International Law Studies

- Published Since 1895 -

IUU Fishing as a National Security Threat: Revisiting India's Domestic Framework and Compliance with International Regimes

Pooja Bhatt

96 INT'L L. STUD. 442 (2020)



Volume 96

2020

IUU Fishing as a National Security Threat: Revisiting India's Domestic Framework and Compliance with International Regimes

Pooja Bhatt*

CONTENTS

I.	Introduction	443
II.	IUU Fishing in the Indian Ocean	445
	India's Legal Framework for Addressing IUU Fishing	
	A. Governing the Exclusive Economic Zone	
	B. Domestic Legislation	
	C. Maritime Enforcement Structures	
	D. International Law and IUU Fishing	
	E. Port Security	
	F. Regional Institutions	
IV.	Conclusions and Policy Recommendations	

^{*} Senior Research Fellow and Doctoral Candidate, Jawaharlal Nehru University, New Delhi, India. Email: poojabhatt.jnu@gmail.com.

The thoughts and opinions expressed are those of the author and not necessarily those of the U.S. government, the U.S. Department of the Navy, or the U.S. Naval War College.

I. INTRODUCTION

Illegal, unreported, and unregulated (IUU) fishing has long been seen as a food and economic security threat by coastal States. This article focuses on India's approach to IUU fishing in the waters of the Indian Ocean subject to Indian jurisdiction and in the adjacent areas of the high seas. Most of the focus on IUU fishing in India emerges from its impact on food, economic, and human security. Absent from this focus is the crucial distinction of how IUU fishing impacts Indian national security and the compliance of individual Indian states within the regional and international maritime regimes addressing IUU fishing. Accordingly, this article identifies areas for increased Indian cooperation with existing regional and international maritime regimes on IUU fishing. Finally, it suggests including IUU fishing in the national security discourse in view of the emerging geopolitical challenges India faces.

In 2018, the U.N. General Assembly, at the request of the U.N. Food and Agriculture Organization (FAO), declared June 5 "the International Day for the Fight against Illegal, Unreported and Unregulated Fishing." According to the FAO, IUU fishing accounts for up to twenty-six million tons of fish each year. The economic value of this capture has been placed at between \$10 billion and \$23 billion annually. According to a 2019 study published in *Marine Policy*, India provided \$277 million in subsidies to its fishers, of which \$174 million is believed to contribute to destructive fishing practices. IUU fishing directly impacts the food, economic, and health security of coastal States, including India, as well as further distressing the marine environment. Moreover, it is interconnected with several key societal issues,

^{1.} See, e.g., Ganapathiraju Pramod, Illegal, Unreported and Unregulated Marine Fish Catches in the Indian Exclusive Economic Zone (2010).

^{2.} Illegal, Unreported and Unregulated (IUU) Fishing, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, http://www.fao.org/iuu-fishing/fight-iuu-fishing/en/(last visited Oct. 8, 2020).

^{3.} Illegal, Unreported and Unregulated (IUU) Fishing, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, http://www.fao.org/iuu-fishing/en/ (last visited Oct. 8, 2020).

^{4.} Id.

^{5.} U. Rashid Sumaila et al., *Updated Estimates and Analysis of Global Fisheries Subsidies*, 109 MARINE POLICY, Nov. 2019, https://www.openchannels.org/sites/default/files/literature/updated_estimates_and_analysis_of_global_fisheries_subsidies.pdf; *see also* Sibi Arasu, *India's Fishers Need the Subsidies but India Doesn't Need the Illegal Fishing*, SCIENCE: THE WIRE, Apr. 12, 2020, https://science.thewire.in/environment/fishing-subsidies-big-trawlers-fueltax-exemption-fish-stock/.

including drug trafficking, piracy, and illegal trade, adding to the myriad issues faced by underdeveloped and developing coastal States in the Indian Ocean region.

The emergence of IUU fishing as a national security threat is still unfolding in the Indo-Pacific region but has not yet significantly impacted the Indian Ocean littoral States in the same manner it has in their Southeast Asia neighbors. Nonetheless, this article argues that there is a need to view IUU fishing not only as only a food, economic, and human security issue, but to recognize that it presents a larger national security threat. In the Indian context, addressing this threat means strengthening India's maritime legal infrastructure to safeguard its sovereignty and maritime interests.

IUU fishing is a national security threat because it undermines the national security of a country by adversely impacting its maritime security and governance structures. The article provides an overview of India's existing domestic maritime laws and their enforcement by its maritime enforcement agencies, as well its compliance with international maritime laws concerning IUU fishing. As a template of State responses toward IUU fishing, the article briefly presents several Southeast Asian case studies then suggests measures India can take to effectively confront the threat presented by illegal fishing trawlers operating beyond its waters by engaging with regional and international maritime legal regimes and organizations to address IUU fishing.

IUU fishing increasingly threatens the global economic order and State sovereignty. States such as China have been operating distant water fishing fleets that often fish in the exclusive economic zones (EEZ) of other States. This practice has led to States expanding their domestic maritime law enforcement capabilities to aggressively address IUU fishing. In some instances, this has led to maritime law enforcement actions violating the sovereignty of other States. Some States have engaged in aggressive behavior against foreign fishing boats in driving them away, violating the sovereignty of those States. Actions such as those of the Chinese Coast Guard activity against an Indonesian fishing vessel, as well as the sinking of a Vietnamese fishing vessel conducting fishing in its own waters, are some of the examples that have complicated the issue of fishing. In other words, IUU fishing no longer remains in the domain of non-traditional threats—human, economic, and environmental—but has now become a security threat to national sovereignty and a State's resources.

II. IUU FISHING IN THE INDIAN OCEAN

The perils of IUU fishing are not new to the waters of the Indian Ocean. In the past, however, they have largely been subsumed with other non-traditional security threats. Recent studies highlight that transnational organized criminal groups use IUU fishing in the commission of other crimes, such as the trafficking of drugs, arms, and persons. Most Indian Ocean littoral States have underdeveloped economies marred by poorly developed and implemented government policies, administrative systems beset by corruption, and complicated issues of neglect and marginalization that often push poverty-stricken fishers to adopt illegal fishing practices and assist criminal organizations conducting transnational crimes.

