Corruption can lead to failures in the achievement of management goals and so it is therefore important to identify where it exists and how it might be eliminated. Here we explore corruption at different stages of fisheries management, illustrated with case studies, and compile several suggestions on how to mitigate fisheries corruption.

2. Corruption and fisheries

There are ample opportunities for corrupt practices to take place in fisheries. Corruption begins in institutions and eventually trickles down to the water. Corruption on the water is rampant in part due to the vastness and visual impermeability of the medium. It is difficult for enforcement efforts to locate fisheries corruption in the far reaches of the five oceans. But corruption in fisheries, just as in any other commodity, can occur through the entire chain of custody and this chapter explores corruption at each of these stages from the time a fish or invertebrate is taken from the water to the time it reaches a mouth.

Corruption occurs at the international level through bribery; the negotiation of access agreements between rich and poor countries, and by countries failing to meet their obligations under international agreements. Similarly, corruption occurs at the national and regional levels of fisheries management usually through statistical malpractices and officials accepting bribes. Processors, distributors and retailers are known to engage in corrupt practices through corrupt labor practices; and the renaming and mislabeling of fish and fish products in order to beat the law. Finally, fishers themselves engage in corrupt practices by fishing in excess of quotas due to (i) illegal, unreported and unregulated (IUU) fishing; (ii) discards; (iii) high grading; (iv) smuggling; (v) transshipments; (vi) mislabeling; (vii) piracy; and (viii) harass observers.

Internationally, the importance of non-compliance in fisheries was highlighted in 2001 with the endorsement of the International Plan of Action (IPOA) to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated (IUU) Fishing. Illegal fishing is widespread globally as depicted in Figure 1a below. Globally, IUU catches were an estimated 16 million tonnes in 2002 (roughly 20% of global catch) valued between US\$2.4 and \$9.5 billion (MRAG 2005). IUU fishing can lead to the collapse of fishery or impede efforts to rebuild depleted stocks (FAO 2001). Other types of corruption beyond exceeding quotas also exist in fisheries. Institutions facilitate illegal fishing, which undermines the management of the resource.

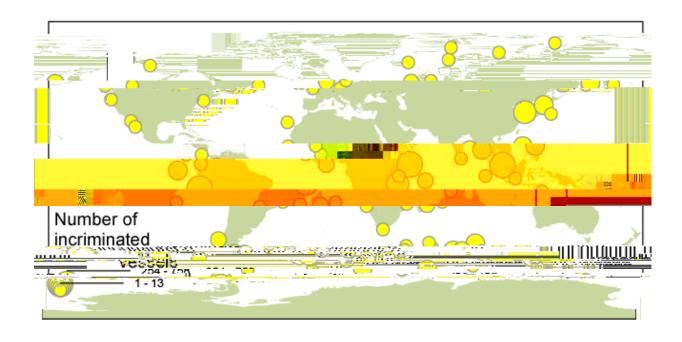


Figure 1a: A map of global illegal fishing incidence (Sumaila et al., 2006).

2.1 In the Global Arena: Institutional Corruption at the International Level

Corruption in fisheries can be a particular challenge at the international level, where the likelihood of misallocation of resources is much greater than the national level. One widely published case of corruption at the international level involved the International Whaling Commission (IWC), which was established to sustainably manage and conserve whales. In 2001, Japan admitted to bribing poor nations to support its pro-whaling stance at the IWC (Joyce 2001). The previous year, Dominica's environment minister resigned in protest because six Caribbean nations voted with Japan on almost every issue, including blocking a proposed whale sanctuary in the South Pacific (Joyce 2001). More recently, the fisheries chief in the Solomon Islands accused Japan of bribes in the form of large aid packages in exchange for support at the IWC and cheap access to tuna fisheries (ABC 2005).

