FISHING MORATORIA AND SECURING TURFS¹: CREATING OPPORTUNITIES FOR FUTURE MARINE RESOURCE ABUNDANCE IN THE FACE OF SCARCITY IN WESTERN AFRICA

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I. Introduction

It is the drama of David and Goliath as well as David versus David on the water. West African fishing communities operating in small boats compete regularly with both multinational industrial trawlers and each other for an ever-dwindling fish supply. Marine resource scarcity is becoming the new reality. The presence of multilaterally negotiated legal rights to fish coupled with the absence of law enforcement across the Exclusive Economic Zone (EEZ) has created a dwindling fish supply across West Africa. In some of these countries, including Liberia, Senegal, Mauritania, Guinea, and Ghana, non-governmental organizations estimate that nearly one-third of the total catch being taken is illegal.² When you add in the assumption that fishing vessels with licenses may be overfishing without legal repercussions, there are tremendous pressures on an increasingly fragile resource for which there is no immediate substitute.

The problem of illegal fishing is not unique to West Africa, but because the issues of food security and ecological vulnerability are particularly pronounced in this part of the world, Illegal, Unreported, and Unregulated (IUU) fishing requires a rapid, multi-scale national, regional, and international response to avert potentially devastating stock collapses. Worldwide fisheries are in crisis, with insufficient international interventions to restore commercial fisheries.³ While there has been some international attention given to restoring global high seas fisheries and improving regional fisheries management, there is an even more pressing need for rapid local interventions to protect subsistence fishers, primarily in developing countries, from the consequences of multinational industrial fishing that competes directly or indirectly with the subsistence fishing communities in EEZs.⁴ Mirroring the land-grabbing by large agribusiness in Africa, a number of non-African vessels—including European and Chinese fishing fleets—are presently engaged in ocean-grabbing, reaping large benefits from

² John Vidal, West African Fishing Communities Drive Off 'Pirate' Fishing Trawlers, GUARDIAN (Oct. 11, 2012), http://www.guardian.co.uk/environment/2012/oct/11/west-africa-fishing-pirate-trawlers.

³ Sharon LaFraniere, Europe Takes Africa's Fish, and Boatloads of Migrants Follow, N.Y. TIMES, Jan. 14, 2008, at A1 (describing the African fisheries crisis and noting that "[o]verfishing is hardly limited to African waters").

⁴ MARIANO IOSSA ET AL., SELFISH EUROPE: HOW THE ECONOMIC PARTNERSHIP AGREEMENTS WOULD FURTHER CONTRIBUTE TO THE DECLINE OF FISH STOCKS AND EXACERBATE THE FOOD CRISIS IN SENEGAL 14 (2008), available at http://www.actionaid.org/sites/files/actionaid/selfish_europe.pdf (noting that the European Union can only supply 50% of its current internal demand for fish from its own waters).

resources that are in the waters of other States without the host coastal State's citizens receiving any direct benefits.⁵

Illegal fishing in the West African region is a matter of fundamental human rights. Across the globe, oceanic artisanal fishing plays an essential role in promoting food security, with artisanal fishers catching about 30 million tons of fish.⁶ The fish caught by these artisanal fishers are the primary source of protein in many communities, particularly those in developing countries. Unfortunately, the artisanal fishing communities in some places are in direct competition with industrial fishing operations. Those operators collectively catch approximately 30 million tons of fish for food and 35 million tons of marine biomass for fish oil and fish meal, while discarding 15 million tons of by-catch.⁷ This clash between artisanal fishing and industrial operations is particularly evident in West Africa.

But all is not well with the health of West African coastal fisheries either. This is not merely a tale of exploitation by foreign fleets. Overfishing practices by industrial fleets have exacerbated overfishing by coastal fishermen, leading to dwindling catches. The story of the Senegalese fisherman Niadye Diouf is representative of this disheartening trend. He said that in 2008 it would take five times as many local boats to catch what was one available in a single local boat.8 Local fishermen are unable to sustainably manage formerly productive fisheries because of the current conditions of the coastal fishery stocks in West African waters. In response to this looming crisis of scarce resources, one civil society group working in the area has called for "a permanent suspension of the [foreign] fisheries agreements, the imposition of biological rest periods and reinforced surveillance of territorial waters."9

This Article will focus on the recurring food security challenges facing West African States whose waters are being regularly exploited by distant water fishing vessels in ongoing, legalized ocean-grabs. Part II examines the conditions of West African fisheries that have led to a state of scarcity,

7 Id.
 8 LaFraniere, supra note 3.

⁵ Anastasia Telesetsky, Resource Conflicts over Arable Land in Food Insecure States: Creating an United Nations Ombudsman Institution to Review Foreign Agricultural Land Leases, 3 GOETTINGEN J. INT'L L. 283, 315 (Ger.) (concluding that foreign leases of "agricultural land in food insecure countries is an emerging case of elite resource capture that threatens human security").

Christopher Pala, Billions in Subsidies Prop Up Unsustainable Overfishing, INTER PRESS SERVICE (Nov. 8, 2012), http://www.ipsnews.net/2012/11/billions-in-subsidies-prop-up-unsus tainable-overfishing/.

⁹ IOSSA ET AL., *supra* note 4, at 15.

including the active and legalized presence of foreign fishing fleets and the under-enforcement of domestic laws designed to manage both foreign and artisanal fishers. This section addresses two encouraging regional legal developments that could alleviate pressures on fishery resources. Part III explores the tension between States' obligations under the United Nations Convention on the Law of the Sea, which requires them to allow other States to exploit marine resource surpluses, and the competing obligation to satisfy their populations' human right-to-food. Part IV suggests that governments must re-engage fishery problems at different scales. It proposes several government policy options that prioritize restoration of fishery resources for artisanal fishing communities, including new financing for enforcement and the creation of new frameworks of user rights for coastal fisheries.

II. WEST AFRICAN FISHERIES AND THE CREATION OF CONDITIONS OF MARINE RESOURCE SCARCITY

West African fisheries are among the most threatened fisheries in the world because they have become both the overused "safety net" for local food security and a target of the global pursuit for economically valuable commodities. ¹⁰ In coastal Africa, fish represent one of the most important sources of dietary protein. In fact, in some African countries such as the Congo, C te d'Ivoire, Gabon, and Ghana, the population obtains almost half of its animal protein from fish. ¹¹ But it is not fishers from West African coastal States alone who are capturing fish within West African waters. In the past couple of decades, distant water fishing fleets have created conditions of physical scarcity for local coastal fishing communities.

A. Distant Water Fishing Vessels and Marine Resource Exploitation

Having overfished European waters to the point where stocks are no longer healthy, the European Union through the European Commission has been negotiating special access agreements with a number of Western African States for European flagged vessels to supply fish valued at \$1.75

¹⁰ Special Rapporteur on the Right to Food, *Interim Rep. of the Special Rapporteur on the Right to Food*, U.N. Doc. A/67/268 (Aug. 8, 2012) (by Oliver De Schutter) ("[Fishing] plays an important safety net function, however. In times of crisis, often caused by failing agriculture, conflict or recession, fishing provides important part-time or temporary income or relatively free food.").

¹¹ Achieving Poverty Reduction Through Responsible Fisheries: Lessons from West and Central Africa, FAO FISHERIES AND AQUACULTURE TECHNICAL PAPER 513, at 48 (1980).

billion to the European market.¹² The earliest versions of these partnerships provided fish to European actors at greatly reduced prices with only minimal benefit flowing to the West African States and almost no benefit trickling down to the artisanal fishing communities. The access rights that Europe purchased were an example of a "bad subsidy" that allowed for excess fishing capacity to be transferred from the North to developing countries' waters. The European Union continues to provide payments of approximately 400 million dollars to African States to benefit fleets primarily from Spain, France, and Portugal.¹³ Countries such as Mauritania, which depend on these payments from the European Commission, continue to grant fishing rights to foreign vessels in spite of reduced fish stocks.¹⁴

Particularly problematic is the parallel nature of a number of these agreements. For example, the European Union in the early 1980s entered into agreements with Senegal, Guinea, and Guinea-Bissau. Located in close proximity to each other, these countries share a number of fish stocks, but each independently sets its own total allowable number of catches for its EEZ. In competition with one another for economic advantage, each State independently offered generous allocations of the shared stock such that their cumulative allocations exceeded an ecologically appropriate catch limit.

Other countries such as China also deploy distant water fishing vessels in West African waters under private joint venture agreements as part of a transnational economic network. These agreements are frequently signed by private fishing companies with national governments. China has

 $^{^{12}}$ Thomas Binet, Fishing for Coherence in West Africa: Policy Coherence in the Fisheries Sector in Seven West African Countries 13 (2008).

¹³ U. Rashid Sumaila et al., *A Bottom-Up Re-Estimation of Global Fisheries Subsidies*, 12 J. BIOECONOMICS 201, 211 (2010) ("Spain has been particularly successful with the EU assistance subsidies for joint ventures, with over 250 vessels in 22 countries and catching up to reaching 190,000 tonnes.").

¹⁴ LaFraniere, *supra* note 3.

