After the Fact | Impacts of Illegal Fishing
Originally aired November 28, 2017

Total runtime: 00:18:37

TRANSCRIPT

Sandy Davies, Stop Illegal Fishing and Fish-I Africa: We often hear about 1 in 5 fish being caught illegally. I must say around Africa we consider it to probably be much higher.

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Dan LeDuc, host: That's Sandy Davies. She works for an organization called Fish-i Africa that is combating illegal fishing. It's a serious problem around the globe—up to 1 in 5 of the fish taken from the seas happens illegally. It's even worse in some waters off the African coast. That's having a devastating impact on the ocean—and on the livelihoods of responsible fishermen. Sandy, who is in Botswana, joins us in a few minutes. But first we'll learn from Peter Horn about what is called IUU fishing—that's fishing that's illegal, unreported, or unregulated. Peter is on the line from London, where he works for Pew, helping with satellite monitoring of ocean waters, on the lookout for illicit fishing boats.

Our data point for this episode is that up to 1 in 5 fish who make it to market have been caught illegally. I mean, that's 20 percent of what's on the market today. It sounds like a lot. So what's the full extent of the problem?

Peter Horn, officer, The Pew Charitable Trusts: The numbers are vast, as you say, and so sometimes it's quite hard to comprehend actually what they mean. And the last comprehensive global assessment of the scale of illegal fishing suggested that up to 1 in 5 wild caught fish were caught through IUU fishing. And this had a global cost of up to $23.5 billion per year. I mean, if I break it down a little bit more, if you think about the quantity of fish that's coming out of the water, and that works out to around about 26 million metric tons taken annually illegally, and that equates to a little over 800 kilograms of wild-caught fish every second. Now, with 90 percent of the world's fisheries assessed by scientists as being either fully exploited or over-exploited, there's a risk that their advice to governments will be inaccurate and the catch quota set too high, and there'll be huge consequences for the fish stocks that are being managed.

Dan LeDuc: Well, let's break down what you've been telling us, which are fascinating and, actually, sort of pretty frightening statistics. Let's start with the health of the oceans. They are

not in great shape. Maybe people are growing slowly aware that our oceans are over-fished. They have pollution problems and other concerns. By removing the fish like this—you made the point—it's hard to manage fish stocks. So taking lots of fish out of the ocean, how does that actually translate into the environmental impact on the oceans as we know them?

Peter Horn: As the more developed fishing nations look further and further for their fish, they can wittingly or unwittingly destabilize the livelihoods of these subsistence fishermen. And that's going to have obvious ramifications for the local food, economic, and societal stability and security. Now, we know about the societal impact of a collapsed fishery industry. But obviously, the impact is terrible not just for humans, but also for the fish. And you also think about the target species, because sharks and tuna are known as apex predators. They're iconic. And it is these fish that are often targeted by IUU fishers because of their potential commercial value. But these same fish are absolutely essential for the sustainability of maritime ecosystems and the healthy ocean fish stocks. And so by targeting these species, we're having a disproportionate impact on the fishery ecosystems.

Dan LeDuc: This whole problem is gaining literally international attention in the last few years. What's being done to stop it? How do we take this on?

Peter Horn: Well, obviously it's a challenge. And just thinking practically, we have around about 378 million square kilometers of ocean. And the average IUU fishing vessel probably has a surface area of around about 200 meters square. And so it's pretty much like finding needles in a very large haystack or—as somebody once said to me—it's like finding a grain of sand in Central Park.

Now the thing is you can find those needles. You can find the grain of sand. You've just got to know how to look. And you need to approach it systematically. And I'd say, you know, traditionally nations have been using manned vessels and aircraft to patrol their waters. And each of these have got limitations because they can only see as far as their radars or their eyes can see. And it's very expensive. And if you don't target them correctly, it's pretty inefficient. So today we can use technology to help us.

Pew's ending illegal fishing project has been working on developing a system called "Oversea Ocean Monitor." And this is a tool which we've developed in conjunction with the U.K.-based Satellite Applications Catapult, which is a not-for-profit agency, which is set up by the British government to bring together science and ideas. And the concept behind this was sort of saying, "How do we develop a system which can exploit this satellite technology, but which can be made available to the countries who would not traditionally be able to afford or access it?" It presents it to professional analysts who use cross-reference positional information such as

satellite-tracking data. You may have heard of Automatic Identification System, AIS, or Vessel Monitoring Systems. And they cross-check that with their comprehensive databases. But it also allows us to layer information and help us make an assessment of where IUU fishing is most likely to be occurring. We can understand what the environmental data is telling us. And we can look at the positional data from the vessels, which we can track anywhere in the world.

