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ORIGINAL ARTICLE



The European Union's fishing activity outside of European waters and the Sustainable Development Goals

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Abstract

The EU's fishing fleet engages in extensive fishing activities in the Exclusive Economic Zones of non-EU countries as well as in areas beyond national jurisdiction. These activities are regulated by an external dimension in the EU's Common Fisheries Policy (CFP). We review the relationship between the CFP, including regulations for the Sustainable Management of External Fishing Fleets (SMEFF) and the role of Sustainable Fisheries Partnership Agreements (SFPAs) and Regional Fisheries Management Organisations (RFMOs), and the internationally agreed aims and definitions of sustainability provided by the United Nations Sustainable Development Goals (SDGs). The SDG that most directly relates to fish and fisheries is goal 14, to "conserve and sustainably use the oceans." This paper, however, focuses on relationships between the CFP and SDGs that target social and economic dimensions, including those aiming to eliminate poverty (1) and hunger (2), improve health (3), provide decent work and economic growth (8), and achieve gender equality (5) and peaceful institutions (16). We identify several areas where the EU's external fishing fleet interacts with different facets of those goals, and suggest some important improvements that can be made to support the development of the EU's external fleet into a contributor, rather than counterforce, to sustainable development in line with commitments under Agenda 2030. We provide a first and broad overview of an important area for future interdisciplinary research. We conclude by identifying specific questions that can provide starting points for further in-depth analyses of the sustainability of EU fishing activities in external waters.

KEYWORDS

Common Fisheries Policy, external fishing fleet, Regional Fisheries Management Organization, small-scale fisheries, Sustainable Fisheries Partnership Agreement, United Nations

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1 | INTRODUCTION

With technical improvements in fishing gears, more fuel-efficient and longer-ranging fishing vessels, improved safety at sea and extensively globalized seafood supply chains and markets, many nations now fish well beyond the boundaries of their Exclusive Economic Zones (EEZs). This fishing activity occurs both in areas beyond national jurisdictions (ABNJ) and inside the EEZs of other countries. Such external, international fishing effort provides economic opportunities for states and companies able to invest in the means required to fish further afield. It does, however, produce mixed outcomes for states whose EEZs are exploited by external fleets (Amusan & Oloba, 2019; Antonova, 2016; Kaczynski & Fluharty, 2002), or whose offshore neighbouring EEZs or ABNJ are impacted by increased fishing pressure (Belhabib et al., 2018; Rousseau et al., 2019; Tickler et al., 2018).

The European Union (EU) has a significant fleet that is active in non-EU waters, regulated by the external dimension of the Common Fisheries Policy (CFP). The framework for external fishing activities pursued by EU member states is complex and includes interactions between multiple policy instruments, agreements and management organizations (Barnes et al., 2020). In many instances, the inherent complexities of these multi-national, multi-instrument activities make this arena difficult to navigate or assess. While fishing activities within EU waters are documented annually, comparatively little has been reported about the external fishing fleet. A lack of formal documentation and scientific data as well as cases of misreporting and continued problems of illegal, unreported and unregulated (IUU) fishing makes it difficult to evaluate the sustainability of the EU's external fishing practices. Evaluations of the utility and conservation successes of current practices of the EU's external fleet are scarce, and the relationship of these practises to the United Nations (UN) Sustainable Development Goals (SDGs), adopted in 2015, remains a grey area (Zimmermann, 2017). This lack of evaluation is lamentable, especially considering the arguably inherent unsustainability of EU countries extracting and benefitting from the resources-nutritional as well as monetary—of developing states.

This paper reviews the relationship between the EU's external fishing fleet and the sustainability framework established by the SDGs. The SDG that most directly relates to fish and fisheries is goal 14, to "conserve and sustainably use the oceans, seas and marine resources for sustainable development," addressed through measures such as marine protected area (MPA) targets, increased fishery stock assessments, fisheries subsidy limitations and ecosystem-based management. Importantly, impacts and benefits from fishing extend beyond the immediately affected marine ecosystem and are closely linked to many other SDGs, including goals aiming to eliminate poverty (1) and hunger (2), improve health (3), provide decent work and economic growth (8), and achieve gender equality (5) and peaceful institutions (16). While the targets of SDG 14 are central to marine sustainability, in this paper we focus on the relationship between the EU's external fishing fleet and the social and economic dimensions

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targeted by SDGs beyond goal 14. We recognize that we will not be able to provide a comprehensive analysis of this topic within a single paper; our aim is rather to make a start towards developing what we consider to be an important cross-disciplinary area for further research.

We start by briefly describing the policy framework for the activities of the EU's external fleet. We then use specific case studies to illustrate how the CFP relates to elements of the SDGs as well as where the CFP and the EU's external fleet may fall short or even work against them. We conclude by highlighting some areas for improvement within the CFP's external dimension in order to align its policy framework for external fisheries management with Agenda 2030. Finally, we identify areas for further research, including questions that address the basic premise of whether the EU's external fishing activities can be made compatible with the UN's global framework for environmental and social sustainability, and if so, how that can be pursued.

2 | THE POLICY FRAMEWORK FOR THE EU'S EXTERNAL FISHING FLEET

2.1 | The EU's common fisheries policy

The EU is the largest market for fishery and aquaculture products globally, with net imports reaching >€24 billion in 2018 and seafood product exports of € 5.3 billion. Furthermore, 28% of the EU's catch comes from non-EU waters (20% from ABNJ and 8% from fishing agreements) (Anonymous, 2016b). The EU's Common Fisheries

Policy (European Commission, 2013) has significant impacts both within and outside of Europe. It was introduced at a time when the unrestricted access to fisheries resources was coming to an end due to the ratification of the legally binding United Nations Convention on the Law of the Sea (UNCLOS) (Hoagland et al., 2001). Signed by 166 states including the EU, UNCLOS enables nations to declare their EEZs up to a 200 nautical mile limit from their respective coastlines. UNCLOS also defines the rights and responsibilities of nations with respect to their use of marine resources, guidelines for businesses, protection of the marine environment and sustainable management of natural resources. Although the total EEZ areas now cover approximately 35% of the ocean, UNCLOS brought around 90% of global fishery resources under the control of coastal states.