¹⁵ Council Regulation 971/83, Agreement Between the European Economic Community and the Government of the Revolutionary People's Republic of Guinea on Fishing off the Guinean Coast, 1983 O.J. (L111) 2; Council Regulation 2213/80, Agreement Between the Government of the Republic of Guinea Bissau, 1980 O.J. (L226) 34; Council Regulation 2212/80, Agreement Between the Government of the Republic of Senegal and the European Economic Community on fishing off the coast of Senegal, 1980 O.J. (L226) 17.

¹⁶ Ahmed Khan, U. Rashid Sumaila, Reg Watson, Gordon Munro & Daniel Pauly, *The Nature and Magnitude of Global Non-Fuel Fisheries Subsidies, in* CATCHING MORE BAIT: A BOTTOM-UP RE-ESTIMATION OF GLOBAL FISHERIES SUBSIDIES 5, 23–24 (U. Rashid Sumaila & D. Pauly eds., 2006).

¹⁷ Antonius Gagern & Jeroen van den Bergh, A Critical Review of Fishing Agreements with Tropical Developing Countries, 38 MARINE POL'Y 375, 378 (2013) (explaining that

bilateral fisheries access agreements with a number of West African States including Guinea-Bissau (1984), Guinea (1985), Senegal (1985), and Sierra Leone (1985), providing Chinese vessels broad access to West African coastal waters. In 2011, in spite of declines in global fisheries, the Chinese Agriculture Ministry observed that the catch attributed to Chinese fishing fleets in West Africa rose 14% in volume and 41% in value. 19

The foreign access agreements have resulted in what might be characterized as a legalized form of ocean-grabbing. Industrial fishing vessels operating under various bilateral agreements and contracts with the coastal States in prime fisheries such as the Guinea Current have been encroaching on artisanal fishing grounds communities leading to ongoing conflicts.²⁰ As industrial trawling activity increases, the artisanal fish harvest is decreasing for coastal populations.²¹ While the European Union continues to negotiate agreements with West African States with the justification that the EU is contributing to positive conditions for human development by offering funds for fishing infrastructure, fishing rights for foreign vessels continue to be sold at less than the value of the resource, and little value-added fish processing is actually taking place in Western Africa.²²

In addition to the licensed foreign vessels fishing under foreign fishing access agreements or joint venture operations, rampant illegal activity also occurs within the West African coastal waters, spurred in part by the coastal States' lack of political will and enforcement capacity. Of the seventy foreign trawlers that were flying a Chinese flag within Sierra Leone's waters in 2005, a number of the Chinese vessels are suspected of IUU fishing.²³

agreements between private industry and West African governments are common for South Korean, Taiwanese, and Chinese fleets).

¹⁸ Tabitha Mallory, China's Distant Water Fishing Industry: Evolving Policies and Implications, 38 MARINE POL'Y 103 (2013)

¹⁹ Chuin-Wei Yap & Sameer Mohindru, China's Hunger for Fish Upsets Seas: Reach of Massive Fleet Cuts Into Stock, Tests Ties on Opposite Side of the World, WALL ST. J., Dec. 28, 2012 at A7

²⁰ Guinea Current Large Marine Ecosystem, Transboundary Diagnostic Analysis 39 (Feb. 2006).

²¹ K.A. Koranteng, Status of Demersal Fishery Resources on the Inner Continental Shelf off Ghana, in The Gulf of Guinea Large Marine Ecosystem: Environmental Forcing and Sustainable Development of Marine Resources 261, 273 (J.M. McGlade et al. eds., 2002).

²² Gagern & van den Bergh, *supra* note 17, at 378 ("Funds do not reach the intended purposes, fish stocks are decreasing and the lives of fish workers in contacting states are harder than ever." (quoting Swedish Society for Nature Conservation, To Draw the Line: EU Fisheries Agreements in West Africa 60 (2009))).

²³ Mallory, *supra* note 18, at 103 ("In 2005, there were approximately 70 foreign trawlers and sardine purse seiners in Sierra Leone's waters."); EQUAL JUSTICE FOUNDATION, PIRATE

B. Responsiveness of Domestic Law

Well-written laws alone have failed to create sufficient incentives to conserve marine resources. As this Article will describe, the law itself as written, while not optimal in all regards, has sufficient conservation and enforcement language to provide protection of marine resources. Article examines three fishery codes within West Africa to determine what enforcement options are available under the law and whether additional legal reforms may be needed to strengthen the deterrence component of the law, or whether resources and attention should be focused on enforcement of preexisting laws. The first and second codes, from Gambia and Liberia respectively, have been revised recently and incorporate best management practices into the revised texts. The third case, the code and regulations of Sierra Leone that date from the mid-1990s, reflects a transitional code that might be revised, particularly in relation to the relatively low penalties for violations. Ultimately, though, it is clear that good law does not translate into sufficient enforcement

1. Gambia

The fishing industry is clearly an important economic sector in Gambia: it is the third largest production sector in Gambia and it accounts for 12% of the country's GDP.²⁴ Concerned that the 1991 code was not addressing the relationship between national fisheries and poverty reduction, Gambia revised its fisheries laws in 1997 to better address resource demands by both local and foreign fishing vessels.²⁵ Fishery management decisions appear to be concentrated largely in the hands of one decision-maker, raising accountability concerns particularly in relation to allocations for foreign fleets.²⁶ The Secretary of State is empowered to decide the total allowable catch (TAC), or total allowable level of fishing effort, for each fish stock as well as the allocations associated with either the TAC or fishing effort level.²⁷ The same individual may also enter into bilateral or multilateral access agreements with other States or associations representing foreign

FISHING EXPOSED: THE FIGHT AGAINST ILLEGAL FISHING IN WEST AFRICA AND THE EU 7

<sup>(2012).

24</sup> Food and Agriculture Organization, Information on Fisheries Management in the Republic of Gambia (2001), http://www.fao.org/fi/oldsite/FCP/en/GMB/body.thm.

Fisheries Act (2007) 20 O.G. (Supp. C) (Gambia).

²⁶ *Id.* §§ 11–12.

fishing vessel owners to provide an allocation of fishing rights.²⁸ This same individual may also designate enforcement officers who are not Gambian but are authorized to enforce the Gambian Fisheries Act.²⁹ The revised act also provides the Secretary of State with the power to require vessel monitoring systems on boats operating in Gambian waters.³⁰ There are no apparent statutory checks or balances on the Secretary's powers under the Fisheries Act.31

In addition, the Secretary may designate a special management area to zone for "community based fisheries management" as well as to support "artisanal or subsistence fishing operations." In principle, this is a positive development focused on meeting the needs of coastal communities. What groups are addressed in this management measure has the potential to be The term "community based fisheries management" is unfortunately undefined in the act. 33 "[A]rtisanal fishing" is simply described as fishing, including commercial fishing, with "motorized or nonmotorized canoes," and the term "canoe" is undefined.34 "Local fishing vessel" is defined in the code to require a genuine link between Gambia, the owner of the vessel, and the profits of the fishing activity.³⁵ There is no indication in the law as to whether artisanal fishing includes only local fishermen using their canoes to fish for local markets or whether it also includes regional fishermen who are hired by foreign vessels to fish in the special areas and supply the fish to the foreign fleets.³⁶

The Gambian code requires licensing for both local and foreign fishing vessels.³⁷ A failure to comply with the code results in a fine between five and thirty-five million dalasis (\$152,000-\$760,000), a prison term between five and ten years, or some combination of the two.³⁸ In addition to these penalties, the court may order forfeiture of the vessel used to commit an offense and any fish caught illegally.³⁹ The Gambian Director of Fisheries can refuse entry to foreign vessels that are believed to be in violation of

²⁸ *Id.* § 38(1).

²⁹ Id. § 2 (referring to fisheries officers, police officers, Gambian Navy officers, and customs officers); id. § 70(1).

³⁰ *Id.* § 106(2)(q). ³¹ *See id.*

³² *Id.* § 14(1).

³³ *Id*.

³⁴ *Id.* § 2.

³⁵ *Id*.

³⁷ *Id.* §§ 35–37 (local licensing provisions); *id.* §§ 38–42 (foreign licensing provisions).

³⁸ *Id.* § 39(9)

³⁹ *Id.* § 84(1).

international conservation and management measures. 40 Under the Fisheries Act, the authorized fishery officers have the power to seize boats that are in Gambian waters in violation of international conservation and management measures.41 The director may require onboard fishing observers for certain fisheries that are subject to a foreign access agreement. 42 Fines and prison sentences are levied and assigned for the illegal use of industrial driftnets, leaving non-biodegradable items in fishery waters, fishing with explosives or poisons, dumping fish processing waste, and willfully damaging or destroying fishing vessels or gear.⁴³

2. Liberia

Liberia's population is also heavily dependent on fish, with artisanal fishers competing both directly and indirectly with a \$12 million illegal fishing industry that is spearheaded by distant water industrial fishing vessels.44 In 2010, the Liberian government promulgated a new set of regulations to protect its fishery resources.⁴⁵ Like in the Gambian code, the Liberian code defines "artisanal fishing," as "small scale commercial fishing" using motorized or non-motorized fishing vessels or canoes that are sixty feet or shorter. 46 It is unclear whether foreign industrial vessels can contract with artisanal fishers to support their export-oriented activities.⁴⁷ Artisanal fishers are expected to have licenses in order to fish within the inshore exclusion zone.⁴⁸

Unlike Gambia, Liberia does not require evidence of an access agreement in order to issue licenses for foreign fishing vessels. It does require the posting of a performance bond "as a financial guarantee for the fulfillment of all obligations arising out of the license . . . including potential costs relating to rescue, other cost recovery and fines, penalties or compensation for

⁴⁰ Id. § 41(2)(a).