Dan LeDuc: What you're describing, like AIS, this Automatic Identification System, that's actually sort of like a transponder that's on all fishing vessels. And that sort of lets the satellite know where they are. These aren't, like, satellites that are watching pictures of actual boats on the water. These are almost a little bit more like we think of radar, I guess, right? Dots on a screen?

Peter Horn: Well it's a little more complicated than that, as you'd expect, because we use algorithms to look at the vessel tracks. And it then sort of makes an assessment of whether the track has characteristics that one would expect of a fishing vessel. And by that I mean that when it's doing some activity, say, like, longlining, purse seining, trawling or transshipment, it will have a certain track that it will be following over the ocean. But of course it would be inefficient for a human to be looking at that line and what we've done is we've had the team develop machine-learning algorithms which can do that.

But of course technology in and of itself is not the silver bullet. So being able to track is only part of the equation. What I think the technology does is it helps provide the data, provide the evidence on which further questions can be asked. And at that stage, the prosecutions can be made. And so you're part of the process. And so there were some fairly famous examples in recent years with both the fishing vessel Thunder and the fishing vessel Kunlun, where information has been provided, but lots of different people chipping in information, lots of people helping. And then Interpol and the appropriate authorities making sure that they took the effective action.

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Dan LeDuc: And now, Sandy Davies. She joined us via Skype from Botswana, where she works with a number of African nations as a coordinator on Fish-i Africa. She tells us what that is, and why it matters.

Sandy Davies: I actually started out myself as an observer in the south Atlantic, but I came to Africa about 20 years ago to Nigeria. And initially I was working more in fisheries management, but I saw, increasingly, cases of—however good the management was—that illegal fishing was just undermining these systems. And the communities that should be benefiting from fisheries

were suffering. I mean, a few examples of what changed my focus to illegal fishing was, I remember seeing the blast fishing in Tanzania. This is when, instead of fishing with nets and with hooks, bombs and dynamite is thrown into the sea. And it kills the fish and many sink to the bottom and are lost, but others float to the surface. And it's an extremely destructive fishing method, and I must say today we're seeing the consequences of that in the communities and the habitat.

Dan LeDuc: So illegal fishing, we should be clear, is operating at such a broad scope that it is affecting how we actually manage the fisheries of the world's oceans, right? I mean, the numbers are so large that as scientists and regulators try to make sure we manage what we take from the sea and make sure we're doing it in a sustainable way that what's going on illegally is throwing off all the numbers.

Sandy Davies: Yes, absolutely. And I think there's various estimates. We often hear about 1 in 5 fish being caught illegally. I must say, around Africa we consider it to probably be much higher. We consider it to be perhaps as much as half of the fish is caught illegally. And one of the problems with this, Dan, is that it's uncontrolled and it's unseen. This is why the estimates are so unclear.

Dan LeDuc: As many as half, that's an astonishing number. How do you get at that number?

Sandy Davies: I think the reason why is because we've expanded the concept from illegal fishing. What we're seeing in this global trend is that the whole operation is illegal. So sometimes the gear will be correct, but the vessel itself is not the vessel that it says it's called. It's using a false identity. We're seeing that the documents for the vessel are incorrect and inaccurate. And in some extreme cases we're seeing that there's trafficking of labor and crew are being used under extremely inhumane circumstances. So when we look at all of this together, it's illegal fisheries. It's the whole element of the fisheries, not just the catching.

Dan LeDuc: What we're talking about here is illegal fishing that's operating on a huge industrial scale. I mean it's wrong if someone's in a 30-foot boat and scoops up fish illegally, but where it's having real impact on people's livelihoods and on the environment, is at a much greater size, right?

Sandy Davies: Yes, the boats that we're dealing with here are very large boats, often coming from Asia or Europe. They're called distant water fishing boats. And they're coming to catch some of the large pelagic species like the tunas, or sometimes trawling on the bottom, and they scoop up, yes, 20 to 50 tons of fish in a day. And they freeze this and hold it in their holds or pack it for transshipment later.

Dan LeDuc: Let's talk for a moment about the economic impact at the very local level where local fishermen are really getting by to feed their families and to feed their communities. What's the impact on them when these big industrial ships come in?

Sandy Davies: Yes, it has been very destructive, and it's increasingly destructive. And one has to keep in mind that we're talking about communities that in themselves are growing. We've often got population increase in these coastal communities. But the impacts we're seeing is that as the industrial boats remove both fish and also destroy the habitats, that the local fishers, they're having to go out further to sea and often stay out at sea longer to catch the fish they need to feed their families.

Often they're coming in without enough fish. Whereas in the past they would leave perhaps very early in the morning and be in by midmorning, they will now have to stay out at sea until well into the afternoon. And we are talking here small canoes or dhows. There's a lot of problems with this. For example, the fish will often spoil. But the impact on this is not just to the fishers themselves. The way that the communities are structured is that, essentially as soon as the fish touches the beach, there will be usually women running up to the canoes and the dhows to buy the fish. And obviously if there's less fish coming ashore, this is disrupting the fabric of society and the way that women buy this fish and then they would take it and smoke it or salt it and sell it on into the market. So we really are seeing that the demise of the fishery resources into the hands of the small-scale communities is having quite a devastating impact, and of course this is reducing money for education. This is reducing money for any sort of local development, as well as fish for nutrition.