At the time UNCLOS was ratified, the EU's international fishing fleet was already active in ABNJ and within the coastal waters of non-EU nations. The signing of UNCLOS recognized the rights of coastal nations to control fisheries harvests in their EEZs and put the EU's external fleet under scrutiny. Fishing grounds which had previously been subject to open access were now closed to international fishing activities, unless an agreement between the nation requesting access (the EU Member States or another, non-EU nation) and the coastal nation was signed. The impacts of the EU's external fleet continued to grow due to a highly connected global economy, technological innovations in satellite navigation systems, communication systems, more fuel-efficient engines, fish locating devices, atsea refrigeration and fish processing technologies, growing demand for cheap seafood through European and Asian seafood markets and subsidies that help fund vessels to fish further offshore. This wide reach of EU fisheries interests has resulted in the inclusion of an external dimension in the CFP, most recently revised in 2015 (Popescu et al., 2016), that frames the rules for EU fishing operations outside of the EU's EEZ. Between 2006 and 2020, approximately 23,000 fishing vessels operated under EU flags in non-EU waters using a Fishing Authorisation Regulation (FAR) (Who Fishes Far, 2019).

The external dimension of the CFP includes a non-discrimination clause which notes that EU fishing activities outside of EU waters should be based on the same principles and standards as those applicable under EU law within EU waters. With regard to fisheries negotiations with developing countries, it is also important to note the EU's Policy Coherence for Development (PCD) in which the EU seeks to take account of development objectives in its policies that are likely to affect developing countries, in which many of the partner countries in the EU's fisheries agreements are classified as. The EU's general provisions on its external action state that EU policies must "foster the sustainable economic, social and environmental development of developing countries, with the primary aim of eradicating poverty" and "shall take account of the objectives of development cooperation" (European Commission, 2008). Partner states with developing economies are expected to uphold the standards set out in the CFP. Many countries, in West Africa for example, have limited capabilities for monitoring, control and surveillance of fishing activities in their waters (Doumbouya et al., 2017). The EU therefore uses its development policy (the European Development Funded PESCAO project), supported by the European Fisheries Control Agency (EFCA, 2019) to assist the development of regional fisheries policy, regional coordination against illegal, unreported and unregulated (IUU) fishing, and improving fish stock management along Africa's West Coast.

The framework for the EU's external fishing activities is structured around an overarching regulation and two main types of agreement: the Sustainable Management of External Fishing Fleets (SMEFF) regulation (set up as part of the CFP external dimension) and access agreements. These include *bilateral* agreements, with third countries for EU vessels fishing within those countries' EEZs, which now largely fall under Sustainable Fisheries Partnership Agreements (SFPAs), and *multilateral* agreements, for fishing on the high seas, which are based on EU membership in Regional Fisheries Management Organisations (RFMOs).

2.2 | The sustainable management of external fishing fleets

Monitoring the EU's external fleet has been notoriously problematic (Bretherton & Vogler, 2008), making it difficult to properly evaluate to what extent current fishing practices that occur outside of EU waters impact on marine biodiversity or contribute to overfishing in ABNJ or within the EEZs of EU partner countries (Doumbouya et al., 2017). A significant step forward to tackle this issue was taken in 2017 when the system that issues and manages fishing authorizations was revised. The new Sustainable Management of External Fishing Fleets (SMEFF) regulation replaced the previous Fishing Authorisation Regulation (European Parliament, 2008) and provides a general framework for authorizing EU vessels to operate outside of EU waters as well as for third-country vessels operating in EU waters. The most significant innovations in the SMEFF regulation are the introduction of eligibility criteria for vessels seeking authorization, the official reporting requirement of private access agreements and the formation of a common electronic register for all authorizations in 2019. The Data Collection Regulation also requires EU vessels to provide data on their environmental impact outside of EU waters, but anecdotal indications suggest that this requirement is often not met. To date, the most comprehensive database on the EU's external fleet is the Who Fishes Far database (Who Fishes Far, 2019).

2.3 | Sustainable Fisheries Partnership Agreements (SFPAs)

The first formal bilateral European fisheries agreements were ratified in the late 1970s. These bilateral agreements were redesigned and renamed Fisheries Partnership Agreements (FPAs) as part of a reform of the CFP in 2002. The FPAs were designed to provide a mechanism that allowed the EU to pay a financial fee and provide technical support to partner countries, in exchange for fishing rights in that country's EEZ. The financial payment was made up of two parts: the first supported a portion of the cost of access to

the fisheries resources, while the second consisted of sectoral support to help improve fisheries governance in the coastal state. The reformed CFP of 2013 built on FPAs and introduced Sustainable Fisheries Partnership Agreements (SFPAs) which, along with providing financial contributions and technical support to partner countries, aim at contributing to scientific research, monitoring, and control and surveillance of the fishing activities undertaken in the EEZ of partner countries. An exclusivity clause in the CFP's external dimension states that, when an SFPA has been signed, no EU vessel can operate outside the framework of this agreement, even if the agreement is dormant. Article 31 of the CFP also states that SFPAs must be of benefit to both the EU and the third party concerned, including its local population and fishing industry.

The EU now regulates several SFPAs with countries in East and West Africa, the Caribbean, the Pacific and the North Atlantic (Figure 1), which provide payments to these countries in exchange for access to their fisheries resources. SFPAs are divided into two categories: mixed agreements and tuna (*Thunnus* spp.) agreements. The EU funds most of the costs of such SFPAs, aiming to create significant benefits for Member States' fishing industries (Karamichalis, 2020). In 2009, 14 non-EU countries were collectively paid nearly €150 million for signing SFPAs, making the EU's financial contributions substantial—and often the main source of revenue for national fisheries ministries. At present, there are 12 active SFPAs and approximately 8% of EU landings are made in countries' waters outside of the EU and 13% are taken from the high seas (Anonymous, 2016a).

Mixed agreements provide EU vessels with access to a surplus in the fish stock as identified by the partner country. Tuna

agreements allow EU vessels to pursue migrating tuna and tuna-like species as they move through the EEZ of an SFPA partner country. The tuna quotas are allocated to third-country coastal states through an RFMO, after which that coastal state then makes an agreement with the EU to allocate a reference tonnage, or a part thereof, to the EU. The exchange of fishing opportunities between EU fleets and non-EU countries has also resulted in many shared stocks being jointly managed under what are known as reciprocal agreements, used to regulate the management of joint stocks, provide access to multiple EEZs and exchange fisheries quotas for certain stocks.

