



ILLEGAL, UNREPORTED AND UNREGULATED (IUU) FISHING

Curbing IUU fishing is crucial for sustainable fisheries in the Mediterranean and the Black Sea

What is IUU fishing?

Illegal fishing

This refers to any fishing activity which breaks the laws of the fishery where it takes place. The fishery may be under the national jurisdiction of a coastal state, or on the high seas regulated by a regional fishery management organization (RFMO).

Unreported fishing

This is fishing which goes unreported or is misreported to the relevant national authority or RFMO, contravening regulations in place.

Unregulated fishing

This is carried out by unregistered vessels, or vessels flying flags of nations which are not part of the RFMO that controls the area where they are fishing. It also occurs in areas which are not regulated at all.

5 June: the International Day for the Fight against IUU Fishing

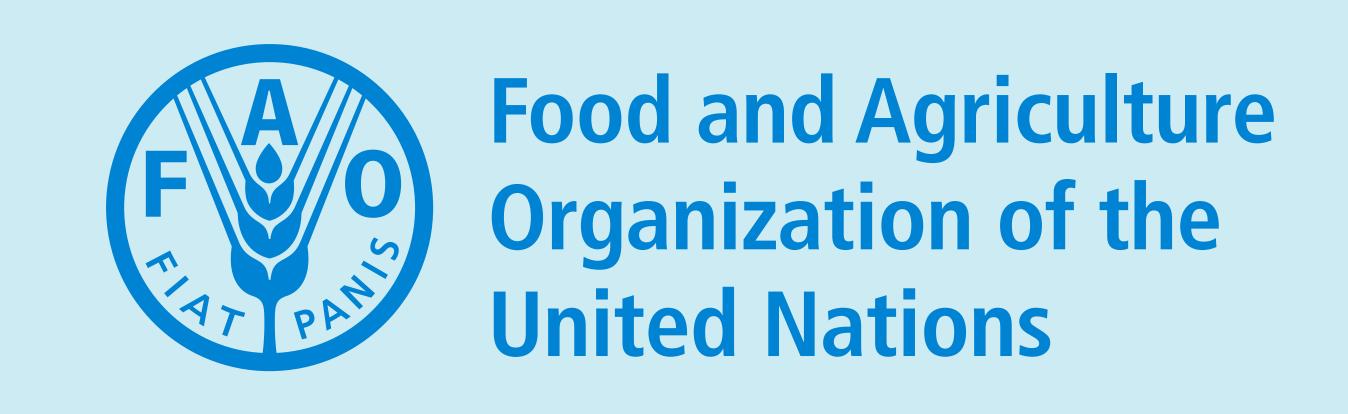
The International Day for the Fight against IUU Fishing (ID-IUU) is an initiative launched in 2015 by the GFCM in Marrakech, Morocco. Thanks to the efforts of the GFCM, it was endorsed by the FAO and by the United Nations General Assembly which, in December 2017, proclaimed the ID-IUU as an official UN observance.

Why is IUU fishing such a serious problem?

- It undermines global, regional and national policies for the sustainability of fisheries, aggravating the status of fishery resources.
- It causes an estimated loss to the global economy, representing up to 26 million tonnes of fish caught annually, valued at USD 10–23 billion.
- It accounts for severe environmental damage to key marine ecosystems due to the use of destructive fishing gear and practices.
- It distorts **open and fair competition** and is linked to various crimes, from the **forging of documents to money laundering and tax evasion**.
- It has **damaging socioeconomic impacts on coastal communities**, disrupting livelihoods, local employment and supply chains and hampering **decent work**.
- It affects our knowledge of the status of fisheries stocks due to lack of data on real catches, landings and fishing activities.

How can we improve the fight against IUU fishing in the Mediterranean and the Black Sea?

- By promoting **knowledge** on the extent of IUU fishing through regular assessments and by **raising awareness** on the threats it poses to coastal communities.
- By fostering **cooperation among all relevant organizations** with a mandate to tackle IUU fishing.
- By promoting joint initiatives such as training for port control inspectors and officers as well as inspections schemes for iconic fisheries in the region.
- By helping to implement all relevant policies, from the ratification of **international treaties** (such as the FAO Agreement on Port State Measures) to compliance with **GFCM recommendations**.
- By providing **technical assistance** to less-developed countries with a view to **building their capacity** in the fight against IUU fishing.