Narrowly divided and often confusing demarcation of maritime delimitation zones between some closely located Asian coastal States further complicates matters for fishers that unknowingly fish in other States' waters. Frequent cases of IUU fishing arrests by India and Sri Lanka in the Palk Strait, by India and Pakistan in the Rann of Kutch, and by India and Bangladesh in the Bay of Bengal attest to this point.

Another subject in the limelight of IUU fishing are allegations made by international organizations of misuse of the subsidies provided by the governments in the region to its fishers.⁷ For example, the Indian government provides fuel subsidies to fishers to alleviate poverty and provide economic assistance. This often results in the adoption of illegal fishing practices, such as overfishing using larger trawlers. In providing subsidies, the Indian government is balancing poverty alleviation in its coastal communities against the harm done to its fishing ecosystem. In ongoing World Trade Organiza-

^{6.} See, e.g., CATHY HAENLEIN, BELOW THE SURFACE: HOW ILLEGAL, UNREPORTED AND UNREGULATED FISHING THREATENS OUR SECURITY (2017), https://rusi.org/sites/default/files/201707_rusi_below_the_surface_haenlein.pdf; Illegal, Unreported and Unregulated (IUU) Fishing, Links between IUU Fishing and Other Crimes, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, http://www.fao.org/iuu-fishing/background/links-between-iuu-fishing-and-other-crimes/en/ (last visited Oct. 8, 2020).

^{7.} See, e.g., Isabel Jarrett & Reyna Gilbert, Fisheries Subsidies Reform Could Reduce Overfishing and Illegal Fishing Case Studies Find, PEW (July 22, 2020), https://www.pewtrusts.org/en/research-and-analysis/articles/2020/07/22/fisheries-subsidies-reform-could-reduce-over-fishing-and-illegal-fishing-case-studies-find; see also Michael Crispino, 5 Ways Harmful Fisheries Subsidies Impact Coastal Communities, WORLD WILDLIFE FEDERATION (Nov. 21, 2019), https://www.worldwildlife.org/stories/5-ways-harmful-fisheries-subsidies-impact-coastal-communities.

tion negotiations prohibiting certain subsidies that contribute to overcapacity and overfishing, India is seeking an exemption that would permit continued subsidies. India has stated that four million fishers could be negatively impacted if the subsidies ended. Pressing domestic and inter-State regional issues, as well as political interests, has left little space for the larger discussion of IUU fishing as an emerging threat to national security.

Two of the most recent contentious issues related to IUU fishing within the region have been the deployment of fishing vessels in areas of maritime territorial disputes and the use of military force against illegal fishers within EEZ of the affected State. Asian States have regularly witnessed illegal fishers and trawlers, largely from China, in their waters. The Chinese distantwater fleet systematically and continuously violates the EEZs of several countries around the world, jeopardizing those countries' national security. The Chinese fishing fleet has been accused of plundering sea resources as far away as Africa and South America. 12

State responses to such illegal activities require close study as they reflect individual state position and the capacity to respond to IUU activities. They also indicate the degree to which States conform to established norms and legal regimes. In high-profile cases reported in 2016¹³ and 2019,¹⁴ the Argentine Coast Guard opened fire on Chinese fishing vessels engaged in IUU

^{8.} Amiti Sen, *India Pushes for 'Permissible' Fisheries Subsidies at WTO*, BUSINESS LINE, Feb. 18, 2020, https://www.thehindubusinessline.com/economy/india-pushes-for-permissible-fishery-subsidies-at-wto/article30853349.ece#:~:text=In-

dia%20 has%20 made%20 a%20 case, for%20 navigation%20 and%20 safety%20 equipment.

^{9.} *Id*.

^{10.} David Tickler et al., Far from Home: Distance Patterns of Global Fishing Fleets, SCIENCE ADVANCES, Aug. 1, 2018, https://advances.sciencemag.org/content/4/8/eaar 3279.

^{11.} Mozambique Fishermen Point to China as Fish Stocks Dwindle, FISHERIES COMMITTEE FOR THE WEST CENTRAL GULF OF GUINEA (Jan. 20, 2020), https://fcwc-fish.org/othernews/mozambiques-fishermen-point-to-china-as-fish-stocks-dwindle.

^{12. 260} Chinese Boats Fish near Galapagos, Ecuador on Alert, TIMES OF INDIA, July 31, 2020, https://timesofindia.indiatimes.com/world/rest-of-world/260-chinese-boats-fish-near-galapagos-ecuador-on-alert/articleshow/77276746.cms; Marco Aquino, Chinese Fishing Fleet off Peru Stirs Up Diplomatic Waters, SYDNEY MORNING HERALD, Sept. 26, 2020, https://www.smh.com.au/world/south-america/chinese-fishing-fleet-off-peru-stirs-up-diplomatic-waters-20200926-p55zi5.html.

^{13.} Tom Kadie, *The Price of a Fish: Illegal Fishing and the Consequences for Latin America*, BERKELEY POLITICAL REVIEW (May 21, 2018), https://bpr.berkeley.edu/2018/05/21/the-price-of-a-fish-illegal-fishing-and-the-consequences-for-latin-america/.

^{14.} Mark Godfrey, Argentine Coast Guard Opens Fire on Chinese Fishing Vessel, SEAFOOD-SOURCE, (Mar. 04, 2019), https://www.seafoodsource.com/news/supply-trade/argentine-coast-guard-opens-fire-on-chinese-fishing-vessel.

fishing in its EEZ. These fishing vessels reportedly do not adhere to the requirement mandated by international regulations to keep their automatic identification systems transmitters continuously activated. At the same time, crews comprised of maritime militia disguised as civilian fishers operate Chinese fishing vessels in waters near the South China Sea. These developments call for including IUU fishing in the mainstream of the national security discourse. Though there are no established cases of China's maritime militia in the Indian Ocean, a Chinese fishing fleet was present in the Indian EEZ in 2019.

States have responded differently to the threat presented by IUU fishing. For the sake of coherence, due to their similar socioeconomic systems and geographical proximity, this article only considers responses to combat IUU fishing practices by Asian coastal States. Just as has been seen globally, these States have shown varied responses to illegal fishing. The responses range from the adoption of destructive practices, such as the shooting and sinking of foreign ships in their EEZs by coast guards and navies, to capacity building efforts, such as strengthening domestic regulatory mechanisms and maritime infrastructure, as Thailand and Vietnam have done.