SFPAs represent a significant steppingstone to improved international fisheries management and policy. They are designed to exploit partner country fisheries resources within sustainable limits by sharing surplus stocks as required under UNCLOS, consulting all major fishery stakeholder groups during negotiations and providing accountability while contributing to the social and economic development of the often less-developed partner countries. SFPAs are restricted to agreed target species and give priority to local artisanal fleets, banning discards and targeting surplus fish stocks only. SFPAs therefore have a significant bearing on regional and global food security, economic growth and environmental and social resilience of the partner countries. One recurring problem, however, is the definition of "surplus" stock by organizations or states, particularly considering that many do not have the appropriate stock assessment data to quantitatively estimate what is an ecologically sound amount of fish to extract from their waters (García-Isarch et al., 2016). In some cases, a surplus is assumed to be any fishery resources that the partner country is unable to

INTERNATIONAL COOPERATION AND DEVELOPMENT

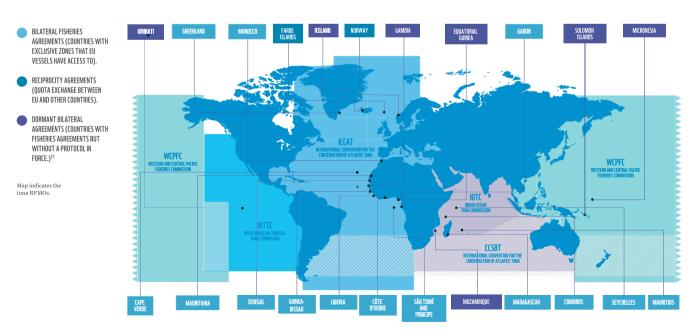


FIGURE 1 Map showing the countries that the EU has fisheries agreements with as of 2019. Figure appears in colour in the online version only

access, often due to local technical limitations such as small fishing vessels and inadequate fishing equipment.

The use of SFPAs indicates the EU's determination to lead in international fisheries governance, but the equity and enforcement surrounding the SFPAs have been questioned (Okafor-Yarwood & Belhabib, 2020). This is highlighted by numerous cases of illegal, unregulated and unreported (IUU) fishing by EU vessels, run by EU fishing businesses, as well as the numerous complaints from SFPA partner countries related to the decline in local stocks caused by the heavy offshore fishing of EU and other foreign vessels. Case studies from West and Central Africa demonstrate some of the problems associated with SFPAs as well as some of the negative impacts they have had on coastal communities (Corten, 2019: Okafor-Yarwood & Belhabib, 2020). In these regions, approximately 400 million people rely on marine fisheries for both food and livelihoods. To date, there have been 11 SFPAs in the region (some of which are currently dormant) (Anonymous, 2016a). The overall effectiveness of these partnerships has been scrutinized and is debatable in many cases (Standing, 2016). Much of the illegal fishing reported along Africa's West Coast is carried out by different parties including EU countries (many of whom break the rules of their SFPA), other distant water fleets re-flagging vessels and working under private agreements, and local fishers breaking national fishing regulations. In general, large declines in West African fish stocks are blamed on an increased presence of foreign vessels fishing offshore, local fisheries legislation not promoting sustainable practices—selling more fishing licences than stocks can support for example-and poor capacity-building efforts, which in combination amount to questionable benefits to local communities in SFPA partner countries (Okafor-Yarwood & Belhabib, 2020). The presence of foreign vessels is estimated to cost the West African economy approximately \$USD 2.3 billion per year (Doumbouya et al., 2017). For example, the amount of fish caught between 1994 and 2005 following the signing of several EU fisheries agreements with Senegal fell from 95 to 45 thousand tonnes due to overexploitation of the local stocks (Okafor-Yarwood & Belhabib, 2020; Philippe, 2019). This decline has had severe consequences for locally owned vessels, the number of which dropped by 48% between 1998 and 2008. The relevant SFPA was cancelled in 2006 after Senegal demanded additional compensation for the perceived overexploitation of demersal coastal fish stocks by EU trawlers. In late 2019, however, the EU and Senegal signed a new five-year protocol to the previous SFPA, which will give Senegal \$USD 1.9 million per year, of which \$USD 0.9 million per year is to be used to promote sustainable management of fisheries in Senegal through reinforced control and surveillance capacities and the fight against IUU (Ayet Puigarnau, 2019).

2.4 | Regional fisheries management organisations

It is estimated that ABNJ, which make up approximately 62% of the total ocean surface area, contain 10% of fished stocks (FAO, 2020b). At times, ABNJ contain many highly migratory species of high commercial

market value, such as tuna and swordfish species (*Xiphias* spp.), which transit between ABNJ and multiple EEZs during their lifetimes. Many biodiversity hot spots such as seamounts and submarine canyons also lie within ABNJ. Fishing activities in international waters are primarily regulated through Regional Fishery Management Organisations (RFMOs), comprised of member countries with an interest in sustainably managing fish stocks within a particular geographical area and with a mandate to adopt binding measures on their members (FAO, 2020a). RFMOs focus on establishing conservation and management measures (CMMs) of fishery resources in the managed area, achieved through negotiation and cooperation of member states that take the form of, voluntary international agreements or treaties on issues related to catch limits, technical aspects, data monitoring and compliance.

There are currently 17 RFMOs in existence that range in number of members, geographical area and species focus. Through the European Commission, the EU plays an active role in all RFMOs: six tuna and 11 non-tuna organizations (Anonymous, 2016c). This is indicative of the geographical extent of the EU's fishing fleets and highlights how the EU is, at least in terms of presence, a key player within international fisheries policy. Whether the EU can be considered a forerunner in implementing and following through on sustainability principles in practice remains contested (Belschner, 2015).