⁴¹ *Id.* § 73(2).

⁴² *Id.* § 79(2).

⁴³ *Id.* §§ 62, 64–67.

⁴⁴ WORLD BANK, PREVENTION FIRST: THE WORLD BANK'S APPROACH TO ENVIRONMENTAL CRIME (Aug. 30, 2012), available at http://web.worldbank.org/WBSITE/EXTERNAL/TOPIC S/ENVIRONMENT/EXTBIODIVERSITY/0, contentMDK:23264957~pagePK:210058~piPK :210062~theSitePK:400953,00.html.

⁴⁵ Ministry of Agriculture, Regulations Relating to Fisheries, Fishing and RELATED ACTIVITIES FOR THE MARINE FISHERIES SECTOR IN THE REPUBLIC OF LIBERIA (2010), available at http://liberiafisheries.net/sites/default/files/pdf/fisheries_reg-final.pdf.

⁴⁶ Id. § 1. 47 See id.

⁴⁸ *Id.* §§ 6, 14(1)(c).

violations against these Regulations."49 Liberia has a number of reporting laws that apply to "any 'industrial fishing vessel[]' " which is defined broadly as "decked fishing vessel with an internal engine with a capacity greater than 100bhp that is greater than ninety feet in length."50 Liberian law is unclear as to whether the references to "industrial fishing vessels" are only to Liberian flagged vessels or whether it also refers to foreign flagged industrial vessels. Reading the code as a whole, it appears to suggest that the regulations impose only limited requirements on foreign flagged industrial vessels.51

Liberian fishing inspectors have the power to seize vessels that may have been engaged in illegal fishing as well as any illegally obtained cargo. 52 The inspectors are empowered to use warning shots or devices to impede the propulsion of the vessel.⁵³ Observers may be appointed to report on scientific monitory, and compliance of vessels with marine conservation laws.⁵⁴ The Coordinator has the discretion as to whether to require observers to be deployed onboard ships, as well as whether a fishing vessel operator must participate in a vessel monitoring system.⁵⁵ Penalties range from \$10,000 for a failure to declare quantity of fish onboard to \$1,000,000 for fishing without a license.⁵⁶ Criminal sanctions are also possible, but imprisonment is not a possibility for foreign crew in conformity with Article 73(3) of the Law of the Sea.⁵⁷

3. Sierra Leone

Sierra Leone's Fisheries Decree and Regulations date from 1994.⁵⁸ As with the Gambian and Liberian laws, Sierra Leone recognizes the delicate

⁴⁹ *Id.* § 17. ⁵⁰ *Id.* § 1.

⁵¹ Id. §§ 37–39 (requiring foreign vessels to provide information before arriving in port to be used to determine whether IUU fishing has occurred and submit to possible inspections).

⁵² *Id.* at 47(2). ⁵³ *Id.* § 47(3).

⁵⁴ *Id.* § 48(1).

⁵⁵ *Id.* §§ 49, 55.

⁵⁶ *Id.* § 58.

⁵⁷ Id. §§ 58(8), 59; United Nations Convention on the Law of the Sea art. 73(3), Dec. 10, 1982, 1833 U.N.T.S. 397 (providing that "[c]oastal state penalties for violations of fisheries laws and regulations in the exclusive economic zone may not include imprisonment, in the absence of agreements to the contrary by the States concerned, or any other form of corporal punishment").

⁵⁸ The Fisheries (Management and Development) Decree, 1994 (Supplement to the Sierra Leone Gazette, Vol. CXXV dated 8th December 1994) [hereinafter Sierra Leone Fisheries

position of artisanal fishing communities.⁵⁹ The artisanal fishing vessels are required to carry registration but not to have a license for fishing.⁶⁰ Local fishing vessels, defined as any vessel either fully or more than 50% owned or capitalized by Sierra Leoneans, are required to have licenses.⁶¹ All foreign fishing vessels must operate with a valid license based on an access agreement negotiated between Sierra Leone and foreign governments.⁶²

The Director of Fisheries has monitoring, control, surveillance, and enforcement capabilities, including the power to board and inspect vessels.⁶³ The fines and penalties collected for violations of the fishery laws help fund this work.⁶⁴ A captain's failure to provide information on export statistics can result in either a fine of ten million leones (approximately \$2,313) or an imprisonment term of two years.⁶⁵ Violations of fishery regulations result in \$5,000 fines for foreign vessels or foreign citizens and \$1,000 fines for local fishing vessels or Sierra Leone's citizens.⁶⁶

4. Reflections on the Effectiveness of the Domestic Fishery Codes as Law in Protecting Scarce Resources

Overall, the codes seem to moderately protect the marine resources within the EEZ by requiring state-issued licenses for foreign fishing vessels, imposing penalties for failures to comply with the codes, and creating a system for monitoring. Some additional refinements of these codes may be possible in terms of designating who is an artisanal fisher, rather than an industrial commercial fisher, in order to extend greater protection from the State to artisanal fishing communities. All of the codes might be revised to rescind artisanal fishing protection for fishermen engaged in fishing activities on behalf of foreign or national industrial fishing companies. Sierra Leone should consider adding provisions to require artisanal fishing vessels to carry some form of fishing licenses to ensure that artisanal fishing protects marine resources.

Decree]; The Fisheries (Management and Development) Decree 1994, The Fisheries Regulations 1995 [hereinafter Sierra Leone Fisheries Regulations].

⁵⁹ Sierra Leone Fisheries Regulations, Part II(3).

⁶⁰ *Id.* § (4)(1).

⁶¹ Sierra Leone Fisheries Decree, *supra* note 58, §§ 15–20, 105.

⁶² *Id.* § 22.

⁶³ *Id.* § 63.

⁶⁴ *Id.* § 61.

⁶⁵ Id. § 100(4)

⁶⁶ Sierra Leone Fisheries Regulation, supra note 58, § 42.

5. Enforcement: The Missing Ingredient?

The problem for West Africa is not the content of its written laws. Policymakers have recognized the crisis of the modern fisheries and have done something conceptually to address it by separating artisanal fishing concerns from the foreign fishing industry. Practically, the crisis for West African State fisheries is one of repetitive under-enforcement of existing laws. While punitive laws exist for all of the States reviewed, these codes remain under-enforced due to a lack of enforcement resource capacity, a lack of political will, or just plain corruption.⁶⁷ Based on a review of international newspapers in legal databases, few enforcement actions are being reported by any of the West African coastal States.⁶⁸ Flag States do not appear to be pursuing robust monitoring efforts of their vessels, resulting in coastal States being defrauded.⁶⁹ The Senegalese Minister of Fisheries and Maritime Affairs explained that even though he has information about vessels illegally fishing, his department lacks the resources to react. Only States such as South Africa and Namibia have the resources to maintain a consistent enforcement program.⁷¹ In spite of valiant efforts by some States to seek prosecutions of illegal fishing, the regional response to resource degradation has traditionally been poorly coordinated.⁷² This may be slowly changing, with some of the States appearing poised to reverse the current trends.

C. Promising Developments in West Africa to Address the Conditions of Marine Resource Scarcity

There is reason for hope. Many of the most affected States in West Africa are no longer in denial that there is a resource crisis. States, such as Senegal, that formerly gave distant water fishing vessels access to their

⁶⁷ LaFraniere, *supra* note 3 (describing a situation in Guinea Bissau where in 2005 there were no patrol boats, twelve fishing ministers in eight years, government observers were easily paid off, and where in 2008 the EU was given the right to fish for shrimp, tuna, and octopus in already depleted waters).

⁶⁸ The terms searched for were "West Africa" or individual West African state names and "fishery enforcement."

⁶⁹ RamsNeil Ramsden, *Starkist Parent Dongwon Accused of IUU Fishing, Fraud*, UNDERCURRENT NEWS (Mar. 12, 2013), *available at* http://www.undercurrentnews.com/2013/03/12/starkist-parent-dongwon-accused-of-iuu-fishing-fraud/#.UUYr93FbyJU.

⁷⁰ West Africa Aims to Stop Illegal Fishing, STATES NEWS SERVICE, Mar. 8, 2013.

Mary Kimani, Safeguarding Africa's Fishing Waters, Regional Action Needed to Stop Illegal Trawlers, AFRICA RENEWAL (July 2009), available at http://www.un.org/africarenewal/magazine/july-2009/safeguarding-africa%E2%80%99s-fishing-waters.