Indonesia has taken an especially strong stance against IUU fishing, sinking as many as fifty illegal foreign vessels in 2019,¹⁷ although this figure was lower than 2018, where it sank as many as 125 vessels.¹⁸ In one incident, a China Coast Guard vessel helped a Chinese fishing boat escape following its arrest for unlawful fishing, thus frustrating Indonesian enforcement efforts.¹⁹

Other Southeast Asia countries have focused on curbing IUU fishing by their nationals. This focus was prompted by the European Commission's

^{15.} Gregory Poling, *China's Hidden Navy*, FOREIGN POLICY, June 25, 2019, https://foreignpolicy.com/2019/06/25/chinas-secret-navy-spratlys-southchinasea-chinesenavy-maritimemilitia/.

¹⁶ Chinese Trawlers Sighted in the Indian Ocean: Official, HINDUSTAN TIMES, Jan. 29, 2020, https://www.hindustantimes.com/india-news/chinese-trawlers-sighted-in-indian-ocean-official/story-1IKLL308YtvPuMoXKfmqzI.html.

^{17.} Indonesia Sinks 51 Fishing Boats, BANGKOK POST, May 04, 2019, https://www.bang-kokpost.com/world/1672020/indonesia-sinks-51-fishing-boats.

^{18.} *Id*.

^{19.} Haeril Halim, Anggi M. Lubis & Stefani Ribka, *RI Confronts China on Fishing*, JA-KARTA POST, Mar. 21, 2016, https://www.thejakartapost.com/news/2016/03/21/ri-confronts-china-fishing.html.

carding process, which identifies non-European Union countries having in-adequate measures to prevent and deter IUU fishing.²⁰ Under this process, countries are issued "yellow cards," a formal warning that if improvement is not forthcoming, they may be banned from exporting fish to the European Union market.²¹ Several Asian countries, including Vietnam, Thailand, the Philippines, Taiwan, and Cambodia, have been issued yellow cards.²² Yellow cards may be revoked upon a showing of improved governance of its fisheries.²³

In its effort to have its yellow card revoked, Vietnam focused initially on tightening the surveillance mechanism to restrict illegal fishing in foreign waters by its fishers. The Fisheries Act of 2015, as amended in 2017, requires fishing boats of 30 gross tons to have a tracking system installed and sets a time limit on the number of days boats are allowed to be at sea. ²⁴ Further amendments in 2019 were designed to ensure compliance with various international regulations. ²⁵ Fines and loss of fishing licenses are authorized for illegal fishing in foreign waters. ²⁶

Similarly, the Thai government has focused on strengthening its maritime law enforcement, inspections, and enforcement of relevant conventions to address IUU fishing.²⁷ It requires monitoring, control, and surveillance (MCS) systems on Thai-flagged oversea fishing vessels, with the goal of preventing, deterring, and eliminating IUU fishing outside Thai waters, both in waters of coastal States and on the high seas.²⁸

^{20.} EU Carding Decisions, IUUWATCH, http://www.iuuwatch.eu/map-of-eu-carding-decisions/ (last visited Oct. 8, 2020).

^{21.} *Id*.

^{22.} Stephen Chin, A Hard Tackle against Illegal Fishing, ASEAN POST, Aug 7, 2018, https://theaseanpost.com/article/hard-tackle-against-illegal-fishing.

^{23.} See Yiamyut Suttichaya, Vietnam's Struggle over IUU Fishing Warning, Fatal to Its Fishermen?, PRACHATAI, Apr. 3, 2019, https://prachatai.com/english/node/8008.

^{24.} Id.

^{25.} Id.

^{26.} Id.

^{27.} Press Release, Ministry of Foreign Affairs of Thailand, Thailand's Progress in Combating IUU Fishing: Thailand's Response to the Comments of Human Rights Watch on the Protection of Labour in Fisheries Sector (Apr. 27, 2018), https://www.thaiembassy.ch/Content/Embassy/140.html.

^{28.} Ministry of Agriculture and Cooperatives, *Thailands [sic] Actions on Combating IUU Fishing*, UN OCEAN CONFERENCE, https://oceanconference.un.org/commitments/?id= 18205 (last visited Oct. 8, 2020).

Indian Ocean States have confronted the same issues as those faced by Southeast Asian States—their own fishers conducting IUU fishing in neighboring waters and vice versa, as well as the increased presence of large, distant water fishing fleets from outside the region. In one example of the latter, on June 7, 2019, ten Chinese fishing vessels belonging to the Fu Yuan Yu fleet, owned by Dongxinglong Ocean Fishing Company based in Fujian province, entered Indian waters near the state of Maharashtra on the Arabian Sea.²⁹ These vessels had received permission to enter Indian waters in accordance with customary international law concerning vessels in distress³⁰ from the Indian Coast Guard to shelter in the port of Ratnagiri during cyclone Vayu.³¹

A later investigation determined these vessels had engaged in illegal fishing activities in the Indian EEZ and may have harvested up to 80,000 tons of marine life a month.³² The fleet also carried illegal gear, such as drifting gill nets, bottom trawl nets, and dolphin attracting devices.³³ Such devices are banned by many national fisheries commissions and are under investigation by international maritime agencies.³⁴ Further, according to an IUU Risk Intelligence report, the Fu Yuan Yu fleet had already engaged in IUU fishing activities in the southern Indian Ocean and South African waters.³⁵

^{29.} See Badri Chatterjee, In Troubled Waters: 10 Chinese Vessels Found Fishing Illegally in Maharashtra, HINDUSTAN TIMES, June 20, 2019, https://www.hindustantimes.com/mumbai-news/in-troubled-waters-10-chinese-vessels-found-fishing-illegally-in-maharashtra/story-FigOPCnmT300xuSDeqFjvN.html; Manoj Viswanathan, Fishermen Cry Foul as Chinese Trawlers "Milk" Indian Seas, NEW INDIAN EXPRESS, June 27, 2019, https://www.newindianexpress.com/states/kerala/2019/jun/27/fishermen-cry-foul-as-chinese-trawlers-milk-indian-seas-1995919.html.

^{30.} See R. R. CHURCHILL & A. V. LOWE, THE LAW OF THE SEA 63 (3d ed. 1999).

^{31.} Jagyaseni Biswas, Chinese Vessels Caught Fishing in Indian EEZ Points at Larger Issue of Illegal Resource Exploitation, MONEY CONTROL (June 26, 2019), https://www.moneycontrol.com/news/india/chinese-vessels-caught-fishing-in-indian-eez-points-at-larger-issue-of-illegal-resource-exploitation-4129181.html.