3 | RELATIONSHIPS BETWEEN THE EU'S EXTERNAL FISHING ACTIVITIES AND THE SDGS: SOME EXAMPLES

3.1 | The CFP, SFPAs and the SDGs

The UN SDGs, set out in *The 2030 Agenda for Sustainable Development* (UN 2015), were adopted by the UN member states in 2015. The SDGs have catalysed action, mobilizing the international community around the pursuit of global sustainability, defined through 17 goals and 169 targets (Ntona & Morgera, 2017). The SDGs represent a vision of what "global sustainability" could resemble. In doing so, they offer a useful framework for assessing sustainable development aspects of different policies, such as the CFP's external dimension.

The different SDGs contain many interlinkages and overlaps, as well as some contradictions, and numerous studies have examined these connections (Neumann et al., 2017; Nilsson et al., 2016). For SDG 14, targeting life in the ocean, such studies include an assessment of co-benefits and trade-offs by Singh et al. (2017), finding that 38% of positive relationships between SDG targets "require ocean sustainability to be achieved". Careful management and conservation of marine ecosystems is particularly important for SDG 1 (No poverty) and SDG 2 (Zero hunger). SDG targets 14.4 and 14.7, for the effective regulation and management of fisheries and increased benefits to developing countries, are cited as having the most connections to other SDGs (Singh et al. 2017). The development of sustainable fisheries management and benefit-sharing is also the targets most closely related to the CFP's external dimension.

In principle, the CFP's external dimension should align with all relevant SDG targets, including those with a wide social and economic scope, indicative of its ambition to contribute to sustainable development holistically. However, despite the CFP's wide-ranging aims for sustainable development (Table 1), the EU Commission's "EU policies and actions" website only cites a limited number of SDGs as supported by the CFP: including SDG 2 (Zero hunger) and SDG 12 (Responsible consumption and production), citing no specific targets outside SDG 14 (European Commission, 2017).

3.1.1 | End poverty and hunger, and provide decent work

The EU highlights how the SFPAs contribute towards job creation through facilitating sustainable and more productive fisheries, encouraging private-public investments and helping to reduce poverty in partner countries (Karamichalis, 2020). This creates a direct link to SDGs 1 and 8, on targets such as the following: 1.1, eradicate extreme poverty for all people everywhere; 1.4, "ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance"; and 8.3, "promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services".

The European Commission claims that the EU co-operates with developing countries to promote "sustainable management of seafood resources that enhances food security." This speaks to target 2.3, which seeks to "double the productivity and incomes of small-scale food producers, in particular women, indigenous peoples and fishers, including through secure and equal access to productive resources knowledge, financial services, markets and opportunities for value addition and non-farm employment" by 2030. The SFPAs should therefore clearly have a food security remit to facilitate meeting SDG target 2.3.

TABLE 1 The objectives of the CFP's external dimension —noted under "International Fisheries relations" (European Parliament, 2019) are to:

- Ensure appropriate European Union access to the world's main fishing zones and resources;
- Enhance bilateral and regional cooperation;
- Supply fish to European markets and provide employment;
- $\hbox{-} \ Contribute to the sustainable development of world fisheries;}$
- Tackle destructive fishing practices;
- Improve scientific research and data collection;
- Combat illegal, unregulated and unreported (IUU) fishing;
- Strengthen control and inspections under the RFMOs.

Only seven EU countries have ratified the International Labour Organization's Work in Fishing Convention (Convention C188, 2007). The convention requires EU vessels to employ local or ACP (African, Caribbean and Pacific states) fishing crew (also a requirement under the SFPAs) and stipulates minimum requirements for work on-board, conditions of service, health and safety on-board vessels, medical care-which also relates to SDG 3, to promote health and well-being for all-and social security benefits. Six EU member states have also ratified the Cape Town Agreement (International Maritime Organization, 2018), which calls for harmonized fisheries, labour and safety inspections, which are all significant issues in SFPAs and the fishing activities of EU vessels in non-EU waters. This is an important step, particularly for Spain and France considering they make up 49% and 40%, respectively, of all authorized EU external bilateral fishing agreements (CIRCABC, 2020) and are hence the biggest players in the EU external fleet. Increased integration between the SFPAs and policies for labour regulations could strengthen support from the CFP external dimension to SDGs 1 and 8 in particular.

3.1.2 | Achieve gender equality

Millions of women take part in the fishery value chains, but are marginalized due to the roles they fulfil in the supply chain and informal economy (Gorez, 2016; Mohammed et al., 2017). This makes gender issues an important aspect of the CFP's external dimension. This is recognized by the European Parliament in its resolution on common rules with regard to the application of the external dimension of the CFP (point 39) (European Parliament, 2016) in which it notes the importance "of involving women throughout the value chain, from financing through to the processing and/or marketing of fish products," and further that "promoting women's access to these activities would reinforce their economic and social empowerment, thereby playing an important role in closing gender gaps." This ties into target 5.1, to "end all forms of discrimination against all women and girls everywhere", and 5.a, to "undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws". Not only is gender equality important from an ethical perspective, but research also suggests that empowering women in local resource decision-making can lead to better governance and conservation of resources (Leisher et al., 2016). Spain has continually promoted the role of women in the fishing industry and in late 2018 demonstrated its political commitment at taking gender equality in the fisheries sector seriously when the Spanish Ministry of Agriculture, Fisheries and Food formed a congress to discuss the subject in detail and launched the Santiago de Compostela Declaration for Equal Opportunities in the Fishing Sector and Aquaculture. Although the congress itself is not directly related to Spain's involvement in SFPAs, the declaration could have important implications for women both in the fishing industry in Europe and those living and working in SFPA partner countries. This is particularly pertinent when considering the loss of livelihoods that can occur if fish are landed in different ports, following the signing of SFPAs that reduce fishing activity and fish processing in traditionally used ports.

3.1.3 | Promote peaceful institutions and partnerships

There are strong links which are not yet explicitly recognized by the EU between the issue of IUU fishing and SDG 16, for peace, justice and strong institutions, and especially target 16.3, to "promote the rule of law at the national and international levels and ensure equal access to justice for all". The EU's fight against IUU fishing is largely headed by Spain, for example through the punitive actions undertaken by the Spanish Ministry of Agriculture and Fisheries. Food and Environment (MAPAMA, now known as MAPA) in operation Sparrow I and II culminating in 2015 (IUU Watch, 2015). This resulted in the imposition of fines to vessel owners higher than any previously imposed at EU level (€17.4 million) (Colto, 2019). Spain has also issued licence withdrawals, poaching fines and refunds of European Maritime and Fisheries Fund (EMFF) money from boat owners, penalties that have not been issued by other EU member states. By awarding private fishing authorizations to eight Spanish vessels requesting access to The Gambia and one to Equatorial Guinea, however, Spain violated CFP laws between 2012 and 2015 because the SFPAs with these countries were dormant during that time. Such activity is not in line with promoting the rule of law or principles of the CFP. If SDG targets for transparency (16.6) and strengthened participation of developing countries in governance (16.8) are to be achieved, it needs to include termination of such activity, through improved monitoring and availability of information beyond the vessels and SFPA countries participating in such illegal activities to allow for proper scrutiny.