EQUAL JUSTICE FOUNDATION, *supra* note 23, at 19–24.

waters are now retracting licenses and raising the international alarm about the condition of their fisheries.⁷³ In 2012, Senegal rescinded twenty-nine fishing licenses for foreign trawlers and demanded that these vessels offload their catches before leaving Senegalese waters.⁷⁴ This response was the product of great frustration by the Senegalese ministries whose waters were essentially being colonized by foreign vessels. In 2006, even though Senegal had terminated its fishery access agreements with the EU, Senegal's waters continued to be fished by vessels from Russia, Lithuania, Morocco, Ukraine, and other flags of convenience States whose vessels continued their destructive fishing practices.⁷⁵

In order to provide a clear declaration of what the rights and obligations of States within West African waters are, the Sub-Regional Fisheries Commission composed of Cape Verde, the Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal, and Sierra Leone has requested an advisory opinion from the International Tribunal of the Law of the Sea. ITLOS has taken the request under advisement and entered the request as Case No. 21. The substitution of the Sea. The Substitution of the S

In spite of these hopeful developments, there remain inherent legal tensions within West African States between meeting basic needs of citizens through ensuring access to food resources and meeting basic needs of citizens through national development schemes, including the bilateral Fishery Partnership Agreements and the joint development projects supported by foreign investment. The following section looks specifically at the collision between the State's obligation to protect the human right to food

⁷⁵ *Id.*; *Flags of Convenience*, MERRIAM-WEBSTER.COM, http://www.merriam-webster.com/dictionary/flag_of_convenience (last visited Oct. 8, 2013) (defining flag of convenience as "registry of a merchant ship under a foreign flag in order to profit from less restrictive regulations").

⁷³ John Vidal, *Senegal Revokes Licences of Foreign Fishing Trawlers*, GUARDIAN (May 4, 2012), http://www.guardian.co.uk/environment/2012/may/04/senegal-revokes-licences-foreign-fishing-vessels.

⁷⁴ *Id*.

The Press Release, International Tribunal for the Law of the Sea, The International Tribunal for the Law of the Sea Receives a Request for an Advisory Opinion from the Sub-Regional Fisheries Commission (Mar. 28, 2013) (noting that the request has been made pursuant to the 2012 Convention on the Determination of the Minimal Conditions for Access and Exploitation of Marine Resources within the Maritime Areas under Jurisdiction of the Member States of the Sub-Regional Fisheries Commission, which is an initial effort by the parties to harmonize fishing standards for a common fishing policy).

⁷⁷ Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission, Order 2013/2 of May 24, 2013, *available at* http://www.itlos.org/fileadmin/itlos/documents/cases/case_no.21/C21_ord_2013-2_24.05_E.pdf (noting that the case has been docketed as case number 21).

and the State's obligation to allow other States access to EEZ waters for optimal utilizations of marine resources.

III. THE RIGHT TO FOOD AND OBLIGATIONS UNDER THE LAW OF THE SEA: COMPETING STATE OBLIGATIONS

The right to food is a fundamental human right articulated in the International Covenant on Economic, Social and Cultural Rights. It provides that everyone has the right to "adequate food . . . and to the continuous improvement of living conditions."⁷⁸ As the UN understands the right, it is "inseparable from social justice, requiring the adoption of appropriate economic, environmental and social policies, at both the national and international levels, oriented to the eradication of poverty and the fulfillment of all human rights for all."⁷⁹ In 2012, the Special Rapporteur on the Right to Food explored the relationship between the right to food and fishing and concluded that current fishing practices may jeopardize a State's ability to ensure adequate food for its population.⁸⁰ He called for States to assess whether their policies are interfering with "existing access to adequate food" and to ensure that "enterprises or individuals do not deprive individuals of their access to adequate food."81 He specifically called for States to "search for arrangements that preserve the long-term (environmental) sustainability of fishing, including . . . reducing overfishing and conserving fish habitats, while concurrently improving the incomes of small-scale fishing

The West African fisheries present a curious case when examined simultaneously through the lens of the right to food and the Law of the Sea's Article 62. The West African coastal States that depend on fish resources have a clear legal right to fish in their waters in order to meet their citizens' rights to food. But there may be a legal question as to the temporal nature of the right to food. Do States have a right to withhold foreign access to food resources under their jurisdiction when they would otherwise have a quantitative surplus where the total allowable catch is set at the maximum sustainable yield based on assumptions about industrial fishing practices?

⁷⁸ International Covenant on Economic, Social and Cultural Rights art. 11(1), Dec. 16, 1966, 993 U.N.T.S. 3.

General Comment No. 12: Substantive Issues Arising in the Implementation of the International Covenant on Economic, Social and Cultural Rights, CESCR, 20th Sess., Apr. 26-May 14, 1999, ¶ 4, U.N. Doc. E/C.12/1999/5 (May 12, 1999).

⁸⁰ Special Rapporteur on the Right to Food, *supra* note 10. ⁸¹ *Id.* ¶¶ 39–40.

⁸² *Id.* ¶ 41.

On the one hand, it appears that developing states may have the ability to protect future generations since the Law of the Sea allows for States to control access depending on "the significance of the living resources of the area to the economy of the coastal State concerned and its other national interests." West African States can argue for an exclusive right to fisheries in their EEZ because of strong national interests in creating a foundation for current and future food security. For many of the coastal States with large and growing populations along the coast, maintaining a healthy population of fish and seafood for harvesting is a key aspect of avoiding shocks of famine and the unpredictable impacts of climate change. Adapting to climate change may require a shift from relying heavily on agricultural products for nutrition to relying more on fish products especially given predictions that climate change may reduce per-capita calorie availability in West Africa, where a large proportion of the population is already calorie deficient. 85

In contrast to Article 62(3), which accords coastal States some discretion on how they will provide access to living resources in their EEZ, Article 62(2) of the Law of the Sea suggests that coastal States lacking capacity "to harvest the entire allowable catch" have an affirmative obligation "through agreements or other arrangements" to "give other States access to the surplus of the allowable catch." This obligation is conditioned since coastal States who may not have the capacity to "harvest the entire allowable catch" in their EEZ should also take into consideration "the need to minimize economic dislocation in States whose nationals have habitually fished in the zone or which have made substantial efforts in research and identification of stocks." Applying this factor, a West African State might continue to allow distant water fishing vessels to fish within its waters because these vessels have been fishing in the West African waters since before many of these West African States ratified the Law of the Sea Convention. The research and identification of these waters ratified the Law of the Sea Convention.

⁸³ Law of the Sea, *supra* note 57, art. 62(3).

⁸⁴ U.N. G.A. Background Paper, *Climate Change and the Most Vulnerable Countries: The Imperative To Act* (July 8, 2008), http://www.un.org/ga/president/62/ThematicDebates/ccact/vulnbackgrounder1July.pdf (reporting that rain-fed agriculture may reduce yields by up to 50% in some African States by 2020).

⁸⁵ Undernourishment Around the World: Depth of Hunger: How Hungry are the Hungry?, FAO.ORG, http://www.fao.org/docrep/x8200e/x8200e03.htm (last visited Oct. 8, 2013).

⁸⁶ Law of the Sea, *supra* note 57, art. 62(2).

⁸⁷ *Id.* art. 62(3).

⁸⁸ See Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements as of September 20 2013, http://www.un.org/depts/los/reference_fi les/chronological_lists_of_ratifications.htm#The%20United%20Nations%20Convetnion%20on%20the%20Law%20of%20the%20Sea (listing ratification dates for Liberia (2008), Sierra Leone (1994), Mauritania (1996), Guinea-Bissau (1986), Guinea (1985), and Senegal (1984)).

of whether this is a reasonable reading depends on what the drafters of the Law of the Sea meant by "habitually fished"—some of the distant water fishing industrial trawlers have been operating for at least a decade in African waters.⁸⁹

It seems counterintuitive that in a time of scarcity, countries that have maintained their food resources through reduced fishing efforts and who now have a surplus in terms of total allowable catch may have an obligation to share this surplus with States that have historically overexploited their waters. Article 62(2), with its affirmative language requiring that coastal States without harvest capacity "shall . . . give other States access to the surplus" seems to suggest support for the continuation of the EU fishing program in Africa. 90 As tides turn and natural capital becomes valued not just for its consumptive use but also for its contribution to ecosystem services, countries hosting some of the world's last great fish stocks and still healthy biodiversity are understandably reluctant to continue opening their waters to foreign vessels even if they have permitted industrial fishing in the past.⁹¹ What arises is a collision between States' obligations to ensure the progressive realization of the right to food and States' obligations under the Law of the Sea to provide access to marine "surplus" below the quantified level of total allowable catches.⁹² The scarcity of marine fishery resources creates a race to fish by industrial fleets and artisanal fishermen, both of whom see their livelihoods disappearing.⁹³

IV. LONG-TERM POLICIES TO PROTECT AND PROMOTE THE RIGHT TO FOOD IN WEST AFRICA

In order to shape an appropriate policy response to the overexploitation of West African fisheries, greater focus needs to be placed on the institutions that are socially engaged in both promoting fishing and protecting fisheries and the conflict between the set of rules provided by such institutions. Nobel

⁸⁹ See generally Agreement Between the European Economic Community and the Islamic Republic of Mauritania on Fishing off the Coast of Mauritania: Protocol Setting Out Fishing Opportunities and Financial Compensation for the Period 1 July 1987 to 30 June 1990, Eur.-Mauritania, Oct. 24, 1987, Official Journal L. 302 24.10.1987, pp. 26–35.