^{32.} Chatterjee, supra note 29; Viswanathan, supra note 29.

^{33.} Biswas, supra note 31.

^{34.} *Id*.

^{35.} Pramond Ganapathiraju, 3 Chinese Squid Jiggers in South African Waters — Illegal Fishing or Innocent Passage, IUU RISK INTELLIGENCE (May 29, 2016), https://iuuriskintelligence.com/chinese-squid-jiggers-south-african-waters-illegal-fishing-innocent-passage/.

III. INDIA'S LEGAL FRAMEWORK FOR ADDRESSING IUU FISHING

A. Governing the Exclusive Economic Zone

The coastline of India measures 7,517 kilometers, distributed among nine coastal states and four union territories; the coastal states are Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Odisha, and West Bengal. These state governments govern the territorial sea, which extends up to 12 nautical miles from the coastline. India's EEZ, which is governed by the national government, encompasses an area of 2,305,143 square kilometers.

India is the second-largest fish producing country in the world, accounting for 6.3 percent of global fish production and sustaining 14,500,000 fishers. Thirty percent of the EEZ is spread across the Andaman, Nicobar, and Lakshadweep Islands, but only 5 percent of the potential tuna resource in this area is currently harvested. The Indian Department of Fisheries has observed, "that there is a huge potential [to] harness[] tuna and tuna-like species" in this area. But this area too is vulnerable to illegal fishing.

Taking cognizance of increasing incidents of IUU fishing, the Indian government introduced the Marine Fisheries (Regulation and Management) Bill, 2019.⁴¹ To curb illegal deep trawler fishing, the bill provides for the impoundment of foreign fishing vessels fishing in the EEZ and a fine for the owner or master.⁴² It also issues regulations for foreign fishing vessels transiting the EEZ⁴³ and criminal penalties for violating those regulations.⁴⁴ The

^{36. 9} Indian States with Longest Coastline of Sea, WALK THROUGH INDIA, http://www.walkthroughindia.com/offbeat/9-indian-states-with-longest-coastline-of-sea/ (last visited Oct. 8, 2020).

^{37.} Geoffrey Migiro, Countries with the Largest Exclusive Economic Zone, WORLD ATLAS (June 29, 2018), https://www.worldatlas.com/articles/countries-with-the-largest-exclusive-economic-zones.html.

^{38.} *India Accounts for 6.3% of Global Fish Production: Fisheries Dept*, BUSINESS STANDARD, June 18, 2019, https://www.business-standard.com/article/pti-stories/india-accounts-for-6-3-of-global-fish-production-fisheries-dept-119061800013_1.html.

^{39.} Fisheries, U.T. Administration of Lakshadweep, GOVERNMENT OF INDIA, https://lakshadweep.gov.in/departments/fisheries/ (last visited Oct. 8, 2020).

^{40.} See supra note 38.

^{41.} See Marine Fisheries Regulation and Management (MFRM) Bill 2019.

^{42.} *Id.* ch. VIII, § 16(2).

^{43.} Id. ch. IX, § 22(2)(g).

^{44.} *Id.* ch. VIII, § 16(4).

bill requires Indian fishers to obtain a license to fish in the EEZ⁴⁵ and for the impoundment of vessels and imposition of fines when a license is not obtained or the conditions of the license are violated.⁴⁶ Further, it provides for the establishment of a MCS system to ensure compliance with fishery management measures.⁴⁷

The bill defined IUU fishing by incorporating the following previous definitions of illegal fishing, unreported fishing, and unregulated fishing appearing in Indian legislation:

(A) Illegal fishing:

- (i) conducted by Indian fishing vessels in the Exclusive Economic Zone of India without the permit issued under this Act;
- (ii) conducted by foreign vessels in the maritime zones of India;
- (iii) conducted by Indian flag vessels in contravention of the conservation and management measures adopted by Regional Fisheries Management Organization to which India is a party, or relevant provisions of the applicable international law;

(B) Unreported fishing:

(i) which have not been reported, or have been misreported to the authority notified under this Act, in contravention of this Act and the Rules and Regulations framed thereunder;

(C) Unregulated fishing:

- (i) by an Indian fishing vessel, in a manner that is not consistent with or contravenes the conservation and management measures of regional fisheries management organization in its area of application; or
- (ii) in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with India's responsibilities for the conservation of living marine resources under international law.⁴⁸

India's response to IUU fishing has focused on improving coordination and relations between the central government and the individual Indian states, as well as relations with neighboring coastal States. This approach has

^{45.} *Id.* ch. II, § 3(1).

^{46.} *Id.* ch. VIII, § 16(1).

^{47.} *Id.* ch. III, § 5.

^{48.} *Id.* ch. I, § 2(o)(A−C).

regulated IUU fishing to consideration only as a non-traditional security issue viewed primarily through socioeconomic development. In 2019, the Minister of Agriculture and Farmers' Welfare, which administers the Department of Fisheries, outlined the government's response to IUU fishing in India's Lok Sabha (Lower House of Parliament) in response to a question asking what action had been taken to stop IUU fishing. The Minister stated:

- a) Adequate measures have been taken by the Government to prevent and control . . . (IUU) fishing in the . . . (EEZ) of India which, inter alia, include:
- 1. Authorization of the Indian Coast Guard under the Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act, 1981 . . . to prevent IUU fishing by foreign fishing vessels in Indian waters.
- 2. Regulation, monitoring, control and surveillance by agencies of Maritime States/Union Territories (UTs) under their respective Marine Fishing Regulation Acts (MFRAs) for preventing IUU fishing.
- 3. Implementation of ReALCraft, a web based regime for mandatory registration of fishing vessels under [the] Merchant Shipping Act 1958 and licensing of fishing vessels under [the] respective MFRAs.
- 4. Issuance of Biometric Identity cards to marine fishers.
- 5. Notification of the National Policy on Marine Fisheries, 2017 that provides guidance for prevention, deterrence and eliminating IUU fishing in Indian waters.
- 6. Issuance of guidelines from time to time for regulation of Indian fishing vessels in ${\rm EEZ}.^{49}$

Further, the Minister concluded that the "Government of India regularly holds consultations with coastal states/UTs on the matters of marine fisheries development, management and regulation, which include prevention of IUU fishing."⁵⁰

In addition to those actions, in 2017, the Indian government revoked the letters of permit that had allowed foreign vessels to fish in the EEZ.⁵¹ However, as recently as April 2020, local fishers in southern India have reported

^{49.} Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture and Farmers Welfare, LOK SABHA, *Unregulated Fishing in Exclusive Economic Zone* (Jan. 8, 2019), http://loksabhaph.nic.in/Members/QResult16.aspx?qref=78098.