Following the withdrawal of Spanish purse seiners from Liberia after private fishing licences were forged by a Liberian fishing company in 2010, Spain established a system whereby licences issued to vessels under private agreements are subjected to control and validation through diplomatic channels (Vidal et al., 2016). In addition, licence payments are now made directly to the public treasury of the countries licensing the fishing activities. However, in 2012, forged private agreements provided by a Liberian government representative were signed by the French and Spanish tuna purse seine fleets working in the waters off Liberia. The legal action that was taken against these vessels did, however, demonstrate a pan-African solidarity to stop IUU fishing through the FISH-i Africa initiative (FISH-i Africa, 2016). Such multi-national movements to fight corruption are in line with SDG targets 16.5 and 16.6, aiming to substantially reduce corruption and bribery and develop effective, accountable and transparent institutions. Such efforts could be further strengthened through the CFP external dimension, to start by recognizing those targets as relevant aims for the CFP to consider and contribute to.

Several EU member states (Spain, France, Belgium, Denmark, Finland, Germany and Greece) serve on the partnership panel for the Financial Transparency Coalition, which works to curtail illicit financial flows (and therefore IUU) through the promotion of a transparent, accountable and sustainable financial system. This overlaps with many of the goals of SDG 8, but particularly with sustained per capita growth (SDG target 8.1), measures to eradicate forced labour and modern slavery (SDG target 8.7) and the promotion of safe and secure working environments for all workers (SDG target 8.8). The reduction in illicit financial flows (SDG 16.4) and improvements in regulation and monitoring (SDG target 10.5) in the fishing sector will, however, only be possible if transparency within the sector improves along with more thorough data collection, particularly for many of the SFPA partner countries.

The aims of the CFP are strongly linked to the "governance" components of the SDG framework, expressed in both SDGs 16 and 17, for partnerships to achieve the goals. The insertion of a human rights clause in the CFP agreements, as stated in the European Commission Communication on the External Dimension of the Common Fisheries Policy (E.U.R.O.P.A., 2011), aligns with target 16.10. This aims to ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements. The SFPAs' focus on transparency, capacity building and partnerships directly aligns with targets 16.6, to "develop effective, accountable and transparent institutions at all levels", 17.9, to enhance international support for implementing effective and targeted capacity building in developing countries to support national plans to implement all the SDGs, including through North-South, South-South and triangular cooperation", and 17.16, "to enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the SDGs in all countries, in particular developing countries".

Four consecutive rulings of the EU Court of Justice against the EU signing an SFPA with Morocco (that also grants fishery access to the non-autonomous territory of Western Sahara) were overturned by the EU Parliament in early 2019. The SFPA was primarily contested on the grounds that it violated human rights and promoted illegal fishing. People of the Western Sahara region had repeatedly opposed the deal, with 98 Saharawi organizations writing to members of the European Parliament (MEPs) asking them to reject it. The fact that the European Parliament decided against the expressed wish of the local communities appears to be in opposition to SDG targets 16.6 and 16.7 (WSRW, 2019), which aim to develop effective, accountable and transparent institutions and ensure responsive, inclusive, participatory and representative decision-making at all levels. The charge to push the SFPA signing was led by a French MEP who believed no deal would mean "a risk of interrupting fishing opportunities" (Voice, 2011). A Spanish MEP was against the SFPA signing but failed in their attempts to request a legal review of the SFPA to evaluate whether it was compatible with the EU's treaty obligations with respect to international law. The inability to initiate an

official legal review disrespects the Western Sahara's policy space and leadership targets, in line with SDG target 17.15.

3.2 | Regional Fisheries Management Organisations and the SDGs

RFMOs are closely linked to SDG 14 (Life below water), SDG 16 (Peace, justice and strong institutions) and SDG 17 (Partnerships to achieve the goals). In principle, CMMs developed by RFMOs seek to regulate harvesting, end overfishing and IUU fishing, and produce maximum sustainable yield (MSY) based on the best available science, as set out in SDG target 14.4. Trying to measure the extent to which the EU contributes to different SDGs through its involvement in RFMOs is difficult, as it is ultimately one member among many, with RFMO decisions made on a consensus or majority basis. However, it may be possible to understand the direction members within RFMO policy are headed by observing their proposals for adoption of new CMMs and amendments of existing ones.

Improving compliance, monitoring and transparency of international fisheries have become increasingly central in the work of RFMOs (Ardron et al., 2014), resonating with SDG target 16.6, to "develop effective, accountable and transparent institutions at all levels". Furthermore, in allocating membership to all those with a relevant stake in management of the fish stock (e.g. geographical, historical involvement), by default RFMOs broaden and strengthen the participation of developing countries in the institutions of global governance (SDG target 16.8). The partnership focus of SDG 17 is reflected in cooperative principles of the RFMOs. The type of cooperation between developed and developing countries found in RFMOs relates specifically to targets 17.7, the development, transfer, dissemination and diffusion of environmentally sound technologies, and 17.9, the enhancement of international support for capacity building in developing countries.