CATEGORY: Awareness raising and dissemination WINNER: Association Club Bleu Artisanal, Tunisia

A traceability label improves market access for legitimate small-scale fishers



What is the project?

The Club Bleu Artisanal label is a simple, cost-effective traceability system, designed for use by small-scale fishers in Tunisia. It uses web-based technology to certify the legal origin of small-scale catches, recording where and when they're made, and by who.

This information helps the fishers access local markets, while people can use an Android application to ensure the quality and origin of the fish they're buying. The fishers are supported in their operations by an office at the port. The Club Bleu team also plays a role in raising consumer awareness of the importance of traceability and sustainability – and of avoiding IUU fish.

Why does this matter?

Sustainable artisanal products need good market access to be viable, and that's what Club Bleu provides. By guaranteeing the traceability, quality and environmental respect that characterise catches made under the scheme – in contrast to IUU activities, which by definition will not be able to prove their origin or legality – the label facilitates access to willing buyers and fair prices for the fishers. This has clear social benefits for coastal communities, as well as supporting small-scale fishery sustainability.

The fishers in the region, where the system operates, work near a marine protected area (MPA). Sustainably managing the local stocks which benefit from proximity to the reserve also means the Club Bleu fishers keep watch against poachers in the MPA, making it harder for IUU activities to take place in the region.

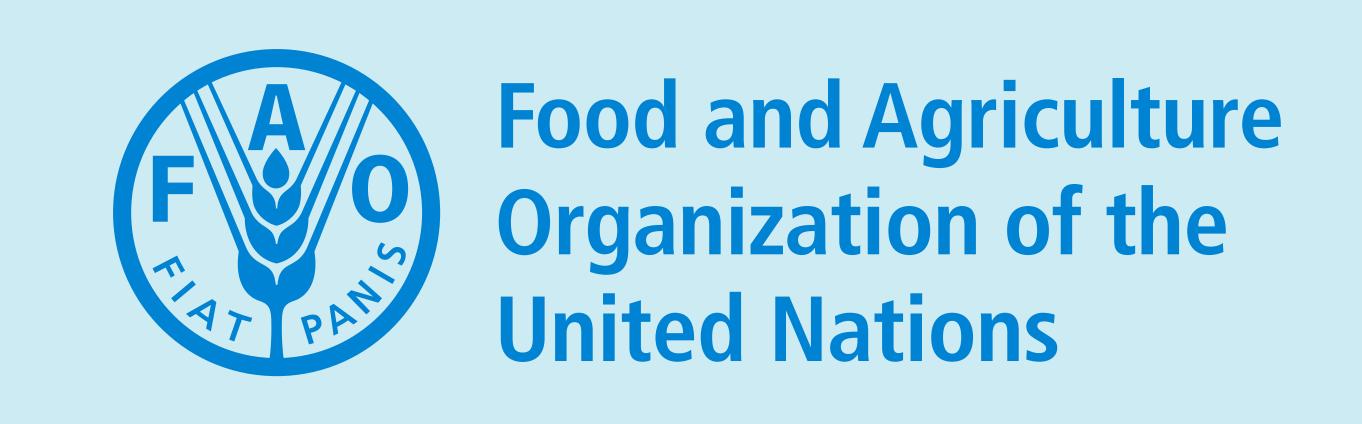


How does the project work?

Through the Club Bleu system, the fishers report their catches, which allows the people who buy their fish to use the app to trace it right back to the boat it came in on.

The Club Bleu label is linked to the Tunisian village of Haouaria, close to the Zembra and Zembratta MPA. Much of the seafood caught in the region is used in the nearby tourist centre of Hammamet – and the Club Bleu team have been working to educate tourists and other consumers on how to eat fish responsibly.

The awareness-raising component of the programme takes place at several levels, from social media to live cookery demonstrations. Promoting responsible fisheries through the Club Bleu programme is a simple but effective tool that works in synergy with other wide efforts in the fight against IUU fishing.