⁹⁰ Law of the Sea, *supra* note 57, art. 62(2).

⁹¹ The Future of Fish: The Fisheries of the Future, 2 WORLD OCEAN REV. 116 (2013), available at http://worldoceanreview.com/wp-content/downloads/wor2/WOR2_english.pdf.

⁹² See Law of the Sea, supra note 57 (failing to define the term "surplus").

⁹³ SLIDESHOW: Illegal Fishing Hits Fish Stocks, Livelihoods in Sierra Leone, IRIN (Dec. 6, 2012), http://www.irinnews.org/Report/96980/slideshow-illegal-fishing-%20hits-fish-stock s-livelihoods-in-sierra-leone.

Prize winner Elinor Ostrom has proposed and theorized a conceptual framework called "institutional analysis and development" to explain how social institutions can change the incentives of how individuals and groups act. One area of particular interest for Professor Ostrom and her collaborators has been the identification of variables that impact institutions. One such "exogenous variable" with bearing on the case study of West African fisheries is the "concept of rules." Drawing on work by political scientist Max Black, Ostrom identifies four types of possible rules: binding regulations; instructions (e.g., formulas); moral precepts; and physical laws or principles. All of these types of rules contribute to creating "shared understandings" regarding what is "required, prohibited, or permitted."

What becomes apparent in reflecting on the current situation in the West African fisheries is that there is no uniform set of rules that applies to all of the fishery actors. Fisheries scientists weighing in on the physical laws suggest that the fisheries are overexploited. Meanwhile, West African nations are creating binding regulations with European partners that fail to address the fact that most of the West African countries lack the diplomatic leverage to persuade the States whose nationals or vessels are over-fishing to cease and desist from both environmentally and socially damaging fishery practices. The distant water fishing vessels comply with rules as practical economic instructions with the primary rule seeming to be: "A vessel may fish within a region until there are low yields in the net and then the vessel should move on to the next fishery." By contrast, the coastal artisanal fishers living in communities of fisherfolk have complex moral precepts and principles that guide their actions, including cultural mores and norms.

With conflicting sets of rules in practice for the major actors in the West African fisheries—the industrial trawlers, the coastal artisanal fishers, the distant water fishing nations, the flags of convenience nations that register some of the trawlers, and the coastal States—it is unsurprising that there are tensions among the actors. By acknowledging that players consider themselves to be playing by different sets of rules and not simply by the laws of the coastal States, the international Law of the Sea, or human rights laws like the right to food, it becomes possible to identify strategies that may encourage longer-term intervention at a scale most likely to result in appropriate responses to growing conditions of scarcity.

⁹⁴ ELINOR OSTROM, UNDERSTANDING INSTITUTIONAL DIVERSITY 6 (2005).

⁹⁵ *Id*. at 16–17.

⁹⁶ *Id.* (citing Max Black, *The Analysis of Rules*, *in* Models and Metaphors: Studies in Language and Logic (Max Black ed., 1962)).

⁰⁷ *Id*. at 18.

The West African fisheries problem is a multi-scale problem. It is largely an international problem caused by historically inadequate fishery conservation efforts in developed States in Europe, aggressive food security strategies in developing States in Asia, and revenue generation for countries choosing to flag any vessel that will pay the registration fees. It is also a regional problem, with a lack of coordination among West African States to eliminate destructive fishing practices. Finally, the fisheries problems are a local problem, with local fishing communities unsustainably competing for scarce resources. What is needed is a multi-scale approach to fisheries governance. Rather than the current efforts to pursue reforms that fail to address the complexities of managing national fisheries for both a global market and for local consumption, reforms need to be initiated across the supply and demand chain with a focus on the most vulnerable populations that cannot substitute other sources of protein. The World Bank has called for a policy response at multiple levels, observing at its conference "The Hidden Harvests" that "[c]ontrol of industrial fleets in coastal areas combined with responsible practices by small-scale fishing communities can recover these economic rents [global economic losses of \$50 billion annually] and maintain the integrity of fishery dependent communities."98

Given the gravity of the situation in West Africa, where the seas are being literally plundered, there have been multiple calls for action by civil society groups and most recently by the UN Special Rapporteur on the Right to Food. The remainder of this section provides three policy proposals for coastal States to immediately address the ongoing tensions that have emerged surrounding the ocean-grabbing practices of some foreign fleets and unsustainable coastal fishery practices. These proposals are offered as possible "rules" to "create shared understandings" regarding what is "required, prohibited, or permitted" in order to ensure a reasonably stable future for the West African EEZ fisheries. 100

 $^{^{98}}$ World Bank, Food and Agriculture Organization & WorldFish Center, The Hidden Harvests: Conference Edition 51 (June 2010).

⁹⁹ Special Rapporteur on the Right to Food, *supra* note 7.

OSTROM, *supra* note 94, at 18.

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V. POLICY PROPOSALS

A. West African States Should Temporarily Close Their EEZ to Foreign and Domestic Industrial Operations until Effective Compliance and Enforcement Eliminates Illegal Fishing Operations

Even though a moratorium on industrial fishing alone will not solve the problems caused by over-fishing, a moratorium is still essential for two reasons. First, it will permit threatened stocks to rebound by reducing fishing effort and allowing for West African States to meet their obligations under the Law of the Sea to "ensure through proper conservation and management measures that the maintenance of the living resources in the [EEZ] is not endangered by over-exploitation." Second, it will allow governments to assess what the overall status is of their marine resources, including both single stocks and shared stocks. Currently, there is a lack of scientific data about many of the species in the West African waters because the States do not have the internal resources to invest in marine scientific research

Some coastal regions of the world are in the process of imposing moratoria on industrial fishing. For example, the U.S. state of North Carolina has placed a ban within its three mile state jurisdiction on industrial purse seine fishing for menhaden. In 2013, the Maldives announced that all of its EEZ would by 2017 be designated as a biosphere marine reserve where unsustainable industrial fishing would be prohibited. In other regions of the world, including the Arctic, concerned scientists are calling for a moratorium on industrial fishing because of the environmental vulnerability of the region.

Ideally, any moratorium would be applied regionally because a number of the marine stocks are shared between West African States. There are a variety of existing regional frameworks that States might rely upon to provide needed governance to ensure the effectiveness of a moratorium.

¹⁰¹ Law of the Sea, *supra* note 57, art. 61(2).

¹⁰² Rob Morris, *North Carolina to Bank Industrial Menhaden Fishing*, OUTER BANKS VOICE (May 21, 2012), http://outerbanksvoice.com/2012/05/21/north-carolina-to-ban-industrial-men haden-fishing/.

¹⁰³ Press Release, Convention on Biological Diversity, Maldives Responds to Hyderabad Call for Biodiversity Champions (Feb. 18, 2013).

¹⁰⁴ Arctic Fishing Moratorium Needed, Scientists Say, CANADIAN PRESS (Apr. 22, 2012), http://www.cbc.ca/news/world/story/2012/04/22/arctic-fishing-moratorium-scientists.html.

Including the FAO Sub-Regional Fisheries Commission, ¹⁰⁵ the UNEP Regional Seas Programme for the West and Central African Region, ¹⁰⁶ and the Ministerial Conference on African States Bordering the Atlantic Ocean (COMHAFAT). ¹⁰⁷ If an industrial moratorium is politically possible, it will be important for States in the region to ensure that there are regionally harmonized domestic laws on both industrial fishing and illegal fishing in order to prevent the formation of havens for poor fishing practices.

A recurring issue is whether existing regional governance networks can be politically robust enough to change the status quo in terms of resource management when doing so may threaten foreign donor interests. For example, in the most recent meeting of COMHAFAT, Japanese observers played a prominent role in organizing the meeting and then seeking support from COMHAFAT to oppose efforts to list Atlantic tuna under the Convention in Trade on Endangered Species (CITES). This proposal was supported by Monaco and the U.S. for conservation purposes. COMHAFAT countries agreed to support Japan in its opposition to an Appendix I CITES listing that would prohibit commercial imports and exports of the fish. This decision to support Japan's position was surprising in light of the ongoing crisis in domestic fisheries in a number of

¹⁰⁵ See generally Sub-Regional Fisheries Commission, FOOD AND AGRICULTURE ORGANIZATION, http://www.fao.org/fishery/rfb/srfc/en.