The influence of individual RFMO members can be qualitatively measured by the number of proposals adopted at RFMO annual sessions. Two illustrative examples of the ways in which the EU is engaging with the SDG agenda through its activity in RFMOs are the EU's involvement in the International Commission for the Conservation of Atlantic Tunas (ICCAT) and in the Southern Indian Ocean Fisheries Agreement (SIOFA). Established in 1966, ICCAT manages tuna fisheries in the Atlantic Ocean and adjacent seas. It consists of 53 Contracting Parties and is one of the oldest and largest RFMOs, both in terms of membership and geographical scope. The EU joined ICCAT in 1997 after regional economic integration organizations were permitted membership, and is now one of the organization's most powerful members in terms of catch and market size (Belschner, 2015). During the late 2000s, ICCAT's reputation was heavily tainted by its ineffectiveness to sustainably manage tuna stocks, most significantly the eastern Atlantic and Mediterranean bluefin tuna (Thunnus thynnus, Scombridae). ICCAT ignored scientific advice on catch limits in 2008 (setting a 22,000 tonnes quota limit compared to the recommended 8,500-15,000 tonnes), which

contributed to the near-collapse of the stock (Kolbert, 2010). Since then, after a rigorous recovery plan that saw the bluefin tuna make a drastic recovery (Heffernan, 2014), ICCAT's reputation as an organization capable of effective management has improved.

More recently, there are various examples of the EU pushing for more sustainable practices, primarily in the policy areas RFMOs traditionally address around overfishing, catch allowances and improved monitoring (all of which relate to SDG 14.4). For example, in November 2017 the EU was influential in proposing the adoption of Harvest Control Rules (HCR) in relation to Northern albacore tuna (Thunnus alalunga, Scombridae) stocks. Since then, there have been further discussions on adopting HCRs for Atlantic Bluefin tuna (ICCAT, 2019). HCRs represent a science-based approach purported to offer more benefits than traditional approaches involving the process of stock assessments and then a negotiation of limits or quotas. By having pre-agreed management rules in place that react to stock status indicators, efficiency and transparency are greatly enhanced (Kvamsdal et al., 2016). By explicitly tying policy to rule-based management, there is greater potential for decisions around issues like Total Allowable Catches (TACs) to be removed from short-term political pressures. While there are still some issues around the implementation of HCRs and turn theory into practice, the drive to implement such measures resonates strongly with the "science-based" principles promoted in SDG 14.4.

Among ICCAT members, the EU is, arguably, positioned towards the progressive end of the conservation agenda, although this is not always clear-cut, and opinions on what constitutes sustainability can often differ. One example of the EU pushing stronger conservation measures includes its proposal at the ICCAT meeting in November 2018 to improve bluefin tuna management. This proposal was described by the World Wide Fund for Nature (WWF) as "a stronger management plan, which would have included some new flexibility measures while ensuring species' recovery and increasing controls" (WWF, 2018). This proposal was ultimately weakened by the negotiation with other ICCAT contracting parties (Algeria, Tunisia, Morocco and Turkey) causing the final agreement to offer considerable flexibility without sufficient control (Commission, 2018). The debate surrounding the long-term management plan for tropical tuna at the same 2018 meeting highlights particular sustainability challenges and differences in opinion between ICCAT members. In general, members agree that bigeye (Thunnus obesus, Scombridae) and yellowfin (Thunnus albacares, Scombridae) tuna stocks are dangerously low and overfished and that action must be taken to prevent collapse and promote recovery. However, the best course of action for these stocks could not be agreed upon by members, despite three proposals seeking to develop a management plan put forward by the EU, South Africa and Guatemala. South Africa took the lead and tried to push through a unified proposal but the EU did not endorse this, describing that "it did not contain sufficiently ambitious measures for the allocation of fishing opportunities and failed to address basic requirements in terms of conservation and control measures, crucial to avoid an exponential increase in fishing mortality and inadequate controls" (Commission, 2018).

The International Pole and Line Foundation (IPNLF) offered a different perspective to that of the EU. They pointed towards South Africa as taking a leading role at the meeting, working towards a sustainable management plan for tropical tuna with the "[intention] to rebuild the stock in the shortest time frame possible, improve accountability and respect the rights of coastal developing states" (International Pole & Line Foundation, 2018b). As well as highlighting the differences in what constitutes the best approach to conservation, the disagreements around long-term management plans for tropical tuna also emphasize tensions between developed and developing states, as well as between industrial and artisanal fishing practices. As IPNLF put in stark terms, the failure of agreement on tropical tuna management meant "the contribution that small-scale artisanal tuna fisheries in many developing states make to local economies, food security and poverty alleviation lost out once again to the interests of large industrial fleets and their corporate backers who should accept some of the responsibility for the failed negotiations" (IPNLF, 2018b). ICCAT's failure to move towards SDGs 1, 2 and 8 (as referenced by the IPNLF) was not encouraged by the EU's position within the organization. Conversely, it is also possible to witness tensions where stakeholders in developed countries suggest that developing countries are the primary risk to "sustainability." For example, when adopting a new stock management plan for bluefin tuna in the Eastern Atlantic and the Mediterranean at the 2018 Meeting of the Commission, Europêche (Association of National Organisations of Fishing Enterprises in the European Union) expressed concerns "that the additional flexibilities granted to developing countries will be sufficiently controlled so as not to undermine the efforts and sacrifices made of the contracting parties to ICCAT over the last decade" (Europêche, 2018). This points to differences in opinion associated with a unified vision of environmental, economic and social sustainability across a diverse collection of stakeholders.

Today, ICCAT is one of the only RFMOs which places specific importance on protecting artisanal fishing practices, which until 2014 was a binding resolution, but has since become voluntary (International Pole & Line Foundation, 2018a). Reference to allocation criteria for small-scale and artisanal fishing is currently a voluntary resolution in ICCAT as of 2015. With SDG targets 14.7, 14.a, 14.b, 2.3 and 12.a all placing an emphasis on supporting developing countries and encouraging the benefits of small-scale approaches, it represents a missed opportunity by the EU to use its membership within ICCAT to promote wider sustainability issues.

In comparison with ICCAT, the Southern Indian Ocean Fisheries Agreement (SIOFA) covers a smaller geographical area (the Southern Indian Ocean), has only nine Contracting Parties (with one non-Contracting Party and four Signatories—Annex 4) and was formed relatively recently, in 2012 (SIOFA, 2017). Some of the EU's outermost regions, such as the Reunion Islands, are situated close to the area covered by SIOFA. SIOFA is mandated to manage non-highly migratory, straddling species, with key species including orange roughy (Hoplostethus atlanticus, Trachichthydae), dogfish (Squalus spp., Squalidae) and Patagonian toothfish (Dissostichus eleginoides, Nototheniidae). SIOFA's objectives include the long-term

conservation and sustainable use of fishery resources through cooperation of its members and to promote the sustainable development of fisheries, while considering the needs of developing states bordering its mandated area that are signed up to the agreement. SIOFA's overall objectives include a focus on increasing benefits to the least developed countries (LDCs) as well as small island developing states (SIDS) (Anonymous, 2018), reflecting SDG 14.7.