^{50.} Id.

^{51.} Mahir Haneef, Govt Withdraws Permission for Foreign Vessels to Operate within India's EEZ, TIMES OF INDIA, Mar. 6, 2017, https://timesofindia.indiatimes.com/city/kochi/govt-withdraws-permission-for-foreign-vessels-to-operate-within-indias-eez/articleshow/57502020.cms.

seeing foreign vessels fishing in the EEZ during the fish-breeding season.⁵² Even before these sightings, the Ministry of Fisheries introduced a draft bill to prevent illegal fishing in Indian EEZ.⁵³ Pending Cabinet approval, the draft bill assumes significance in the backdrop of growing illegal fishing in the EEZ. Under the proposed bill, the Indian state governments will be allowed to issue a license for fishing in the EEZ at the Central government's direction.⁵⁴ The fishers who want to fish in EEZ have to cross the territorial sea that is governed by the individual states. Furthermore, the bill ensures that only Indian fishers with valid fishing licenses will be able to fish within the country's EEZ. No foreign vessels can enter this zone except with a right to passage for which they have to apply for permission.

In addition to these reforms, the government's recently introduced draft National Fisheries Policy 2020 has placed a focus on IUU fishing and national security.⁵⁵ National Fisheries Policy 2020 is largely an attempt to invigorate fisheries and to promote inter-state cooperation in coastal area development and ecotourism. There are, however, several legal and operational provisions that address IUU fishing and the resources necessary to combat it. It provides that the central, state, and UT governments will establish a sound and effective MCS system under which all fishing vessels will abide by MCS requirements and have suitable transponders and communication systems when at sea that disclose the latitude and longitudinal position of the vessel. 56 The Indian Coast Guard, Coastal Police, and the regulatory and enforcement agencies are to be adequately trained and equipped to strengthen and implement the MCS system.⁵⁷ Importantly, the government indicates it "will establish a sound mechanism to ensure that the Indian fishing fleet does not engage in IUU fishing."58 Further, the draft National Fisheries Policy recognizes the potential to expand the harvesting of the resources of the high seas and promotes the use of necessary fishery resources

^{52.} Coast Guard, Navy Must Prevent Foreign Fishing Vessels: Fishermen, OUTLOOK, Apr. 18, 2020, https://www.outlookindia.com/newsscroll/coast-guard-navy-must-prevent-foreign-fishing-vessels-fishermen/1806907.

^{53.} Govt Drafts New Bill to Prevent Illegal Fishing in India's EEZ, BUSINESS STANDARD, Jan. 29, 2020, https://www.business-standard.com/article/pti-stories/govt-drafts-new-bill-to-prevent-illegal-fishing-in-india-s-eez-120012901380_1.html.

^{54.} *Id*.

^{55.} Government of India, National Fisheries Policy, 2020, at 9, http://nfdb.gov.in/PDF/National_Fisheries_Policy_2020.pdf (last visited Oct. 8, 2020).

^{56.} *Id*.

^{57.} *Id*.

^{58.} Id.

to achieve that goal, subject to compliance with relevant international agreements.⁵⁹

But most importantly, the current Indian government's approach to IUU fishing recognizes its interrelation with maritime security. This acknowledgment opens up several avenues for collaboration and cooperation with other States and international organizations from which India can benefit.

B. Domestic Legislation

Two domestic legislative acts drive the government's response to IUU fishing. The first, the Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976,⁶⁰ defines India's maritime zones, which comply with the 1982 U.N. Convention on the Law of the Sea⁶¹ (UNCLOS) to which India is a party. Thus, India enjoys its sovereign rights, including fishing rights, in the delimited waters under both domestic and international maritime laws.

The second, the Maritime Zones of India (Regulation of Foreign Vessels) Act, 1981, provides for the regulation of foreign fishing vessels in India's maritime zones and related matters.⁶² It authorizes the Indian Coast Guard, when appropriate, to stop and board a fishing vessel, seize and detain the vessel, including any fishing gear, fishing equipment, stores, or cargo found onboard the vessel or belonging to the vessel, and to seize any fishing gear abandoned by the vessel.⁶³

These laws provide the domestic legislation governing India's maritime zones and the national maritime security framework for addressing IUU fishing by foreign vessels. Though the current maritime laws acknowledge the issue of foreign vessels in the Indian waters, adding the new and developing scenarios of such vessels conducting IUU fishing in these waters is important and adds depth to the legislation.

^{59.} Id. at 8.

^{60.} The Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act, 1976, No. 80, Acts of Parliament, 1976.

^{61.} U.N. Convention on the Law of the Sea, opened for signature Dec. 10, 1982, 1833 U.N.T.S. 397 (entered into force Nov. 16, 1994) [hereinafter UNCLOS].

^{62.} The Maritime Zones of India (Regulation of Fishing by Foreign Vessels) Act, 1981, No. 42, Acts of Parliament, 1981.

^{63.} *Id. §* 9.

C. Maritime Enforcement Structures

In a welcome step to enhance coastal maritime security, in 2019 the government provided the Coast Guard additional authority under the Coast Guard Act of 1978.⁶⁴ The Coast Guard now has the authority to visit, board, and seize vessels and objects suspected of being used to commit a crime. As the Act states, "every member of the Coast Guard" has the authority to:

to visit board, search and seize any vessel, or arrest any person or seize any artificial island or any floating or moored object or any underwater object including any maritime property involved or suspected to be used in the commission of any offence . . . within the maritime zone[s] of India."65

Prior to the promulgation of the 2019 amendment, the Coast Guard had no specific authority to board a vessel transiting the EEZ. Instead, it used provisions of the Customs Act, ⁶⁶ Narcotic Drugs and Psychotropic Substances Act, ⁶⁷ and other relevant legislation to board and seize vessels. However, this practice often resulted in unsuccessful criminal or civil actions and the filing of civil suits against the Coast Guard. The new authority, which the Coast Guard had been seeking for several years, closes these enforcement loopholes.