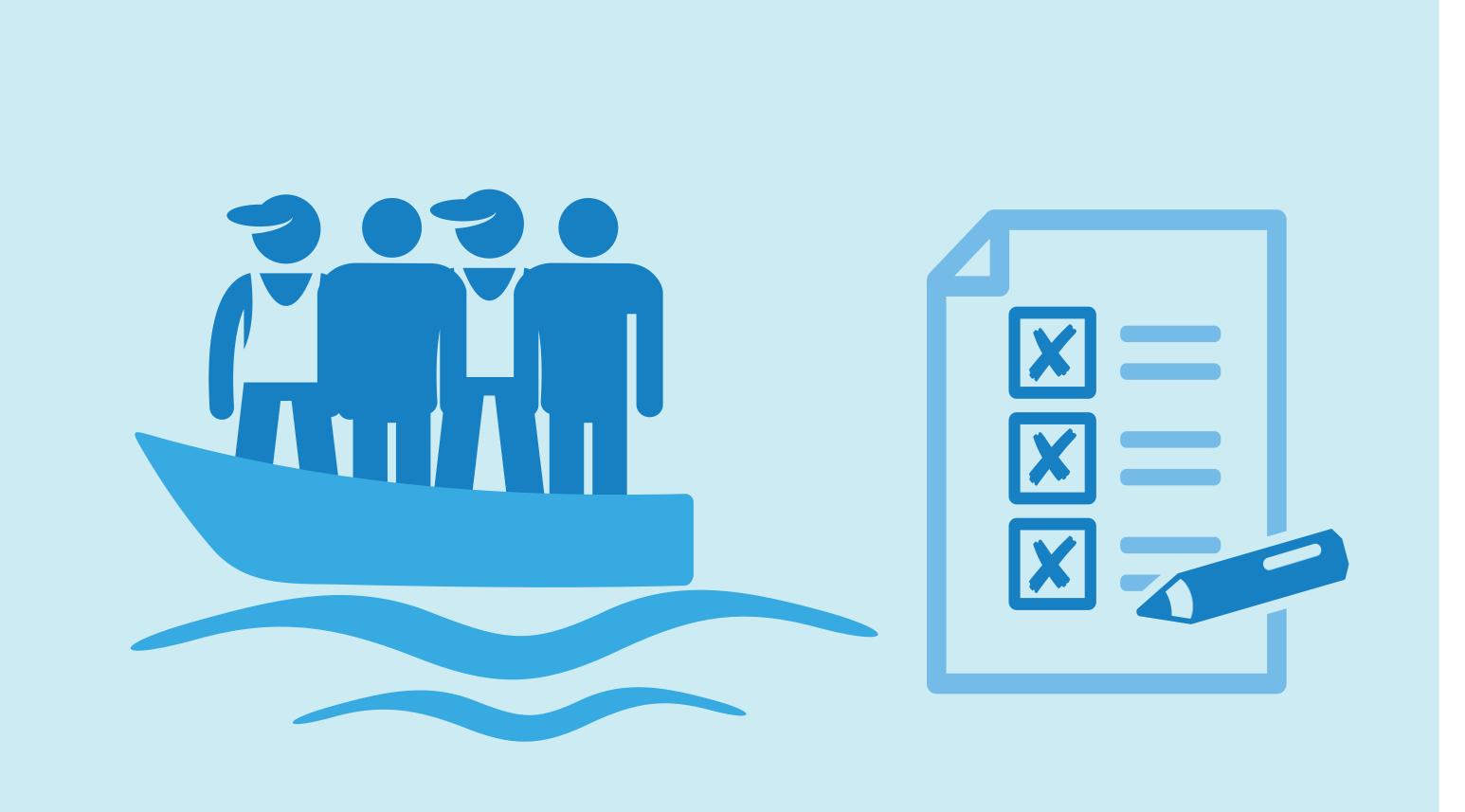






CATEGORY: Awareness raising and dissemination WINNER: Oceana

The insurance industry mobilizes to deny cover to IUU operators



What is the project?

A lot of attention is paid to IUU enforcement regimes

– monitoring technology, fisheries inspectors, citizen surveillance, DNA testing and so on. This project targets IUU fishing activities from a completely different direction: it aims to prevent vessels engaged in IUU fishing from being able to gain access to insurance. If a vessel isn't insured, there's little to no chance that it will be able to operate profitably.