Access agreements between fishing nations can also be corrupt (Ilnyckyj 2007). The negotiation of access agreements is almost never transparent. The secrecy leads to unfair distribution of fisheries resources. The Department of Fisheries in the EU oversees access agreements between EU nations and other regions of the world. One of their roles is in exporting overcapacity from the North to the South, which not only threatens food security, but also undermines developing world economies due to the fact that payments to access foreign waters greatly undervalue the resource. This is particularly true in West Africa (Kaczynski & Fluharty 2002). EU fleets fishing for tuna in West African waters will not accept West African observers onboard, do not visit local ports, and do not accept local crew members (Kaczynski & Fluharty 2002). Even though access agreements between other developed countries (e.g., the U.S.) and other developing

countries (e.g., the Pacific Island States) in not much in the news in the regard, these are most likely not corrupt-free agreements.

2.2 In the capitol: institutional corruption in domestic fisheries

Though the impacts of corruption occur most directly on the water, weak or corrupt international or national institutions often facilitate it. "Governmental corruption in natural resource management, where the state may be perceived as gatekeeper of such resources not so much for the public good but for selfish interests of a few, further erodes local incentives for resource stewardship" (Young 2001 p. 300).

Shortfalls in governance over public goods at the national level can also affect national goals to relieve poverty and achieve national economic growth (Milledge et al. 2007). Often, fisheries legislation is adequate or even good but not enforced (Atta-Mills et al. 2004). Ghana, for instance, requires foreign companies operating in its waters to sell their catch in Ghana. However, it does not enforce this (Atta-Mills et al. 2004).

Enforcement might also be undermined by corruption in higher political ranks. In 2001, for instance, the Galapagos National Park caught the *San Mateo*, an Ecuadorian long-liner suspected of illegally fishing for sharks within the Galapagos Marine Reserve. The *San Mateo* captain's lawyer happened to be having lunch with Admiral Vega, the high admiral of the Ecuadorian Merchant Marines, at the time of capture. Admiral Vega then ordered the Ecuadorian Navy officers from the Galapagos to release the vessel from custody and inspection. Corruption within the Ecuadorian Naval Command undermines the laws that govern the Galapagos Marine Reserve, a World Heritage Site.

Fisheries corruption at the national level also manifests itself in Flags of Convenience (FOCs), which allow operators to avoid restrictions in their own countries. More than 1200 industrial fishing vessels fly flags of convenience and more than 1400 large-scale fishing vessels operate under unknown flags. According to the International Transport Workers' Federation, Liberia supports the greatest number of foreign vessels with their flag. Even the world's largest landlocked country, Mongolia, now provides their flag for hundreds of ships at sea (Brooke 2004).

FOCs provide cover for all sorts of illegal activity, including drug and missile trafficking to illegal fishing (Bradsher 2006). Fishing boats with FOCs avoid taxes, pay low wages, and follow bad labor practices, ranging from poor living conditions to abandoning sailors in distant ports when it is no longer cost effective to fish (Working 1999). ICCAT estimates 10% of tuna is caught illegally by vessels flying flags of convenience. Vessels flying FOCs land their catches in national ports with relaxed import regulations (Gianni & Simpson 2005).

Bribery is another form of prevalent corruption at the national level. In one South African case, 18 fishery officers were convicted due to a paper trail that uncovered bribes (Hauck & Kruse 2006). But most bribery cannot be traced and when it is uncovered it is often unpunished. A Korean captain in South African waters was caught trying to buy off an

observer (after the observer had taped illegal fishing activity, including shark finning) and then threatening him. The national judicial system then released the captain with a light fine¹.

Corruption can also occur in national statistics. A case of fisheries statistical malpractice was uncovered when Watson and Pauly's (2001) predictive fisheries models could not explain reported catch trends of several countries, including China. Corrections for the Chinese fisheries data showed that world fish catches were not increasing but, in fact, declining (Watson & Pauly 2001). In addition, despite growing concern for global shark populations, China has allowed frozen shark fins to be reported as shark meat since 2001. Since then, shark fin imports have fallen by half though demand for shark fin soup continues to grow (Raloff 2006).