The 2019 amendment complies with the boarding regime set forth in UNCLOS. Entitled "Enforcement of laws and regulations of the coastal State," UNCLOS Article 73(1) provides:

The coastal State may, in the exercise of its sovereign rights to explore, exploit, conserve and manage the living resources in the exclusive economic zone, take such measures, including boarding, inspection, arrest and judicial proceedings, as may be necessary to ensure compliance with the laws and regulations adopted by it in conformity with this Convention.⁶⁸

In turn, Article 14 of the Coast Guard Act of 1978 indicates the Coast Guard's duties and functions are to "protect by such measures, as it thinks fit, the maritime and other national interests of India in the maritime zones

^{64.} The Coast Guard Act, 1978, No. 30, Acts of Parliament, 1978 (India).

^{65.} Notification, 2019, Gazette of India, pt. II, sec. 4 (Dec. 5, 2019) (emphasis added).

^{66.} The Customs Act, 1962, No. 52, Acts of Parliament, 1962 (India).

^{67.} The Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988, No. 46, Acts of Parliament, 1988 (India).

^{68.} UNCLOS, *supra* note 61, art. 73(1).

of India."⁶⁹ Under this provision, the Coast Guard has apprehended foreign vessels and fishers from numerous countries, including Sri Lanka,⁷⁰ Indonesia,⁷¹ and Myanmar,⁷² for violating various laws and regulations applicable in India's maritime zones.

The Indian Navy also conducts maritime law enforcement operations, notably those directed at piracy, but it also contributes to combating IUU fishing.⁷³ The Navy has proven its capability to address IUU fishing and piracy in Indian waters and beyond, under the powers vested in it by various legislative acts.⁷⁴ It has successfully engaged in anti-piracy missions in the areas of primary interest to India, such as the Gulf of Aden, and conducted maritime domain surveillance operations ranging from the Andaman Sea to the Strait of Malacca.⁷⁵

These efforts complement mandates provided by U.N. Security Council resolutions and international maritime regimes such as UNCLOS. For example, piracy, armed robbery at sea, and IUU fishing off the coast of Somalia have been addressed in a series of Security Council resolutions. These resolutions note the "complex relationship between IUU fishing and piracy,"

^{69.} The Coast Guard Act, supra note 64, art. 14.

^{70.} Ashish Pandey, *Indian Coast Guard Apprehends 25 Sri Lankan Fishermen*, INDIA TODAY, Feb. 19, 2019, https://www.indiatoday.in/india/story/indian-coast-guard-apprehends-sri-lankan-fishermen-1460048-2019-02-19.

^{71.} Sanjib Kumar Roy, *Indian Coast Guard Nahs Indonesian Fishing Boat with 39 Crew Members for Illegal Fishing*, NEW INDIAN EXPRESS, Oct. 31, 2017, https://www.newindianex-press.com/nation/2017/oct/31/indian-coast-guard-nabs-indonesian-fishing-boat-with-39-crew-members-for-illegal-fishing-1687630.html.

^{72.} Indian Coast Guard Apprehends Myanmarese Fishing Boats and 24 Poachers from Indian EEZ, UNITED NEWS OF INDIA, Sept. 17, 2019, http://www.uniindia.com/indian-coast-guard-apprehends-myanmarese-fishing-boats-and-24-poachers-from-indian-eez/east/news/1732191.htm.

^{73.} Indian Navy's Anti-Piracy Patrol Seizes Arms and Ammunition off Somalia Coast from a Vessel, FINANCIAL EXPRESS, Dec. 9, 2019, https://www.financialexpress.com/defence/indian-navys-anti-piracy-patrol-seizes-arms-and-ammunition-off-somalia-coast-from-a-vessel/1408234/.

^{74.} INDIAN NAVY, INDIAN MARITIME DOCTRINE 2015, https://www.indiannavy.nic.in/content/indian-maritime-doctrine-2015-version.

^{75.} See Anti-Piracy Operations, Gulf of Aden Deployment, INDIAN NAVY, https://www.indiannavy.nic.in/content/anti-piracy-operations-gulf-aden-deployment (last visited Oct. 8, 2020); India Boosts Strait of Malacca Maritime Surveillance, MARITIME EXECUTIVE (Jan. 29, 2016), https://www.maritime-executive.com/editorials/india-boosts-maritime-surveillance-near-strait-of-malacca.

^{76.} See, e.g., S.C. Res. 2383 (Nov. 7, 2017).

recognizing that IUU fishing accounts for millions of dollars of lost revenue . . . and can contribute to destabilization among coastal communities."⁷⁷

An example of the Indian Navy's enforcement of a U.N. Security Council resolution occurred in December 2018, when personnel from INS *Sunayna* boarded a vessel in the Gulf of Aden under the authority accorded by Security Council Resolution 2383.⁷⁸ A search of the vessel found that it was engaged in illegal fishing and was also carrying four high-caliber AK-47s and one light machine gun, along with ammunition for these weapons.⁷⁹ Acting under UNCLOS Articles 105 and 107,⁸⁰ the *Sunayna* could have seized the vessel as a pirate ship and arrested its crew. The ship, however, was allowed to proceed after the confiscation of the arms and ammunition.

D. International Law and IUU Fishing

India became a party to UNCLOS in 1995 and has had nearly continuous representation on the Commission on the Limits on the Continental Shelf, the International Tribunal for the Law of the Seas (ITLOS), 81 and the International Seabed Authority since their inception in 1997, 1996, and 1994, respectively. UNCLOS and ITLOS jurisprudence provide the legal framework for India to further strengthen its domestic maritime law infrastructure on IUU fishing.

For high seas fishery resources, UNCLOS sets forth only general principles of conservation, as well as optimal use of and management of resources, 82 all subject to interpretation in determining their application to IUU fishing. By contrast, UNCLOS provides a detailed framework governing fish stocks (and other natural resources) in a coastal State's delimited waters, particularly those found in the EEZ. In defining the rights, jurisdiction, and duties of the coastal State in the EEZ, UNCLOS Article 56 provides that the coastal State has

^{77.} Id. pmbl.

^{78.} Id.

^{79.} See supra note 73.