Facilitated by Oceana and the United Nations Environment Programme (UN Environment), the project was launched in 2017 with an industry-wide statement against IUU fishing signed by leading players in the global insurance industry including Allianz, AXA and Generali – to date it has gained the support of more than 30 insurance bodies around the world. In February this year the signatories' commitments were reinforced with the launch of the first ever set of guidelines to assist insurers in avoiding contracts associated with IUU fishing.

Why does this matter?

As it becomes harder for IUU fishing vessel operators to gain access to insurance and other financial services, it also becomes harder for them to operate profitably. As profits reduce, so does IUU activity. Beyond its leading actors the initiative is making an important contribution to a gradual change in perception in the global insurance sector, and now improved due diligence and reformed policies more generally are causing a shift in the economics of IUU fishing.

As IUU fishing becomes less attractive as an economic activity in the Mediterranean, the long-term sustainability of regional fish stocks is only going to improve.

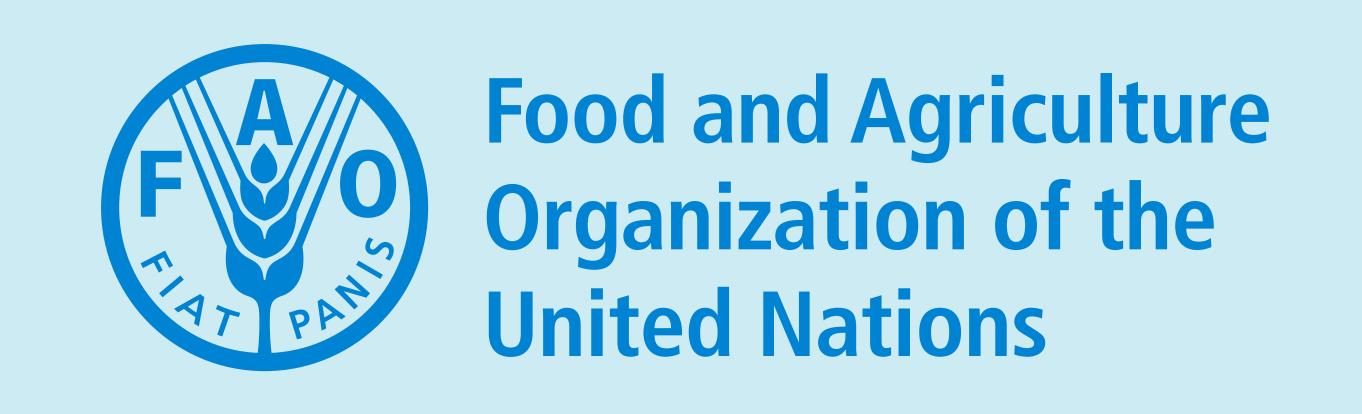


How does the project work?

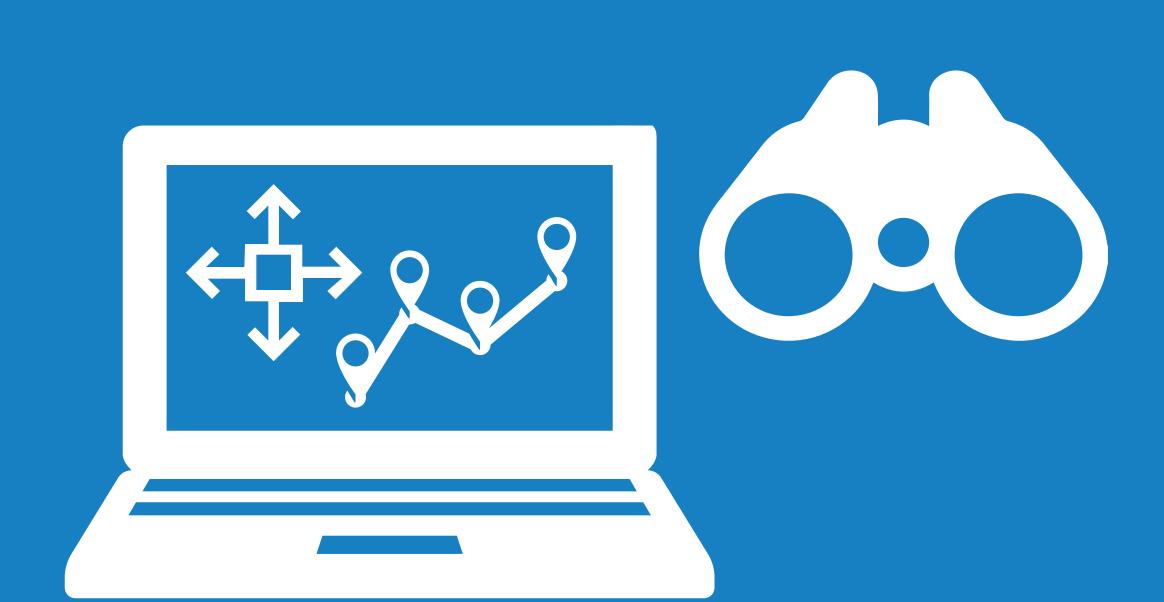
The success of the project depends on the quality of its technical guidelines, which contain detailed and actionable recommendations. In fact, these have been integrated into a broader environmental, social and governance (ESG) risk guide for the global insurance industry developed by UN Environment – they're seen as an example of 'good practice' technical guidelines that identify, assess and mitigate ESG risks

