Marine Policy 81 (2017) 293–300

Contents lists available at ScienceDirect

Marine Policy

journal homepage: www.elsevier.com/locate/marpol

Potential ecological and social benefits of a moratorium on transshipment on the high seas

Christopher Ewell[a,*], Sarika Cullis-Suzuki[b], Mikaela Ediger[c], John Hocevar[d], Dana Miller[e], Jennifer Jacquet[a]

[a] Department of Environmental Studies, New York University, 285 Mercer Street 10th floor, New York, NY 10003, United States
[b] Ocean Networks Canada, University of Victoria, Victoria, BC, Canada V8W 2Y2
[c] New York University School of Law, 139 MacDougal Street, 3rd floor, New York, NY 10012, United States
[d] Greenpeace, 702 H St. NW, Ste. 300, Washington, DC 20001, United States
[e] Oceana, Gran Via 59, 9th Floor, 28013 Madrid, Spain

ARTICLE INFO

Keywords:
High seas
Human rights
IUU fishing
Organized crime
Overfishing
Slavery at sea

ABSTRACT

One way that illegal, unreported, and unregulated (IUU) fish catch is laundered into the seafood market is through transshipments at-sea. This practice, which often occurs on the high seas (the areas of ocean beyond national jurisdiction), allows vessels fishing illegally to evade most monitoring and enforcement measures, offload their cargo, and resume fishing without returning to port. At the same time, transshipment at-sea can facilitate trafficking and exploitation of workers who are trapped and abused on fishing vessels. This study gives an overview of high seas transshipment as well as evaluates transshipment at-sea regulations across 17 Regional Fisheries Management Organizations (RFMOs), which are responsible for regulating fisheries on the high seas. Transshipment at-sea regulations have become increasingly strict in most RFMOs since the late 1990s. However, only five RFMOs have mandated a partial ban, and only a single RFMO, the South East Atlantic Fisheries Organization (SEAFO), has mandated a total ban on transshipment at-sea. A total ban on transshipment at-sea across all RFMOs would support the ability of oversight and enforcement agencies to detect and prevent IUU fishing and also likely reduce human trafficking and forced labor on the high seas.

1. Introduction

As coastal waters have been increasingly overexploited and global catch per unit fishing effort has decreased, fishing vessels have traveled further offshore and into areas beyond national jurisdiction, also known as the high seas, to capture fish [1,2]. Traveling to distant waters is costly, however, and the distant water fishing industry is kept afloat financially by various cost-reduction measures, including government-sponsored capacity-enhancing subsidies (especially fuel subsidies) [3], the use of forced labor [2], and by transshipments at-sea [4,5].

The United Nations Food and Agriculture Organization (FAO) defines transshipment as the "act of transferring the catch from one fishing vessel to either another fishing vessel or to a vessel used solely for the carriage of cargo" [6]. This practice of a fishing boat offloading its catch at sea and often restocking its supplies is common within many fishing industries, especially those fishing in distant waters. Transshipments at-sea allow these vessels to sell fish – both legally and illegally caught – to refrigerated vessels, which carry the catches to port and assist in the laundering of illegally caught fish [7,8]. Transshipment at-sea is defended as economical as it allows fishing vessels to cut down on operational costs because a single cargo vessel can land the catch of several fishing vessels at port [9]. The efficiency in fuel use is also argued as an advantage of transshipment. But there are several notable disadvantages as well.

Illegal, unreported, and unregulated (IUU) fishing is among the most important factors contributing to fisheries overexploitation, and annual global losses to illegal and unreported fishing are valued at between US $10 billion and US $23.5 billion [10]. Transshipment allows fishing vessels to be resupplied without ever returning to port, thus evading monitoring and enforcement, and staying at sea for months, or even years at a time (Fig. 1). A study that identified potential transshipments at-sea via satellites showed that transshipments were more common in ocean regions with higher IUU fishing estimates [4,10].

Transshipment at-sea also likely facilitates human trafficking, forced labor, and other human rights abuses because it allows fishing boats to stay out at sea and avoid enforcement and civil society. Forced labor is another way to reduce fishing costs [2,11] and has been

* Corresponding author.
E-mail address: cme305@nyu.edu (C. Ewell).

http://dx.doi.org/10.1016/j.marpol.2017.04.004
Received 29 January 2017; Received in revised form 6 April 2017; Accepted 7 April 2017
Available online 15 April 2017

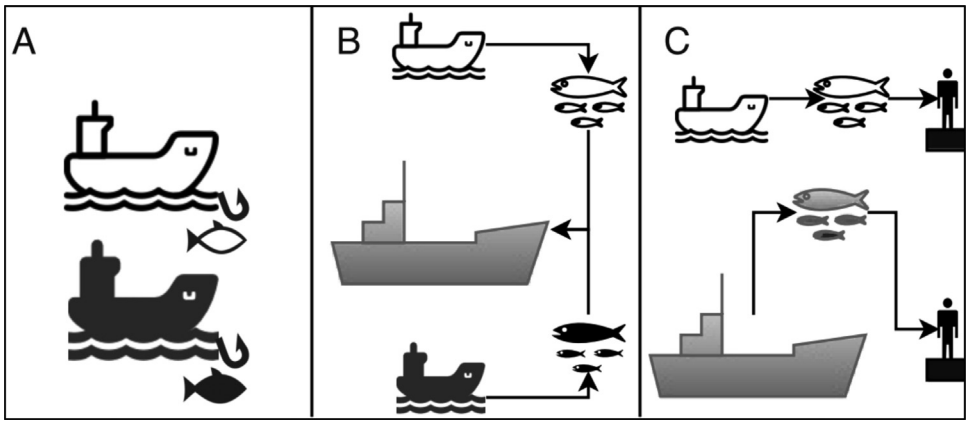

Fig. 1. Transshipment at-sea in the Seafood Supply Chain. (A) Legal (white) vessels and illegal (gray) vessels fishing on the high seas can (B) transship their catch to a (light gray) refrigerated cargo vessel and be refueled and resupplied, allowing them to stay at sea without returning to port. Legal and illegal catch are mixed aboard the cargo vessel, which then returns to offload at port along with legal fishing vessels (C), at which point inspection agents can no longer identify whether landed fish was legally or illegally caught. Illegal vessels can thus avoid returning to port for months or years at a time, and illegal fish is laundered into the seafood supply chain.