The EU takes an active role in the work of the SIOFA, as noted in the Meeting of the Parties in Mauritius (June 2017), where minutes record how "the EU was thanked for their considerable work in tabling and developing the proposed CMMs." Recent EU activity in SIOFA also points to various ways in which the EU is influencing a sustainable development agenda through the agreement. At the last Meeting of the Parties in Phuket, Thailand (June 2018), the EU was heavily involved with several new CMM proposals and amendments that suggested significant progress in sustainable management of fish stocks. including a proposal to designate five areas within the SIOFA management area as interim protected areas. This policy was based on advice of the SIOFA Scientific Committee that fishing with all gear types within the areas recommended for protection "may degrade the biodiversity and scientific value of these areas" and that a precautionary approach was advised (Anonymous, 2015). Critics highlight the EU's previous opposition to these protected areas and that the original proposal was for twelve areas, not five, indicating that the precautionary principle was not actually applied in this case (Deep Sea Conservation Coalition, 2019). Nevertheless, the outcomes of the meeting are aligned with SDG 14.4, including SDG 14.2 as a result of closing the areas to trawling to protect marine and coastal ecosystems.

The EU's 2019 adopted proposal for specific provisions for plastic disposal on-board fishing vessels represents another example of the EU's contributions towards sustainable development (Europarl, 2019). The proposal seeks to prohibit the "discharge into the sea of all plastics, including but not limited to synthetic ropes, synthetic fishing nets, plastic garbage bags and incinerator ashes from plastic products by vessels flying the flag of Contracting Parties, non-Contracting Parties (CNCPs) and Participating Fishing Entities (PFEs)...All plastics on-board shall be stored on-board the vessel until they can be discharged at adequate port reception facilities." (SIOFA, 2018b). These provisions should be a step towards SDG14.1, to prevent and significantly reduce marine pollution of all kinds and SDG 12.5, to substantially reduce waste generation through prevention, reduction, recycling and reuse.

There is little mention in the reports and documentation around SIOFA Meeting of the Parties of socio-economic aspects of sustainable fisheries management (relating to SDGs 1 and 8). Discussion of social, economic and cultural aspects features in the 2018 Meeting of the Parties report in relation to the proposed protected areas and the principles to be considered in their formulation. These principles describe the importance of considering "any social and cultural aspects or values" (SIOFA, 2018a) when designating a protected area. While this indicates consideration of multiple aspects of sustainability, it is limited in scope, a common shortcoming in many RFMO documents.

While challenging to quantify or specify in detail, there are important connections between RFMO actions and social conditions. For example, IUU fishing is sometimes associated with abusive employment conditions, child labour and slavery. Measures that seek to tackle IUU fishing, such as the EU's amendment to the resolution on port state measures to prevent, deter and eliminate IUU fishing (IOTC, 2016, p. 16) can be seen to support, to some degree, SDGs like 8.7, to eradicate forced labour, and modern slavery, and secure the prohibition and elimination of the worst forms of child labour. Identifying and describing direct links between an RFMO and the socio-economic aspects of the SDGs requires substantial investigation, as well as appropriate socio-economic data.

A preliminary study by ICCAT in 2018 explored ways to measure socio-economic impacts linked to ICCAT tuna fisheries management (Tsuji & Sabarros, 2018). It noted the conceptual and pragmatic problems of measuring impacts, including defining the "well-being of fisheries communities," how to attribute improvements in well-being to ICCAT management policies and the lack of relevant data from fishing communities. Like ICCAT, the IOTC has also been keen to address its lack of socio-economic focus, noting in 2017 that there is a "dearth of information available on the social and economic aspects of tuna fisheries in general" (IOTC, 2017). Since then, the IOTC has adopted a resolution to commission a scoping study of the socio-economic aspects of fisheries management that covers areas such as "economic dependence on fishery resources; income from exports; employment conditions and interactions between fleet segments; impact of fishery resource rents, including fisheries agreements with third parties to the local economies in terms of income, investments and jobs" (IOTC, 2018b). This important step in capturing data relevant to measuring and better understanding sustainable development has impacts beyond the scope of SDG 14 and could have arguably had more support from the EU, which was not among the fourteen parties who submitted the initial proposal for the resolution (IOTC, 2018a). Considering that the external dimension of the CFP states that the EU should support "a wider scope of scientific advice, notably through an implementation of the precautionary and ecosystem approaches and complementing them with the tools of socio-economic analysis," this is especially contradictory. Supporting the development of socio-economic indicators and better data is certainly one area where the EU could improve its contribution to the SDGs through the CFP external dimension.

3.3 | Data collection

The EU, vessel operators and partner countries have often fallen short on their reporting obligations across a wide remit of data types, including logbook catch and by-catch data, vessel registration information (with many new vessel registrations having gone unreported), labour conditions such as crew and wage data, and official reporting on how EU funds were used for sectoral support in partner

countries (European Commission, 2018). With respect to SFPAs, there appears to be an urgent need for effective data collection and transparency both for EU vessels and for partner countries.

More clearly defined stock information for exploited species is needed to provide accurate estimates of stock "surplus" and to allow for fishing at MSY to be properly evaluated. A standardized system of data collection and presentation for all SFPAs and joint ventures would help to make agreements transparent; this includes knowing who is responsible (vessels, fisheries agencies, managers, policymakers) for monitoring and delivering all aspects of these agreements. Much of the data provided to the EU from Member States, vessel operators and partner countries are not verified or cross-checked by a third party, and currently, the accuracy and robustness of data related to the CFP's external dimension (particularly that of SFPAs) is questionable.

