprocal, where both those seeking and providing resources share equal responsibility and should be held accountable.

This report identifies many geopolitical-economic dynamics in FAAs, one of which is the varied ways resourceseeking States use official development assistance and other financial flows to influence FAA outcomes to the commercial advantage of their home DWFs. The tools used vary from direct governmenttogovernment transfers as access compensation, coupled development assistance, and formally delinked loans or infrastructure investment (including fishing bases). A second is how resourceseekers competing for access constitutes a basis for rivalry among some DWFNs; government policy on FAAs can make direct reference to the objective of countering the maritime expansion or incursion of one DWFN into a perceived sphere of influence of another. A third is how industrial fisheries and the FAAs essential to their commercial reproduction, are seen as an explicit tool of industrial policy to support food security and development in the respective DWFNs' domestic economies.

In these ways and others, FAAs are not simply about "fish" but are tools of geopoliticaleconomic competition among States seeking to use other countries' natural resources as raw material in the accumulation strategies of "their" companies, at home and abroad.



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