uncovered in recent years as unsettlingly common within the fishing industry [12–14]. Workers are largely recruited by manning agencies in developing countries, where they are made false promises of compensation, asked to pay "agency fees" later used as justification for indentured servitude, robbed of their documents, and sold into conditions that constitute slavery [12,15]. These fishermen are drastically underpaid or unpaid, and often held captive at sea for several years as fishing vessels receive supplies of food and fuel via transshipments at-sea [12,15]. Transshipments at-sea have also been linked to other forms of organized crime such as drug, weapon, and other wildlife trafficking [7]. Illicit practices during transshipments at-sea have been documented in the Indian Ocean [16], in the Atlantic off West Africa [15], in the Western Pacific, and in waters around Southeast Asia [17].

Many species groups are transshipped, including highly valuable fish [18]. For example, the tuna industry is heavily involved with at-sea transshipment practices [19], likely due to the logistics of fishing for highly migratory fish. Russian pollock, crab, and salmon have also been linked to high levels of IUU fishing [20]. Transshipments are poorly monitored in Russian waters and in the Bering Sea. Legal shipments of pollock and salmon have been documented to be mixed with illegal catch during high seas transshipments before being processed in China and shipped to the United States [20]. Wild shrimp in southeast Asia is also often purchased at sea and transshipped onto vessels destined for Thailand and China, where it is processed [20].

The United Nations Convention on the Law of the Sea (UNCLOS) gave coastal nations exclusive rights to exploit and manage fisheries resources beyond their territorial waters up to 200 nautical miles (nm) off their coasts, known as Exclusive Economic Zones (EEZs) [21]. Thailand has, for instance, temporarily banned transshipment in its territorial waters and mandated Thai vessels return to port within 30 days of being at sea [22,23], while Indonesia has implemented a permanent ban on transshipment at-sea for Indonesian vessels [24]. However, national authority does not extend to the high seas, which represent around two-thirds of the ocean.

In the face of overexploitation on the high seas, the United Nations Fish Stocks Agreement (UNFSA) [25] charged Regional Fisheries Management Organizations (RFMOs), international fishing bodies comprised mostly of fishing countries and highly influenced by industry stakeholders, with the role of managing fisheries on the high seas [26]. Although most transshipments at-sea occur within EEZs, an estimated 40% of transshipments occur on the high seas, outside of the jurisdiction of national authorities, and in RFMO-managed waters [4,5]. This paper focuses exclusively on those transshipments at-sea occurring on the high seas, where RFMOs are charged with fisheries management.

Broadly, the mandate of an RFMO can vary from managing fishing for highly migratory species across large areas (commonly known as a "tuna-RFMO"), to managing several species in a particular region. The geographic size and the number of species managed differs greatly between RFMOs. Geographically, there is considerable overlap between RFMO boundaries. The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) stands apart from other RFMOs as an international conservation treaty under the Antarctic Treaty System, although it also oversees fishing in the region [27]. This study focused on the 17 RFMOs (including CCAMLR) that govern areas of the high seas (see Table 1 for acronyms and full names). RFMOs differ from the larger group of regional fishery bodies (RFBs) by their enforceable management mandates that include binding legislation over members. The legal powers of RFMOs are dependent upon the measures and mandates decided by member states and vary in strength between RFMOs, but often include provisions such as preventing suspected illegal vessels from entering ports, landing cargo, or transshipping with member vessels [28].

Despite such binding measures, it is the flag state –the vessel's country of registry— that bears sole responsibility for enforcement on the high seas. Foreign powers are generally prohibited from boarding another state's vessels, seizing cargo, or arresting crewmembers [28], although certain RFMOs have included high seas boarding schemes in their provisions [29]. Some flag states are notorious for loose enforcement and a lack of oversight for fishing vessels. Often, vessel owners or operators may register their vessels under the flags of these countries despite having no affiliation to the flag state through nationality or other associations. These flags are commonly known as Flags of Convenience (FOC), but have also been referred to as Flags of Non-Compliance (FONC) [30]. Vessels flying these flags have been associated with IUU fishing practices [30], maltreatment of crew [31], and pollution of the marine environment [31,32].

Previous work has shown RFMOs have failed to fulfill their mandates to conserve fish and monitor and enforce legislation. Cullis-Suzuki and Pauly [33] evaluated the performance of 14 RFMOs in regards to the status of the fish populations for which each organization was responsible. They determined that roughly 67% of managed populations were depleted or overfished, and that fish biomasses had been largely declining, with some exceptions, since 1950 [33]. An updated evaluation found similar results, with three-quarters of high seas fish populations in poor condition [34]. Similarly, a performance assessment of by-catch and discard governance measures across RFMOs concluded that RFMOs have been largely ineffective in managing by-catch [35]. This was partially attributed to inadequate observer coverage: over two thirds of RFMOs employ only 60% of the surveillance methods needed to ensure compliance with by-catch measures, although the by-catch measures themselves were also found to be inadequate.