The guidelines have prompted many insurance bodies to modify their corporate policies and procedures, making it far less likely that IUU-related risks could be underwritten. Importantly, there is also firm evidence that companies have lived up to their commitments and cancelled contracts for previously-insured vessels when IUU activity has been detected.

The ultimate aim is for long-term positive change – and this will be strengthened if other related sectors that also serve the fishing industry replicate the successful approach of the insurance sector. Creating a business operating environment where IUU fishing is no longer profitable means there will be little incentive for anyone to participate in it.







CATEGORY: Monitoring technology WINNER: Kingdom of Morocco

A simple solution to trace every boat in the Moroccan small-scale fleet



What is the project?

In Morocco, every small-scale fishing vessel has a permit, which serves to identify it, and which must always be kept on board. Now these vessels are each being fitted with a radio frequency identification device (RFID) containing information about the owner, registration and fishing licence information: this can be read by an inspector via a hand-held device.

Why does this matter?

The RFID programme will make a significant difference in the fight against IUU fishing. Immediate access to verified vessel details will make it much harder for unidentified or dual flagged vessels to access markets, and this information will also be needed when catches are checked and landed.

Legitimate fishers themselves will be able to compete on a level playing field, and the risk of vessel theft is reduced.

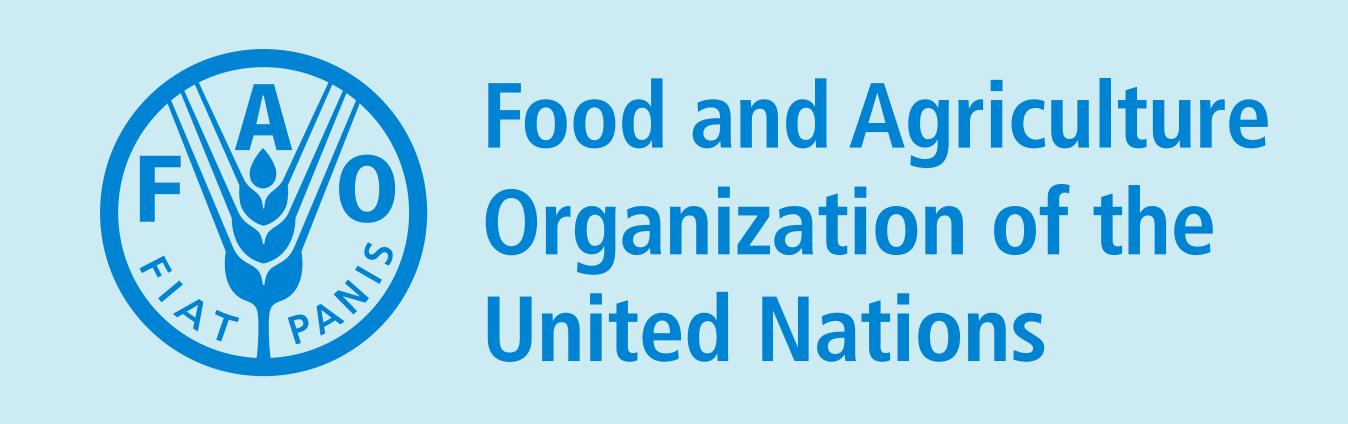
As a measure that improves the quality of data collection, as well as deterring illegal activities, using RFIDs in this way also contributes to the knowledge needed for the longterm sustainable fisheries. Achievement of this goal will provide clear socioeconomic benefits for the fishers on shore, as well as improving their catches at sea.