The Abidjan Convention provides a framework for cooperation on West African marine issues, including the creation of specially protected areas under Convention Article 11. Convention for the Co-Operation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region (Abidjan Convention), Mar. 23, 1981, available at http://www.abidjanconvention.org/index.php?option=com_content&view=article&id=100&Itemid=200. A temporary industrial fishing moratorium might be possible through the creation of specially protected area where the parties agree to "prohibit or control any activity likely to have adverse effects on the species, ecosystems, or biological processes in such areas." *Id.*

¹⁰⁷ See generally MINISTERIAL CONFERENCE ON FISHERIES COOPERATION AMONG AFRICAN STATES BORDERING THE ATLANTIC OCEAN (COMHAFAT), http://www.atlafco.org/def.asp?co delangue=30&po=2 (working since 1989 to promote regional fisheries cooperation, which included negotiating a regional convention on Atlantic fisheries cooperation in 1991).

Eighth Session of the Ministerial Conference on African Fisheries Cooperation Among African States Bordering the Atlantic Ocean, ¶¶ 30–34 (Feb. 17–19, 2010), http://www.com.hafat.org/docs/1114201113835PM.doc (describing Japan's efforts to keep the "Atlantic red tuna" from being listed under Appendix I).

¹⁰⁹ Interpretation and Implementation of the Convention: Species Trade and Conservation—Atlantic Bluefin Tuna, CoP15 Doc. 52 (Rev. 1), http://www.cites.org/eng/cop/15/doc/E15-52. pdf (referring to Monaco's attempt to list the Bluefin Tuna, the formal name for what is colloquially called the Atlantic red tuna).

¹¹⁰ Éighth Session of the Ministerial Conference on Fisheries Cooperation Among African States Bordering the Atlantic Ocean, *supra* note 108, ¶ 33.

the West African States, which therefore might not reap much benefit from Japan's position.¹¹¹

Even though some of the West African States participating in COMHAFAT seemed to have been deferential in 2010 toward distant water fishing nations' interests, other regional institutions may be less willing to support regional policies that run counter to long-term interests. For example, the Sub-Regional Fisheries Commission (SRFC) in March 2013 requested from the International Tribunal on the Law of the Sea (ITLOS) an advisory opinion on the legality and liability associated with some of the current flag state IUU fishing practices common in the West African region. If ITLOS hears this case, the resulting opinion may provide the SRFC States with the legal authority they need to demand better monitoring and enforcement by flag States.

Before instituting any moratorium, it may be necessary to review investment agreements to avoid any potential claims of investment expropriation. If a West African State has agreed to certain terms within bilateral investment treaties or specific access agreements for foreign vessels, then foreign fishing fleets may have contractual or international investment expropriation claims that they can bring in the case of a closure of a fishery before the termination date of a fishing agreement. Where there is no access agreement between a West African State and a distant water fishing State, there would be no justified expectation on the part of individual fleet owners to continue fishing in the EEZ waters of the coastal State. 112 Since distant water fishing is quite profitable and the parties that benefit are often politically powerful, it may prove difficult to disentangle legitimate foreign investment in the marine sector from the larger concerns of illegal fishing that would be driving the moratorium effort. In addition, the diversity of access agreements and bilateral investment agreements across the region could prove to be a barrier to instituting effective regional responses to illegal fishing in the region. West African States could proceed unilaterally, however, to impose moratoria as long as State governments do not renew foreign fishing licenses or access agreements. All of these considerations

¹¹¹ Vlad M. Kaczynski & David L. Fluharty, *European Policies in West Africa: Who Benefits from Fisheries Agreements?*, 26 MARINE POL'Y 75, 89 (2002) (finding that in 1994 and 1997 Guinea-Bissau only earned .24% and .4% respectively of the estimated value of the tuna for the EU licenses for offshore tuna fisheries in Guinea-Bissau's EEZ).

law of the Sea, *supra* note 57, art. 56 (stating that within an Exclusive Economic Zone, the coastal State has "sovereign rights for the purpose of . . . conserving and managing the natural resources"); *id.* art. 62(2) (requiring distant water fishing nations to enter into "agreements or other arrangements" with coastal States).

make a moratorium a challenging policy proposal, but one that should alleviate some of the pressures on the fishing resources and provide what the NGO ActionAid refers to as "biological rest periods."¹¹³

Finally, if coastal States implement a moratorium, they must be in a position to fully police their waters for possible violations of their fisheries codes, such as over-exploitation of stocks. Without credible enforcement capacity on the part of regional enforcement officials, both domestic and foreign vessels will flout the moratorium. Given the paucity of enforcement capacity in the region, enhancing enforcement will require more than simply a reallocation of existing resources. It will require instead new investments in enforcement mechanisms that will probably require international financing and international capacity building for most of the countries in West Africa.

B. West African States Should Request Capital Investments from International Financial Institutions Specifically for Fishery Enforcement Operations

Presently, fishery enforcement efforts in West Africa lack basic operational resources, including vessels for enforcement actions. Institutions such as the World Bank are well-positioned to assist in coordination efforts to supply basic enforcement infrastructure to States. A recent coordination effort between the Isle of Man, the World Bank, and Sierra Leone has resulted in increased enforcement in Sierra Leonean waters. In September 2012, the Isle of Man through its Overseas Aid Committee donated a former customs boat to the government of Sierra Leone. Using World Bank funding, the boat was retrofitted to operate as a fishing enforcement vessel and staffed with two Isle of Man engineers to provide training on maintenance and operations. In December 2012, the patrol vessel made its first arrest.

¹¹³ IOSSA ET AL., supra note 4, at 15.

¹¹⁴ Isle of Man Boat Helps Fight Illegal Fishing in Sierra Leone, BBC NEWS (Apr. 8, 2013), http://www.bbc.co.uk/news/world-europe-isle-of-man-22066414 (noting that the collaboration between the Isle of Man and Sierra Leone had in less than a year resulted in eight arrests, \$400,000 in fines, and an 80% reduction in the worst offenses).

¹¹⁵ Patrol Vessel Isle of Man Makes First Arrest in Sierra Leone, ISLE OF MAN NEWS (Dec. 24, 2012), http://www.isleofman.com/news/details/51841/patrol-vessel-isle-of-man-makes-first-arre st-in-sierra-leone.

st-in-sierra-leone.

116 Patrol Boat Setting Sail for Africa, ISLE OF MAN TODAY (May 13, 2012), http://www.iomtoday.co.im/news/isle-of-man-news/patrol-boat-setting-sail-for-africa-1-4544375.

¹¹⁷ Patrol Vessel, supra note 115.

In 2011, the World Bank provided additional funding of \$2 million to Liberia and \$8 million to Sierra Leone through the West Africa Regional Fisheries Program to assist the countries with three objectives: improving local governance through a regional fisheries information network, tackling illegal fishing, and improving local value for fish products through infrastructure projects such as improved ports. 118 While the first and third objectives are valuable from a long-term economic development perspective, the priority should be for funding to ensure that State fishery departments have sufficiently fast and adequately maintained vessels available for their enforcement officers so that they can act on intelligence about possible illegal fishing rather than waiting for cooperation from the navy or other departments with boats. 119 While the World Bank has provided some funding to support improved enforcement, it has been cautious in doing so because of concerns that fishery surveillance activities may "overstep the Bank's mandate to finance only economic development activities." 120 At least as it relates to the current proposal for improving enforcement capabilities, this concern is misplaced. Any enforcement that will reduce the pressure of either industrial or local irresponsible practices on coastal fisheries will contribute to long-term local economic development.

Because operating patrol vessels is expensive, international investments could also be used to support at-sea enforcement programs using participatory surveillance by local fishing communities. One possible model may be the bounty approach for combating anti-poaching. A system of potential rewards could be structured for supplying information through a hotline or other means that lead to the arrest of domestic and foreign IUU fishers. In addition, there are also basic technologies emerging in the region that international financial institutions can support which might enhance national level enforcement efforts, including a Smartphone application called "Trawler Spotter" that is being piloted in Liberia. ¹²¹ "Trawler Spotter"

¹¹⁸ WORLD BANK, PROJECT PAPER ON A PROPOSED ADDITIONAL FINANCING FROM THE AFRICAN CATALYTIC GROWTH FUND 5–6 (2011), *available at* http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/06/10/000386194_20110610011242/Ren dered/PDF/618150PJPR0P120e0only0900BOX361483B.pdf.

¹¹⁹ See Julia Ruhfus & Orlando von Einsiedel, Pirate Fishing, AL JAZEERA (Feb. 2, 2012), http://www.aljazeera.com/programmes/peopleandpower/2012/01/201212554511540797.html (filming the challenges faced by Sierra Leone's Ministry of Fisheries and Marine Resources in overcoming local corruption among lower level naval officers who are expected to respond to IUU fishing threats).

WORLD BANK, supra note 118, at 19.