2.3 Corruption in fish processing and distribution

Middlemen in fisheries processing are also guilty of corruption, particularly in regards to working conditions. Shrimp processors, perhaps in part due to the scale of industry, are among the most notorious for sub-standard labor conditions, ranging from illegally low wages and long hours to physical violence and sexual assault, to which national governments appear to be privy (EJF 2003). Labor abuses are widespread throughout the Thai fishing and seafood processing sectors. Child labor, excessive work hours, and forced labor are the norm in Thai seafood processing plants.²

Shrimp is particularly notorious. It is likely that more children work in the shrimp industry than any other (Delap & Lugg 1999). According to one fisherman in the Philippines³, "The shrimp live better than we do. They have electricity, but we don't. They have clean water, but we don't. The shrimp have lots of food, but we are hungry." Workers and protesters have been murdered in shrimp industry-related violence in at least eleven tropical countries⁴. In Bangladesh specifically, more than 150 people have been killed in shrimp-related disputes since the 1980s (EJF 2003).

The corrupt practice of mislabeling and renaming of seafood, particularly by distributors and final seafood retailers, is also rampant (for an overview see Jacquet and Pauly, in press). One-third of all seafood in the U.S. is mislabeled as another species (Tennyson et al. 1997). After a campaign in Europe to raise awareness about the negative effects of farm-raised shrimp, Thai shrimp processors began exporting farm-raised shrimp as 'wild'. After EU tariffs were put on Thai shrimp, producers sent Thai shrimp to Malaysia for processing where it became a Malaysian product (Miller 1999).

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¹ http://www.panda.org.za/article.php?id=391.

² "The Mekong Challenge: Underpaid, Overworked and Overlooked, the realities of young migrant workers in Thailand (Volume 1)," Mekong Sub-regional Project to Combat Trafficking in Children and Women, Bangkok, International Labour Office, 2006.

³ Cited in (EJF 2003).

⁴ Honduras, Ecuador, Brazil, India, Bangladesh, Thailand, Vietnam, Indonesia, and the Philippines.

Middlemen also mislabel their fish as sustainably caught. A grocery store in Seattle, Washington was caught mislabeling between 4 and 5 percent of its fish with "EcoFish" labels, which indicate the seafood had been harvested in environmentally responsible manner (Denn 2003). Corruption in terms of traceability subverts market-based sustainable seafood campaigns, contributes to the further degradation of fisheries resources, and can even have adverse affects on human health (Jacquet & Pauly 2008).

2.4 On the water: corruption and fishers

The corruption with the highest impacts on fisheries resources often occurs on the water (though corruption at institutional levels might have facilitated it). Fishers exceed quotas, discard untold quantities of fish, 'high grade', mislabel their catch, and transship it at sea. They have also been caught harassing observers onboard to prevent the aforementioned offences. Fishers choose to comply with regulations mostly based on monetary incentives (Hatcher et al. 2000).

In 1999, an estimated 80 percent of Patagonian toothfish sold were illegally caught. There were an estimated 90 vessels implicated in this unregulated fishery (Agnew 2000). Economic gains and low risks of being caught motivate fishers to fish illegally. At \$24/kg the economic incentives favored fishing for toothfish, regardless of the chance of being caught (which, as it turns out, is incredibly small). A review of IUU cases from 1979-1993 assumed patrol coverage of the high seas of 5% (Sumaila et al. 2006), which is judged to be much higher than the patrol coverage in the real world. And yet, when the Uruguayan flagged *Viarsa* was suspected of illegally fishing for Patagonian toothfish in Australian waters in 2003, Uruguayan government officials came to its assistance (Knecht 2006).

High grading and/or discarding untold quantities of fish are other types of corruption that frequently occur at the fisher level. These activities ensure the selection of only the best fish for use in meeting an official quota. Nearly one-quarter of all fish caught by U.S. fisheries are discarded, fish protein wasted at sea (Harrington et al. 2005). Fishers also frequently catch juvenile fish and, rather than release them, use them as bait. This happened in the 1980s, when fishers in Florida illegally cut up undersized Red grouper, which they called 'maggots' and used them for bait (Nohlgren & Tomalin 2006).