How does the project work?

Installation and usage of the RFID is a simple process, and smart technologies allow inspectors to easily access information in real time. Each vessel is automatically identified by its unique frequency, and its data is available immediately.

Importantly, the project has taken a clear consultative approach with the artisan fishers from the very beginning. Involving them at every stage of the process has ensured their active participation and support.







CATEGORY: Monitoring technology WINNER: European Fisheries Control Agency (EFCA)

International cooperation puts monitoring and control of IUU activities at the heart of successful fisheries management



What is the project?

The GFCM Strait of Sicily Pilot Project (Pilot Project) implemented by EFCA puts commitments made under the MedFish4Ever declaration into action: specifically, it focuses on implementing monitoring, control and surveillance systems in high seas areas subject to IUU fishing. In this instance it features as part of a GFCM multi-annual management plan for European hake and deep-water rose shrimp fisheries in the Strait of Sicily.

The Pilot Project establishes an observation and inspection programme to detect and act against instances of suspected IUU fishing, which comprised a number of important elements:

- High seas inspections
- Effective investigation procedures for alleged violations
- Provisions for appropriate action in response to violations
- Port inspections
- Monitoring of catches and landings including statistical analysis
- Specific monitoring programmes including boarding and inspection
- Observer programmes

Why does this matter?

First, it demonstrates the capacity and will of parties to implement the MedFish4Ever declaration, directly contributing to the commitments made concerning monitoring, control and surveillance. Seven countries – Algeria, Egypt, Italy, Libya, Malta, Morocco and Tunisia – jointly coordinated their activities, working together with a common goal. A great deal of transparency and trust has developed, and the sharing of best practices (not to mention fisheries inspectors) has leveraged progress across the board.

The lessons learned during the Pilot Project have been embodied in a Joint Scheme for International Inspection, which became operational in the Strait of Sicily in 2018. It's levelling the playing field for legal fishers in the region by making it much harder for IUU fishing to take place, so stocks can be sustainably managed and markets can operate fairly and transparently.

Further afield the project will be hugely valuable, particularly in other high seas areas. Improving the reach and capacity of monitoring and control efforts is a critical part of the fight against IUU fishing, and this MedFish4Ever initiative provides an effective framework for other Mediterranean fisheries managers to follow.



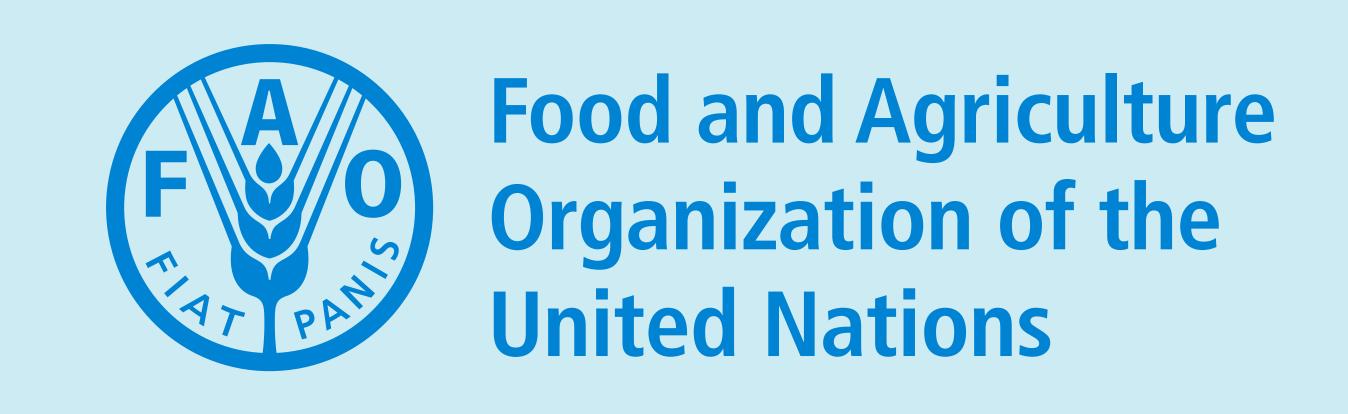
How does the project work?