Dan LeDuc: You mentioned some progress in combating this problem. One thing that has been put in place is something called Fish-i Africa. You work with them through your organization. So tell us what that is.

Sandy Davies: Fish-i Africa is a very exciting and new initiative. But it really is demonstrating the power of fisheries inspectors in countries working together, and how, by cooperating with each other, they can make a difference to this. Well, it's eight countries and this is in the East Africa region. And the eight countries are Somalia, Kenya, Tanzania, Mozambique. Those are the mainland countries. And then we have four islands. That is the Comoros, Seychelles, Madagascar, and Mauritius. And these countries, they share the fishery in the ocean area of the western Indian Ocean. There are a lot of actually very, very good inspectors in Africa with very limited resources and they saw the need to be able to check information and ask about boats. And that is why they formed Fish-i.

Dan LeDuc: That's a pretty powerful example of countries coming together to solve a problem. How do they all work together on this issue?

Sandy Davies: So the way it works is that each of the countries has an—it's called an exclusive economic zone [EEZ]. It's like a patchwork of water that touches with their coastline. So you have this patchwork of areas that as such are under the jurisdiction, they're under the legal mandate of each country. And before Fish-i each country, they didn't know who was fishing in the next country. They didn't know who had licensed which boats. And as I said earlier, we're talking about foreign boats here, about 500 fishing boats that come to fish in this region. And they're often chasing the same fishery resource around in between these different EEZs, or zones, of the countries.

So what the fisheries inspectors do now is they—via communications tools on the internet and sometimes traditional telephones—they share lists of who they've licensed, of who they've inspected, and cross-check information. So, they look at where the boats say they are and follow them together. And they've turned up some incredibly interesting facts. And, I must say these countries in the last four or five years, they've worked on more than 35 individual cases. Many of those cases involve many boats. And this was not possible before.

Dan LeDuc: You signal some of the potential bad behavior in that. There have been stories about these rogue ships actually painting new names on the back of their vessels right out at sea—I mean changing their identities and trying to slip into new places.

Sandy Davies: Yeah, these methods have become very obvious now. And this is actually what Fish-i has seen. The vessels have copies of various certificates, various registrations or licenses, fishing licenses, and they do exactly that. They just paint a new name on the boat. And this planned and systematic illegality has been the big eye-opener for the countries. And we see now that we must tackle this in a different way.

Dan LeDuc: So what happens next? Is the idea that you try to make it so difficult for these illegal fishers that they give up and go away? What's the strategy for the endgame?

Sandy Davies: The strategy is that the bad operators will leave or they will stop operating illegally and operate legally. A good example of that is a case for a purse seiner called the Premier. This was a South Korean purse seiner that was actually illegally fishing in West Africa, and it was fined, and it didn't want to pay the fine. So it moved into the Indian Ocean, which is in East Africa. And because of the FISH-i task force, the inspectors were watching this boat and they were monitoring it with satellite monitoring. And when it approached Kenya to try to get a license to fish, Kenya was able to check their documents, and their certificates, and actually

even a letter saying that they had paid their fines in Liberia, and see that these were all forgeries. So what happened then was all of the Fish-i countries—they refused to let the vessel come in to their ports to offload the catch—and they also refused to let it continue to fish in their waters. So this vessel eventually had to leave and go back to Asia, and offload its catch elsewhere, which was really an incredibly united action.

Dan LeDuc: A success story.

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Dan LeDuc: The fight against illegal, unregulated and unreported fishing is going to require many more success stories before we can declare victory. If you're wondering what you can do, here's a final thought from Peter Horn.

Peter Horn: But I think that for the listeners, it's just taking a little bit of interest in the food that we actually get on our plate. And it's very common these days, certainly in the U.K., to understand the provenance of your meat and your vegetables. And I think we can do the same for our fish, because the systems and the technology and the desire is there for the suppliers to actually give us more information. And we just need to help prompt them to demand that, and expect a little bit more leadership, a little bit more political will. We can do something about it. We just need to take a little bit of interest in it.

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Dan LeDuc: Thanks for joining us. Pew also published an interactive video that shows how governments and organizations around the globe are working to tackle the problem of illegal fishing. You can find it, along with more resources, at pewtrusts.org/endillegalfishing.

Remember we're all about the data here, so give us some of our own: provide a review at Apple Podcasts or wherever you listen. For The Pew Charitable Trusts, I'm Dan LeDuc and this is "After the Fact."