Smuggling is another problem common among fishers. The notorious fisherman Arnold Bengis was caught smuggling 2 tonnes of illegally caught Patagonian toothfish into the U.S. beneath a thin layer of crayfish (NET 2004). In South Africa, he was found guilty of illegal harvesting of rock lobster and other fish, such as Patagonian toothfish, from 1987-2001. His company had also bribed 18 South African fisheries officers (Hauck & Kruse 2006).

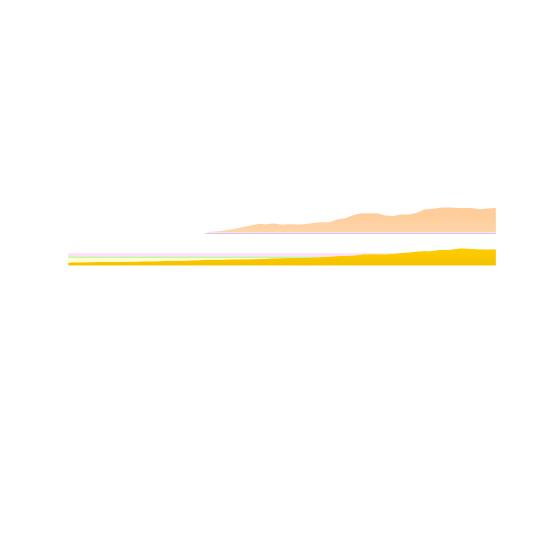
Renaming and mislabeling also occurs at the fisher level. When English fishers exceed their cod quota, they label their cod as 'ling' to pass it through customs (Clover 2006).

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relatively new management regimes to deal with the problem of overfishing. By trying to compensate for the shortage, corruption actually exacerbates it.

There are several indications corruption in fisheries is on the rise. The number of fishing vessels flying flags of convenience, for instance, has increased drastically from the early 1990s (Gianni & Simpson 2005). The increase in the number of attacks on U.S. fisheries observers (Figure 1), while perhaps a partial result of a greater number of observers, is also an indicator of increased corruption.

Lax seafood testing assists corruption in traceability. While the European Union tests 20-50% of its seafood in any given year, the U.S. is much more relaxed. In 2006, the U.S.



We know that high fines deter illegal fishing (Agnew 2000), though we know that moral obligations and social influence also deters illegal behavior (Supine & Kieran 1999) Still, fines are too low as is the risk of getting caught (Sumaila et al. 2006). In a case of two poachers indicted for illegally harvesting American sturgeon caviar (and selling it as imported Russian caviar), the fines totaled US\$17,375—less than 1% of the estimated US\$2 million the pair made on the sale (Cohen 1997). In a review of cases of IUU fishing, calculations show that fines must be increased 24 times to deter illegal fishing (Sumaila et al. 2006). Furthermore, the question remains as to how to monitor areas outside national jurisdiction?

One way is to include fishers in decisions and strengthen local participation in management. Fishers are the most creative at circumnavigating fisheries laws and must be drawn into all processes of management to minimize corruption incentives (Raakjaer-Nielsen & Mathiesen 2003). Through their involvement, it is hoped that voluntary compliance will improve. As will be discussed in [Van Santen, this issue], it has been shown that the implementation of individual quotas or catch rights have motivated fishers

We propose CIFER: A Corruption Index of Fisheries Enforcement and Regulations. This database could be a merger of much of the information that already exists on the web. Several groups already monitor national behavior to a large extent: e.g., TRAFFIC (a wildlife trade monitoring network set up in 1976), the International Transport Workers' Federation (monitors Flags of Convenience), the *Sea Around Us* Project (monitors country's compliance with the FAO Code of Conduct). Using this information combined and available reports on access agreements and other instances of corrupt behavior, CIFER could rank countries according to their national fisheries performance in the same way Transparency International does.

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