The Pilot Project combines a number of activities:

- Exchange of best practice and common implementation of GFCM control rules
- Inspector training and capacity building
- Data/information exchange
- Follow-up of inspections and aligned enforcement procedures
- Joint inspection and regional at-sea controls based on a risk assessment approach
- Exploring new control technologies and their applicability in the region

It's a large-scale operation, benefiting from access to the EU's Copernicus European Earth Observation programme to support its activities, along with a range of other data sources. This information is crucial in detecting potentially illegal vessels and gear, as are the efforts of the programme's staff: in two years 150 inspectors, 30 trainers and 4 Fisheries Monitoring Centre operators were trained by EFCA. As knowledge and capacity continue to grow the process builds momentum.

Without this focus on monitoring and controlling IUU fishing, it would be much harder to make a success of the multi-annual management plans it's a part of. With it, a sustainable future for some crucial fish stocks is within reach.

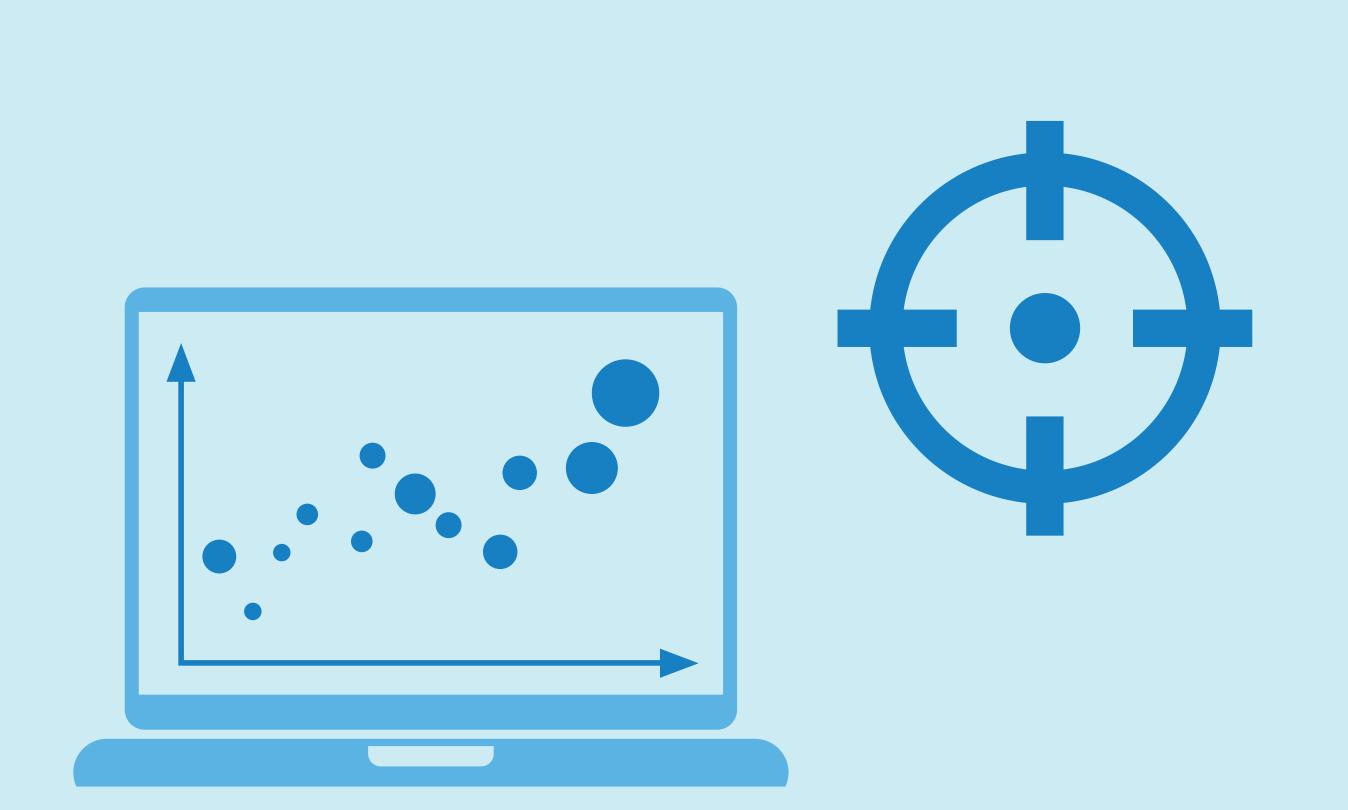






CATEGORY: Monitoring technology WINNER: Ministry of Agriculture, Republic of Croatia

Technology leads the way in Croatia's new traceability regime



What is the project?