^{80.} See UNCLOS, supra note 61, art. 105 ("On the high seas, or in any other place outside the jurisdiction of any State, every State may seize a pirate ship or aircraft, or a ship or aircraft taken by piracy and under the control of pirates, and arrest the persons and seize the property on board."); see id. art. 107 ("A seizure on account of piracy may be carried out only by warships . . . clearly marked and identifiable as being on government service and authorized to that effect").

^{81.} There was an Indian judge on ITLOS from its inception in 1997 to 2017.

^{82.} UNCLOS, *supra* note 61, arts. 116–19.

- (a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds:
- (b) jurisdiction as provided for in the relevant provisions of this Convention with regard to:
 - (i) the establishment and use of artificial islands, installations and structures;
 - (ii) marine scientific research;
 - (iii) the protection and preservation of the marine environment;
- (c) other rights and duties provided for in this Convention.83

In 2013, ITLOS was asked to provide an advisory opinion on four questions submitted by the Sub-Regional Fisheries Commission concerning a State's responsibility for IUU fishing by vessels flying its flag. The most relevant question to the issue of fishing within another State's EEZ asked, "What are the obligations of the flag State in cases where illegal, unreported and unregulated (IUU) fishing activities are conducted within the Exclusive Economic Zone of third party States?" Citing UNCLOS Articles 58(3), 62(4), and 192, the Tribunal held that "[t]he flag State is under an obligation . . . to take the necessary measures to ensure that vessels flying its flag are not engaged in IUU fishing activities . . . within the exclusive economic zones of . . . [other] States." The advisory opinion also addressed the flag State's liability for IUU violations. Unaddressed was the question of what action a flag State is to take against a captain and crew engaged in IUU fishing.

It is clear, however, that there is a requirement to act to prevent and deter future violations. Here, the Tribunal stated:

While the nature of the laws, regulations and measures that are to be adopted by the flag State is left to be determined by each flag State in accordance with its legal system, the flag State nevertheless has the obligation to include in them enforcement mechanisms to monitor and secure compliance with

^{83.} Id. art. 56.

^{84.} Request for Advisory Opinion submitted by the Sub-Regional Fisheries Commission, Case No. 21, Advisory Opinion of Apr. 2, 2015, ITLOS Rep. 4, 8 [hereinafter Request for Advisory Opinion].

^{85.} Id. at 63.

these laws and regulations. Sanctions applicable to involvement in IUU fishing activities must be sufficient to deter violations and to deprive offenders of the benefits accruing from their IUU fishing activities.⁸⁶

In well-documented cases involving the Hua Xiang 801, Hua Li, and Jing Yuan 626,⁸⁷ which involved IUU fishing at various times in the Argentine EEZ, there have been no reports of action taken by China, the flag State, against the vessel owners, raising genuine concerns about China's commitment to ending IUU fishing by Chinese fishers.

With regard to the question of possible flag-State liability for the acts of its fishers who engage in IUU fishing, the Tribunal noted that UNCLOS provides no guidance; thus, it was necessary to examine the question under the rules on the responsibility of States for internationally wrongful acts. ⁸⁸ Under those rules, the Tribunal indicated that "the flag State is not liable if it has taken all necessary and appropriate measure measures to meet its 'due diligence' obligations to ensure vessels flying its flag do not conduct IUU fishing activities." The advisory opinion thus not only reemphasizes that flag States must combat IUU fishing, but also confirms a flag State's liability where its due diligence obligations are not discharged. I cannot help but note, however, notwithstanding the significance of the language, that the advisory opinion was issued in 2015 and that the incidents cited above of IUU fishing in the Indian EEZ all occurred after that date. ⁹⁰

E. Port Security

Drafted under the auspices of the FAO, the Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated (IUU) Fishing (PSMA)⁹¹ is the first binding international treaty designed specifically to combat IUU fishing. Its objective is to prevent, deter,

^{86.} Id. at 42.

^{87.} Juan Delgado, Argentina Requests International Arrest Warrant for Chinese Vessel, DIÁLOGO, Apr. 12, 2019, https://dialogo-americas.com/articles/argentina-requests-international-arrest-warrant-for-chinese-vessel/.

^{88.} Request for Advisory Opinion, supra note 84, at 43.

^{89.} Id. at 64.

^{90.} See supra notes 70-72 and accompanying text.

^{91.} Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing, *opened for signature* Nov. 22, 2009, 55 INTERNATIONAL LEGAL MATERIALS 1159 (2016) (entered into force June 5, 2016) [hereinafter Agreement on Port State Measures].

and eliminate IUU fishing by preventing vessels engaged in IUU fishing from using ports and landing their catches. It recognizes that "measures to combat IUU fishing should build on the primary responsibility of flag States and use all available jurisdiction in accordance with international law, including port State measures, coastal State measures, market-related measures, and measures to ensure that nationals do not support or engage in IUU fishing." There are currently sixty-five member States and the European Union, with its twenty-seven members. Within Asia, Bangladesh, Cambodia, Myanmar, the Philippines, Thailand, Vietnam, and Sri Lanka are parties. India has neither signed not ratified the PSMA as of this writing, nor publically provided a reason for not joining the treaty.

PSMA Article 3 directs (with limited exceptions) party States to apply the agreement's measures to foreign vessels seeking entry to their ports. ⁹⁵ This enables port entry authorizations and identification procedures and requirements, and the providing of any additionally needed information from foreign ships "to determine whether the vessel requesting entry into the port is engaged in IUU fishing." ⁹⁶ Importantly, once a State has "sufficient proof" that a vessel has "engaged in IUU fishing or related activities," the treaty requires coastal States to deny the vessel entry into its ports. ⁹⁷

As an alternative to denial of entry, the port State may allow entry "exclusively for the purpose of inspecting it [the vessel] and taking other appropriate actions in conformity with international law." If it does allow entry, it must "deny the vessel the use of its port services for landing, transshipping, packing, and processing of fish" if the vessel does not have a valid authorization from either its flag State or the relevant coastal State, or if there are reasonable grounds that the vessel was engaged in IUU fishing. In other words, for these vessels, PSMA signatories are empowered to carry out inspections and take necessary enforcement actions in accordance with flag State domestic laws.

^{92.} Id. pmbl. para. 3.

^{93.} Agreement on Port State Measures (PSMA), Parties to the PSMA, FAO, http://www.fao.org/port-state-measures/background/parties-psma/en/ (last visited Oct. 8, 2020).

