Transparency at Sea
Satellite technology helps to curb illegal fishing

navama
technology for nature

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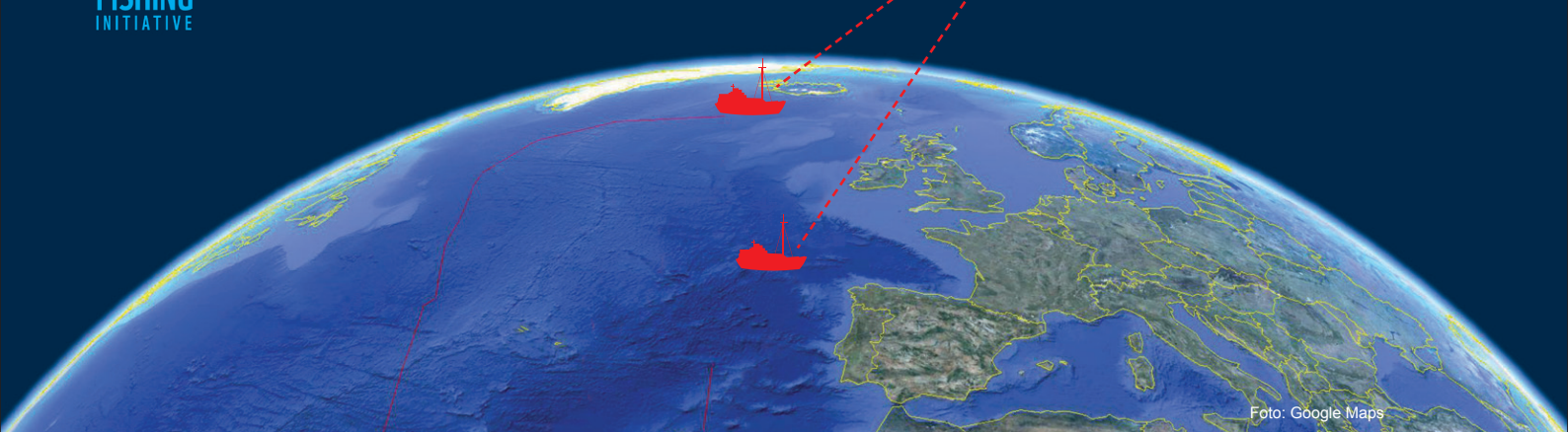
Action needed to improve fishing practices

Pirate fishing is a multi-billion dollar industry that endangers marine ecosystems, hurts law-abiding fishermen, and deceives honest retailers and well-meaning consumers alike. It continues because it is profitable. And it is profitable because pirate fishers find it so easy to bring their tainted goods into ports, across borders, and onto our store shelves and restaurant menus.

Good systems to monitor fishing activity and track fish catches are fundamental to the solutions we need. Fortunately, the technology exists today to make monitoring fisheries and tracking catches possible.

WWF is working to promote the use of a new and affordable way to use satellite data to monitor global fisheries, known as the Automatic Identification System (AIS).

WWF's new approach to combat illegal fishing - the AIS system

The Automatic Identification System is a communication system widely used in commercial shipping to help ships avoid collisions at sea. AIS relies on an open data standard that allows anyone with an AIS transceiver to send or receive AIS information. The AIS system is also an effective way to use satellite data to monitor global fisheries activities.

WWF evaluated AIS data, using a specific methodology developed by the Smart Fishing Initiative and its partner navama, and found out that it is possible to retrace the routes and activities of fishing vessels, including vessels that are suspected of illegal fishing.

Analyzing the data, WWF and navama are able to:

- Visualize routes of fishing vessels and recognize certain fishing activities.
- Notice if boundaries of marine protected areas, closed fish nursery habitats and areas reserved for artisanal small scale fisheries are respected.
- Create more transparency of fishing operations to improve sustainability of fisheries management.
- Locate harboring and potential transshipment positions.
- Detect whether the AIS device was turned off.

## WWF calls for satellite technology on all commercial fishing vessels

The AIS system was introduced by the International Maritime Organization (IMO) in 2000 for safety reasons but outside the European Union the installation of the AIS system is mandatory only for ships over 300 metric tonnes, but not for fishing vessels.

WWF urges national governments, Regional Fisheries Management Organisations (RFMOs) as well as states flagging fishing vessels operating on the high seas, to adopt as soon as possible mandatory installation of the AIS system on all commercial fishing vessels under their flag, or fishing in their national waters in addition to monitoring, control and surveillance (MCS) measures currently being used, such as Vessel Monitoring Systems (VMS).

WWF's pilot project for the use of AIS in the South Pacific

WWF cooperates with Sea Quest, a fishing company in Fiji in the South Pacific that agreed to install AIS transmitters on its long-line albacore tuna fishing vessels to demonstrate full transparency of the company´s fishing operations. Since June 2013, the AIS transmitters have been activated round-the-clock, constantly sending signals to the WWF database. WWF can retrace the routes and activities of Sea Quest's fishing vessels and ensure that boundaries of sensitive areas and no take zones are respected. The project shows that the use of satellite technology in the surveillance of fishing activities can be an efficient method to increase safety on fishing vessels and promote legal and transparent fishing operations.
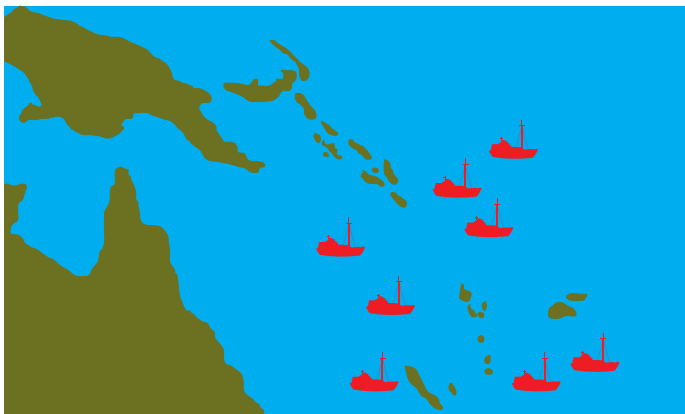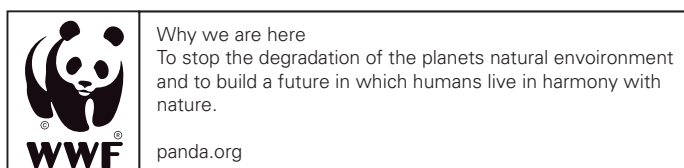

"With the AIS installation, safety and transparency of compliance with fishing areas are being addressed.
I believe that the Maritime Safety Authority of Fiji could look at implementing mandatory use of AIS units on all Fiji flagged vessels as a means of increasing vessel safety at sea.
This could also be a backup surveillance for fisheries."
Brett Haywood, owner of the tuna fishing company Sea Quest.

From overfishing to ... smart fishing

"Fishing should not be "out of sight, out of mind"- not when so many human lives and threatened ecosystems depend on the transformation", Alfred Schumm, SFI leader.

Through the Smart Fishing Initiative (SFI), WWF´s global fisheries programme, WWF tackles the many problems of overfishing to contribute to a sustainable future for our global fisheries.

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Why we are here
To stop the degradation of the planets natural envoironment and to build a future in which humans live in harmony with nature.

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