Fisher 2.0: Liberian Fishers Use a Mobile 'App' to Fight Illegal Trawling, COMMUNITY Sci. (Aug. 20, 2011), http://www.communitysciences.org/IntPages/News.php (Pilot program is supported by the World Bank).

provides an opportunity for citizens to notify national authorities where a vessel is suspected of illegally trawling. Drones may also become useful for combating illegal fishing. 123

C. West African States Should Request International Coast Guards and Naval Forces to Support Additional Enforcement Training as well as Possible EEZ Resource Monitoring Assistance

Better equipment is only part of the long-term remedy for reducing fishing effort. In addition to adequate equipment, there also need to be well-trained teams who are capable of responding to allegations of illegal fishing or irresponsible fishing, since enforcement work on the water is both potentially difficult and dangerous. The international community has responded to provide assistance here. In recent years, there has been an increase in capacity building exercises between West African States and other States. In 2013, American and European naval officers provided training in Cape Verde, Ivory Coast, Gambia, Liberia, Mauritania, Morocco, Senegal, and Sierra Leone on patrolling for illegal fishing activity. 124

Stronger navies and coast guards, particularly from States with current access agreements, might, with the support and cooperation of West African governments, contribute a regular presence in West African waters. In addition to providing training, these navies could supply joint patrols during particularly active parts of a fishing season or during those parts of a breeding season when there are threats to juvenile fish. There is precedent for such shared patrols between countries with strong navies and countries lacking basic enforcement infrastructure: in February 2012, the United States Coast Guard operating under a bilateral enforcement treaty conducted joint EEZ fishery enforcement with the Republic of the Marshall Islands. 125

Sean Dorney, *Palau Looks to Drones to Monitor Fishing Ban*, RADIO AUSTRALIA (Mar. 25, 2013), http://www.radioaustralia.net.au/international/2013-03-25/palau-looks-to-drones-to-monit or-fishing-ban/1106658.

¹²⁴ Jennifer Lazuta, *West Africa Aims to Stop Illegal Fishing*, Voice of America (Mar. 8, 2013), http://www.voanews.com/content/west-africa-fishing/1618242.html.

¹²² Id

Press Release, United States Coast Guard, Coast Guard to Conduct Joint Fisheries Enforcement Mission with Republic of the Marshall Islands (Feb. 27, 2012), http://www.uscgnews.com/go/doc/4007/1384271/Coast-Guard-to-conduct-joint-fisheries-enforcement-mission-with-Republic-of-the-Marshall-Islands.

D. West African States Should Assign Use Rights to Fishing Communities through Long-Term Concessions Based on Converting Restored Marine Protected Areas to Territorial User Rights Fisheries

Overfishing in West African waters is not exclusively the fault of foreign industrial fishing fleets. Poor management within the internal waters of West African nations compounds the problem as community fishing groups compete both with each other for already limited resources and with other national interests such as coastal developers. Importing private property mechanisms, such as the individual fishing quotas utilized in Norway, is unlikely to be adaptable to the coastal regions of West Africa. 126 Because many of these fisheries are subsistence-based fisheries, the sale of individual actionable or tradable permits would be unlikely to manage resources effectively unless such a program was accompanied by rigid and possibly inequitable enforcement against the poorest and most vulnerable members of the community. Giving such permits away might be detrimental to the sustainability of the underlying fish resources because the community members may not value what is given away freely. It may simply lead to an equally unenforceable system. West African and other nations with limited enforcement resources need other options to protect scarce resources.

Before States can issue equitable fishing allocations among coastal communities, West African fisheries and even some of the Asian subsistence fisheries need long-term restoration efforts to help fisheries and marine habitats recover from their current, overexploited conditions. In some regions of the world, there is an exodus from fishing as a livelihood because it is no longer considered a reliable source of food or income. This trend is particularly concerning in States where a majority of the population's animal protein is obtained through fish. Assuming for the remainder of this section that the problems with foreign industrial trawlers have been satisfactorily resolved through increased enforcement in the outer reaches of the exclusive economic zones and that foreign fleets are not using the services of local fishermen to extract fish from the local coastal waters for export, there are possibilities for re-creating sustainable coastal fisheries through a combination of central government action and local fishery management.

²⁷ LaFraniere, *supra* note 3.

¹²⁶ See generally Rögnvaldur Hannesson, *The Long and Winding Road: Norway's Approach to ITQ's*, Australian Agric. & Resource Econ. Soc'y 2007 Conference (51st), *available at* http://ageconsearch.umn.edu/bitstream/9464/1/cp07ha13.pdf.

This Article's proposal would start with an investment in an employment program for fishing communities targeted at restoring coastal habitats and stocks so that this generation and future generations would be able to eventually return to economically and ecologically viable fulltime fishing. Rather than maintaining the status quo for local fishing effort, which is reducing already limited stocks, the initial effort would begin with a commitment from the central government of a nation reliant on subsistence fishing to invest in stock recovery. Early efforts could be funded by international aid. 128 To achieve this goal would require some joint spatial planning work between government ministries, including the Fishery Ministry and the Environmental Ministry, and local communities to designate a series of Marine Protected Areas (MPAs). These regions would be classified as recovering, partially recovered, or fully recovered depending on the condition of the marine resources within the region. These MPAs would be the foundation upon which a system of Territorial Use Rights in Fisheries (TURFs) might be eventually constructed that could allocate fishing rights to either fishing cooperatives or individual fishermen. The larger the original MPAs are, the easier it may be to convert them into TURF areas used and protected by multiple artisanal fishing groups in future years.

The idea behind designating the MPAs would be to provide a physical location for restoration activities that would be funded by national governments or by international donors. Government agencies, in collaboration with local communities and scientists, would decide whether to actively or passively restore a given MPA and would set targets that would define what is a "healthy" fishery capable of extraction for both local consumption and possibly market export. After the MPAs have been delineated and during the period of ongoing restoration, subsistence fishermen would have the option of either applying for a territorial use right within a "fully recovered" region or participating in active restoration activities within a designated MPA. The two options are offered on the theory that it will not be possible for all fishers to participate in a "fully recovered" region and that certain fishers will need to "sit out" a number of seasons of fishing until coastal areas have sufficiently recovered, either through passive or active restoration efforts. The early stages of this project,

¹²⁸ See, e.g., Amadou Jallow, New Commission Set Up to Ensure Responsible Fishing, DAILY OBSERVER (Mar. 12, 2013), http://observer.gm/Africa/gambia/article/new-commission-set-up-to-ensure-responsible-fishing (noting the French support for the West African Association for the Development of Artisanal Fisheries (WADAF)). See generally WEST AFRICAN ASS'N FOR THE DEVELOPMENT OF ARTISANAL FISHERIES, http://www.adepa-wadaf.org/spip.php?article (describing the history and mission of WADAF).

which may require five to ten years of work depending on the deterioration of the marine resources, will require sufficient subsidization to ensure that fishers involved in restoration work will make comparable profits to those engaged in fishing for the effort that they invest. The amount of subsidization must not exceed what a given successful fishing individual would make, because the program must not discourage individuals from participating in the fishing activities needed to meet local nutritional needs.

For each fisher who chooses to participate in restoration work, they will be assigned territorial use rights when the MPA that they are working on restoring has fully recovered sufficient viable stocks to permit fishing. This incentive is offered to incentivize careful restoration work by the individuals and communities benefiting from the restoration. If restoration is successful within the various MPAs, then at some point in the future, each fisher will be entitled to a "territorial user right" within the former MPA that they helped to restore. The MPA would then be relabeled as a TURF.

Subsistence fishing States have experience with TURF areas. In West Africa, TURF areas have been relied upon as management tools associated with beach seine netting. In pursuit of the goal of assigning equitable, efficient, and sustainable marine property rights, the TURF areas designated by the State could loosely coincide with the boundaries of a restored coastal MPA. Within the TURF areas, members would have a number of property rights, including the right of exclusion, the right to limit or control access to the territory, and the present and future right to administer the TURF and exploit resources within the territory. In terms of codifying legal access rights, West African States interested in promoting TURF-based coastal fisheries might look to other regions of the world to evaluate what types of laws and regulations might be appropriate. In any case, a TURF should provide livelihood opportunities for generations to come.

Anthony Charles, *Use Rights and Responsible Fisheries: Limiting Access and Harvesting through Rights-Based Management, in* FISHERY MANAGER'S GUIDEBOOK – MANAGEMENT MEASURES AND THEIR APPLICATION (Kevin Cochrane ed., 2002).

¹³⁰ See, e.g., Tadashi Yamamoto, Fishery Regulations Adopted for Coastal and Offshore Fisheries in Japan with Particular Reference to the Fishing Right System, in Papers Presented AT THE EXPERT CONSULTATION ON THE REGULATION OF FISHING EFFORT (FISHING MORTALITY), FAO Fisheries Report No. 289 Supplement 3 (Jan. 17–23, 1983), http://www.fao.org/docrep/005/ac750e/AC750E08.htm (reviewing Japan's Common Fishing Rights system); KATE BONZON ET AL., ENVIRONMENTAL DEFENSE FUND, CATCH SHARES IN PRACTICE: CHILEAN NATIONAL BENTHIC RESOURCES TERRITORIAL USE RIGHTS FOR FISHING PROGRAMME (2010), http://www.edf.org/sites/default/files/11393_chilean-benthic.pdf (reviewing the Chilean National Benthic Resources Territorial Use Rights for Fishing Programme); Gregory Bennett, Customary Marine Tenure and Contemporary Resource Management in Solomon Islands, 12th International Coral Reef Symposium (July 9–13, 2012), http://www.icrs2012.com/proceedings/manuscripts/ICRS2

The central government might set quota allocations for each of the TURFs for any migratory fish or shared fish stocks to ensure more equitable access to fish resources between TURF areas. Once these general quotas are set, it would be up to the members assigned to TURF areas to decide whether to have a formal or informal allocation system among members.¹³¹ These allocations could be traded among TURFs through a cap and trade system so that TURFs with a comparative advantage in certain types of fish may have more opportunity to extract these fish. It would be in the interest of TURF members to have a cooperative governance system for allocation and conservation, because investing in a system of shared governance over the territory might prevent unnecessary ecological decline in the TURF area. In some countries within West Africa there may already exist legal entities able to provide community governance within a government designated TURF area. For example, in Gambia, the Fishery Act has established Gambian Community Fisheries Centres that are organized in part around the "concerns of communities living within the immediate environs of the area to be declared as a Special Management Area."132 The success of any of these TURFs will depend on properly linking the TURFs spatially with already existing customary fishing practices.