^{94.} *Id*.

^{95.} Agreement on Port State Measures, supra note 91, art. 3.

^{96.} Id. art. 9(1).

^{97.} *Id.* art. 9(4). Entries into ports for reasons of *force majeure* and distress are excepted from this requirement. *See id.* art. 10.

^{98.} Id. art. 9(5).

^{99.} Id. art. 9(6).

^{100.} Id. art. 11(1).

PSMA Article 21 addresses the special requirements of developing States that lack the required port infrastructure and facilities to comply with PSMA measures through the provision of technical and financial assistance and other cooperative arrangements.¹⁰¹ This assistance includes training of inspectors and the development and enhancement of MCS capacity, to include access to the necessary technology and equipment.

F. Regional Institutions

India is a member of the three regional multilateral organizations outlined below that have a specific focus on IUU fishing. These organizations address IUU fishing as a non-traditional security threat and their purpose is to strengthen inter-State cooperation within the region.

The first organization is the Bay of Bengal Programme, an intergovernmental organization. ¹⁰² In addition to India, its members are Bangladesh, Sri Lanka, and the Maldives. Its function is to enhance cooperation among member States, non-member States, and regional organizations, and to provide technical and management advisory services for maintaining sustainable coastal fisheries development in the Bay of Bengal.

The second is the Indian Ocean Tuna Commission. ¹⁰³ This intergovernmental organization, composed of thirty-one States, manages tuna and tunalike species in the expansive Indian Ocean high seas area. It has a special focus on IUU fishing and maintains an IUU vessel database. It has an elaborate compliance infrastructure and provides special assistance to developing member States (and cooperating States) for capacity building to enhance compliance.

The third organization is the Indian Ocean Rim Association, which is a ministerial level intergovernmental organization. One of the organization's priorities has been addressing fisheries issues, principally as a threat to food security, livelihoods, and income generation. The organization has thirty-one member States and provides an appropriate platform for bolstering regional cooperation on IUU fishing. Still, its action plan for 2017 through 2021

^{101.} Id. art. 21.

^{102.} BAY OF BENGAL PROGRAMME, https://www.bobpigo.org/ (last visited Oct. 8, 2020).

^{103.} INDIAN OCEAN TUNA COMMISSION, https://iotc.org/ (last visited Oct. 8, 2020). 104. INDIAN OCEAN RIM ASSOCIATION, https://www.iora.int/en (last visited Oct. 8, 2020).

views IUU fishing only as a fisheries management issue. ¹⁰⁵ Accordingly, there is room to broaden the initiative to enhance maritime safety and improve maritime security by aligning domestic IUU fishing efforts with regional norms and institutions.

IV. CONCLUSION AND POLICY RECOMMENDATIONS

The article presented two major themes. First, it argues that the Indian government views on IUU fishing should be expanded to recognize that IUU fishing is not just a food security and economic security threat but a national security threat. Second, it argues that although India has a robust maritime legal and institutional infrastructure to address IUU fishing, this infrastructure can be strengthened through greater involvement with existing legal regimes and regional and international organizations. By so doing, it will avoid duplicating the efforts taken by other countries against common threats, while enhancing its role in these regimes and organizations, particularly those at the regional level.

Finally, this article concludes with the following specific recommendations. First, the Indian government should highlight incidents of IUU fishing more often in open sources, such as government websites and media reports, to increase public awareness. This approach should also include a wider sharing of data points on the volume of IUU fishing, countries engaged in the IUU fishing near the Indian EEZ, and the impact of IUU fishing on India's GDP. Similarly, India's maritime security enforcement institutions need to widely disseminate information on foreign vessels present in the EEZ and to provide a list of suspected IUU vessels denied port access or privileges. Databases containing this information can assist the government in its policymaking at both the domestic and global levels and inform scholars' and practitioners' understanding of the nature and impact of IUU fishing.

Second, the Indian government should use its position in the Indian Ocean and its membership in regional organizations to generate active and continuous support for combating IUU fishing as a regional security threat. India has augmented the maritime domain awareness information available to smaller nations by using naval assets to conduct patrols of waters adjacent to the Seychelles and Mauritius. At the regional level, however, the focus is

still on IUU fishing as impacting food and economic security, not as a national security threat.

Third, India should become a party to the PSMA. Becoming a State party to the PSMA would provide several benefits, including implementing measures to ensure better detection and investigation of IUU fishing activities and capacity building of developing States to enhance cooperation in addressing this common threat. Membership would support and complement efforts to address IUU fishing, both globally and in the Indian Ocean region, including within the Indian EEZ.

Fisheries form the core of India's blue economy, which encompasses a myriad of economic opportunities such as maritime transport, renewable energy, waste management, and tourism. Fishing provides food and nutritional security, a livelihood to millions, and trade opportunities, all of which are threatened by IUU fishing. Addressing the challenge of IUU fishing and ensuring sustainable fisheries practices are crucial elements of the U.N.'s Sustainable Developmental Goals. Moreover, several studies highlight that the Indian Ocean's resources have the potential to sustain an increased production of fisheries. But that potential can create a perverse incentive. Distant water fishing fleets are a growing reality. Despite international efforts to curb IUU fishing, these fleets have largely evaded national and international regulatory approaches. The South China Sea, Western Pacific, and Atlantic Ocean littorals have long faced the threats of IUU fishing; now, there is a growing threat in the Indian Ocean. For India, IUU fishing needs to become an integral part of the national security discourse.

^{106.} Blue Economy Crucial for India's Economic Development: Union Shipping Minister Nitin Gadkari, FINANCIAL EXPRESS, Nov. 27, 2018, https://www.financialexpress.com/economy/blue-economy-crucial-for-indias-economic-development-union-shipping-minister-nitin-gadkari/1395773/.

^{107.} Sustainable Development Goals, UNITED NATIONS DEVELOPMENT PROGRAMME, https://www.undp.org/content/undp/en/home/sustainable-development-goals.html (last visited Oct. 8, 2020) (noting that Life Below Water is goal 14).

^{108.} See, e.g., Hamant Maini & Lipi Budhraja, Ocean-Based Blue Economy: An Insight into the SAGAR as the Last Growth Frontier, NITI AAYOG, https://niti.gov.in/writere-addata/files/document_publication/Indian%20Ocean%20Region_v6(1).pdf (last visited Oct. 8, 2020).