Overall, more real-time (or close to real-time) data are required to help increase accountability and transparency on the fishing activities and environmental impacts of the EU's external fleet. Technologies such as remote electronic monitoring (REM), which includes both video recording and vessel monitoring systems (VMS) to record catches, by-catch and fishing locations, can aid such data collection (Bartholomew et al., 2018; Witt & Godley, 2007) and help increase compliance with management measures to reduce IUU fishing and associated human rights offences. The Spanish tuna purse seiners operating in the Atlantic and Indian Ocean are a good example of REM adoption, now with 100% coverage (Helmond et al., 2020). Such data collection efforts and technologies are, however, costly which may well require more funding than has been provided in SFPA agreements.

To date, data that have been successfully collected by the EU's external fleet have often been poorly transmitted and have generally not been made publicly available. The lack of transparency and consultation of civil society, both at the negotiation and implementation level of SFPAs for example, hampers the ability for both parties to base their decisions on available science. It also perpetuates the exclusion of a wide range of fisheries stakeholders from management evaluations and negotiations, which weakens the legitimacy of SFPAs and amplifies tensions between EU vessels and non-EU state partners, many of whom have argued that traditional access rights to their fisheries are being violated by EU fishing activities (Lorenz & Koigi, 2016). Collaboration between both national and international fisheries managers has also been made more difficult due to the lack of public information which, in the long term, often leads to less efficient use of management resources as common goals are more difficult to identify.

The European Commission and EU Member States could improve monitoring and data collection to demonstrate compliance with and links between the SFPA and RFMO policies and their impacts on economic, environmental and social impacts on local communities. The need for reliable and transparent data for monitoring is recognized across the Agenda 2030 framework in several publications accompanying the SDGs (e.g. Big Data for Sustainable Development, 2017; Leave No One behind: The Challenges of Collecting Disaggregated Data for SDGs, 2018). Developing and improving data collection to

strengthen implementation of the CFP external dimension could be undertaken in alignment or even cooperation with efforts directly targeting the SDGs.

4 | CONCLUSIONS

The external dimension is only a small part of the CFP's drive towards sustainability, equity and global leadership in fisheries governance. It is, however, an important part in terms of the impact it has on people and marine ecosystems around the world. Progress towards sustainable, accountable, transparent and fair external fishing practices remains slow. The European Parliament recently added subsidies to the new €6 billion European Maritime Fisheries Fund despite the Commission highlighting that this was against their international stance at the WTO. This seems counter to SDG 14.6 (WWF, 2019) in particular and provides an example of EU policy that indicates a strong industry influence in policy negotiations and represents a significant step backwards in terms of a transition to sustainable use of ocean resources.

Through its work on Policy Coherence for Development (PCD), the EU could prioritize reporting that details how the CFP's external dimension specifically supports the sustainable economic, social and environmental development of partner countries, with a focus on eradicating poverty through the development of tangible success criteria that align with a triple bottom line, giving equal weight to economic, social and environmental outcomes of the CFP's external dimension and related activities as well as gender equality, inclusion and human rights. The EU could also make greater efforts to collaborate with major intergovernmental organizations such as the World Trade Organization for trade data collection and trade sanctions, and with the World Health Organization to collect data on the livelihoods of fisheries workers and their relation to health and nutrition in partner countries that are part of SFPAs or private agreements with EU vessels.

We intend the information and examples provided throughout this review to implicitly suggest areas for further investigation. To conclude, we emphasize a few explicit questions that we consider especially central to further research in order to evaluate how the external dimension of the CFP contributes to or works against achieving the SDGs.

Our first question is the most basic: is the EU's policy framework for external fishing aligned with the SDGs? The CFP's external dimension and Agenda 2030 developed from vastly different starting points: the CFP with the intention to defend EU members' access to fish stocks, Agenda 2030 from a desire to address global inequity and environmental protection. This raises the question of whether the two policy frameworks can, in principle, be aligned.

Our second question relates to SGD 1, to end poverty in all its forms everywhere. What is needed to make the CFP contribute to eradicating poverty in countries with which the EU has fisheries agreements? The EU highlights how the SFPAs contribute towards

job creation through facilitating sustainable and more productive fisheries, encouraging private-public investments and helping to reduce poverty in partner countries (Karamichalis, 2020). This creates a direct link from the SFPAs to targets within SDGs 1 and 8 such as for eradicating poverty, ensuring equal rights to economic resources and promoting development-oriented policies.

Our third question addresses the idea of fairness between EU member states and SFPA partner countries. Do compensations from the EU allow the country that owns the exploited resource to truly benefit? Capacity built in-country needs to truly benefit the partner country. They must be able rely on their own resources to feed their local populations over the long term. Considering that many already overexploited stocks in developing country's waters are targeted by external fleets, those who already suffer from food insecurity may be worse off from such agreements as they see their local food sources transported to developed countries who do not suffer from the same food security issues. This is something that seems inherently unsustainable (Okafor-Yarwood & Belhabib, 2020). A strong link between the food security remit of SFPAs and the SDGs (particularly target 2.3) must therefore be made.

Our final question regards the role of EU subsidies and funding: how can funds from the European Union be aligned with the EU objectives of creating sustainable livelihoods for fishers by contributing to ending overfishing; as laid out in the renewed CFP and in line with target 14.6 of the SDGs?

These questions are not intended as a definitive or prescriptive list but rather highlight areas where in-depth analysis will yield important insights. Research into the processes that are implicated in the relationship between the EU's external fisheries and partner countries could provide improved understanding of how the CFP and RFMOs contribute to establishing institutions and partnerships for peaceful and inclusive societies, thus speaking to SDGs 16 and 17. While the questions may seem obvious, at this time they are not the target of a recognizable or significant multidisciplinary research effort. Providing answers requires cross-disciplinary research teams' spanning fields such as history, fisheries science, economics, international law, justice and gender studies. Most of these questions would also be best applied to delimited case studies, such as individual agreements. Broad conclusions could then only be made after building a considerable body of knowledge from the bottom up based on enough detailed and contextualized individual studies.

Although the CFP lays out worthy objectives, we believe there is ample room for the EU to substantially improve the alignment and coherence between its policy framework for external fisheries management and the UN's Agenda 2030 for global sustainable development. More research into this area, from multiple disciplinary perspectives, can identify both inherent conflicts between these two policy frameworks, and, we hope, ways to resolve them. This manuscript has benefited from discussion with a number of experts in IUU, EU policy and international development.

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CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no datasets were generated or analysed during the current study.

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