As long as the fishing communities remain meaningfully employed through the restoration stages, this project should remain viable because fishing communities already recognize the need to restrain their coastal fishing takes. In response to NGO coordination efforts to promote responsible fishing conditions, Assan Jallow, a Gambian fishermen, has called for both government involvement in reviving the coastal fisheries and concerted action from fellow fishermen: in his own words, he observed, "[i]f

01_22A_3.pdf (discussing the Solomon Islands Customary Marine Tenure System); R.E. Johannes, Government-Supported, *Village-Based Management of Marine Resources in Vanuatu*, 40 OCEAN & COASTAL MGMT. 165, 165–86 (1998), http://www.vanuatu.usp.ac.fj/sol_adobe_doc uments/usp%20only/vanuatu/ johannes2. pdf (discussing Vanuatu's customary marine tenure system).

131 See, e.g., Jose P. Cancino, Hirotsugu Uchida & James E. Wilen, *TURFs and ITOs*:

Areas for "purposes of (i) community-based fisheries management, and (ii) application of certain conservation and management measures and artisanal or subsistence fishing operations").

Collective vs. Individual Decision Making, 22 MARINE RESOURCE ECON. 391, 403 (2007) (discussing Japan and Chile's use of "Coordinated Effort Management" in TURFs, which empowers a committee to decide "who is to fish where on a daily, or other regular basis" in order to avoid over-harvesting of hot spots and to promote equity so that fishers are not repeatedly assigned poor fishing areas).

132 Fisheries Act, *supra* note 27, art. 15(2)(a); *id.* art. 14 (establishing Special Management

we do not stop catching the pelagic fish, we are not only posing a threat to the fish population, but also endangering our own livelihood." ¹³³

One of the advantages of TURF areas is that the future rights to administer and exploit marine resources within an area should provide an incentive for individuals or groups who are the holders of these rights to self-enforce fishery management measures. As the Food and Agriculture Organization noted in a position paper,

An additional likely advantage is that a localized TURF area provides both the opportunity and the incentive to manage the resources within the territory. Since the owner of a TURF (individual or community) has an exclusive right to future products, it will be in his (or its) interest to ensure the flow of future products. This would facilitate the imposition of management measures as well as the task of enforcement.¹³⁴

If a group of fishers with existing rights to fish within a TURF area failed to maintain certain conditions of ecosystem health within the area, it could trigger a previously agreed upon set of the thresholds based on certain baseline characteristics. If a given set of thresholds is triggered, a TURF area might return to the status of an MPA with the loss of use rights. The fishers would then have the obligation to either abandon their user rights to the government for a fixed market price or to participate again in restoration efforts at a labor rate set by the government. For individuals who have been assigned a TURF area from which it is not possible to obtain a subsistence catch due to causes beyond the control of the TURF members, such as a harmful algal bloom, it may be possible to reassign these individuals to a reserve area that would operate as a "commons" to protect the fishers against anomalous seasonal losses—at least as long as the reserve area is not too distant from the original fishery. 135

The success of restoration efforts within an MPA coupled with eventual property rights within a TURF will depend largely on full implementation of the previous policy suggestions for a moratorium and investment in

¹³⁴ Francis Christy, Food & Agri. Org., Territorial Use Rights in Marine Fisheries: Definitions and Conditions (1992).

¹³³ Jallow, *supra* note 128.

¹³⁵ *Id.*; J. Brownstein & John Tremblay, *Traditional Property Rights and Cooperative Management in the Canadian Lobster Fishery*, 7 LOBSTER NEWSL. 5 (1994), *available at* http://www.fish.wa.gov.au/Documents/rock_lobster/the_lobster_newsletter/lobster_newsletter_v7_no1.pdf.

enforcement. If industrial fishing activity is not temporarily halted within the EEZs of West African States, then the coastal communities may find themselves colliding with the industrial trawlers. The way to enforce the moratorium will be through adequate equipment and well-trained enforcement officials. The international finance community and national enforcement officials with years of experience in combating crime on the seas have an unprecedented opportunity in West Africa to protect environmental security and food autonomy for the region. None of these policy interventions are simple fixes because the story of the West African fisheries has become a complex social saga acted out by profiteers, pirates, corporate fleets, corrupt governments, lobbyists, and impoverished fishing communities. In spite of the complexity, something must be done soon. The negative trend for pelagic fish will continue until governments and communities act rationally. 137

VI. CONCLUSION

Scarcity is a systemic problem. With fisheries, it starts with State entities such as the European Commission and the Chinese government, both of which countenance irresponsible fishing on the part of private actors by negotiating on their behalf to secure them special access to distant water fisheries such as those discussed above. European and Chinese governments rationalize their actions by thinking in terms of supply and demand for global markets. For private corporate actors, the issue of physical scarcity in a regional fishery may not require behavioral changes as long as there is room for innovation that ensures profits in the global markets. Yet aquaculture products are a poor economic substitute both for fish from the complex, unique coastal ecosystems only located in West Africa and for the West African communities whose cultures have historically been built around marine fishing activities.

Yet the issue of scarcity extends beyond simply dwindling physical resources. Accompanying the scarcity of a physical resource is frequently a scarcity of other resources that are essential to address the physical scarcity

¹³⁶ EQUAL JUSTICE FOUNDATION, *supra* note 23, at 11.

¹³⁷ Villy Christensen et al., *Trends in Fish Biomass off Northwest Africa, 1960–2000, in 12* FISHERIES CENTRE RESEARCH REPORTS 215, 215–20 (Maria Lourdes D. Palomares & Daniel Pauly eds., 2004) (noting a decline in larger fish over the course of the past forty years and observing, "it is irrational, under such conditions to add to the fishing fleets of the region, whether that capacity is local, regional, or from other continents: it does not matter to the fish who it is that catches them").

problem. This Article has argued that while there may not be a scarcity of national law for fishery management, there is a recurring scarcity of enforcement of existing laws. West African States are unwilling to respond to the scarcity problem due to corruption, or are unable to respond because of a lack of vessels and trained enforcement staff. There is likewise a scarcity of relevant policy for coastal fishery management that addresses the livelihood concerns of coastal fishing communities. Without viable alternatives to secure their livelihoods, fishing communities are being urged by government ministries and NGOs to restrain fishing effort in order to avert further stock collapses. Support for long-term community-based ecological restoration projects might be the necessary policy intervention to rebuild abundance, not just for the physical resources but also for the families that depend on the resources.

International law has created many of the problems of dependency that reveal themselves in the overexploitation of marine resources within the West African region. Countries struggle with the burdens of their colonial heritages, which include reliance upon developmental aid from other States in order to create resource protection programs. In their pursuit of strategies to protect their own citizen's right to food, it is time for resource-consuming States to recognize the extreme vulnerability of other States such as those in West Africa as it relates to protecting their own populations' interests in fundamental food resources. International law provides opportunities for disenfranchised States to regain autonomy over management of their own To the extent that a general international legal principle of sustainability has emerged or may be emerging, other States may have obligations both to cease supporting activities that undermine protection of scarce resources and to offer support to create more robust conditions of resource sustainability that allow States to help their populations realize their right to food. 138

A temporary moratorium on industrial fishing, targeted aid in the form of enforcement vessels and enforcement officer training, and the creation a system of TURFs are opportunities for international law and international cooperation to support West African nations in their efforts to create "shared understandings" that will restore abundance to their waters. Ultimately, managing the fisheries of Western Africa is not about managing fish, but about managing the myriad of human actors who come to the West African

¹³⁸ See generally Case Concerning Gabčcikovo-Nagymaros Project (Hung. v. Slovk.), Judgment, 1997 I.C.J. 78, ¶ 140 (Sept. 25) (describing the "concept of sustainable development," while leaving open the question whether there is an *erga omnes* obligation to support sustainable development).

waters with different perceptions about what rules apply. In comparison to fish, humans are a troublesome lot to manage; yet the power of collective responsibility that is inherent in international law and that forms the basis for many of the policy recommendations in this paper may still ensure a future of abundant fisheries.