Croatia is modernizing its national monitoring, control and surveillance system through the introduction of new fishery inspection technologies. The project aims to improve both efficiency and coverage, detecting and preventing IUU activities while protecting legal fisheries regime from illegal competition.

The same technologies are being used to develop a traceability system which it is hoped will be launched in 2020. Barcode markings will allow consumers to track the fish they're purchasing right back to the vessel which caught it, also providing information on where and when the catch was made, and the gear used.

As well as making a significant contribution to the reduction of IUU fishing activities, the modernized system improves transparency and the data collection process to support improved fishery management.

Why does this matter?

Detecting and preventing IUU fishing is a complex and challenging process, and the more efficient tools authorities have at their disposal, the better their chances of success. Thanks to advances in technology, monitoring and control systems today can provide detailed and verifiable evidence of possible IUU activities.

Close cooperation between inspectors and others in the field is very important. Sharing a powerful database (in this case the 'E-inspection' system) allows quick communication and risk analysis, while maximizing resource efficiency and minimizing costs.

The team behind the project believes that the use of modern technology and digitalization is the best way forwards in the ongoing fight against IUU fishing.



How does the project work?

Several components contribute to the control framework of the project:

Traceability/digitalization of data

More than 750 vessels (making more than 95% of all landings) are covered by a real-time electronic recording and reporting system which provides information on their activities, position, catch and landings. This then carries over into onward supply chains. Crosschecking documentation ensures full traceability and also provides a complete picture of traded catches.

• Fishery monitoring centre

Ten full-time employees in Zagreb provide round-the-clock backup to coordinate field activities, communicate with and monitor vessels, control crosschecking processes and ensure technical and IT support.

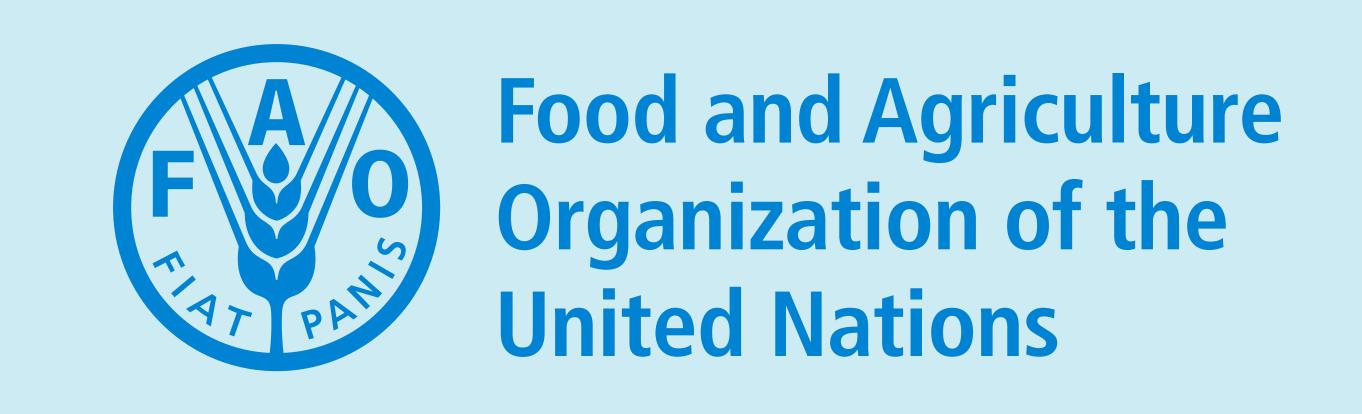
Controls at sea

The last two years have seen major development in the work carried out by fisheries inspectors, who cooperate closely with a range of public authorities. A well-equipped inspection fleet has two new speed boats, and is also equipped with underwater drones and stereoscopic cameras for monitoring blue fin tuna.

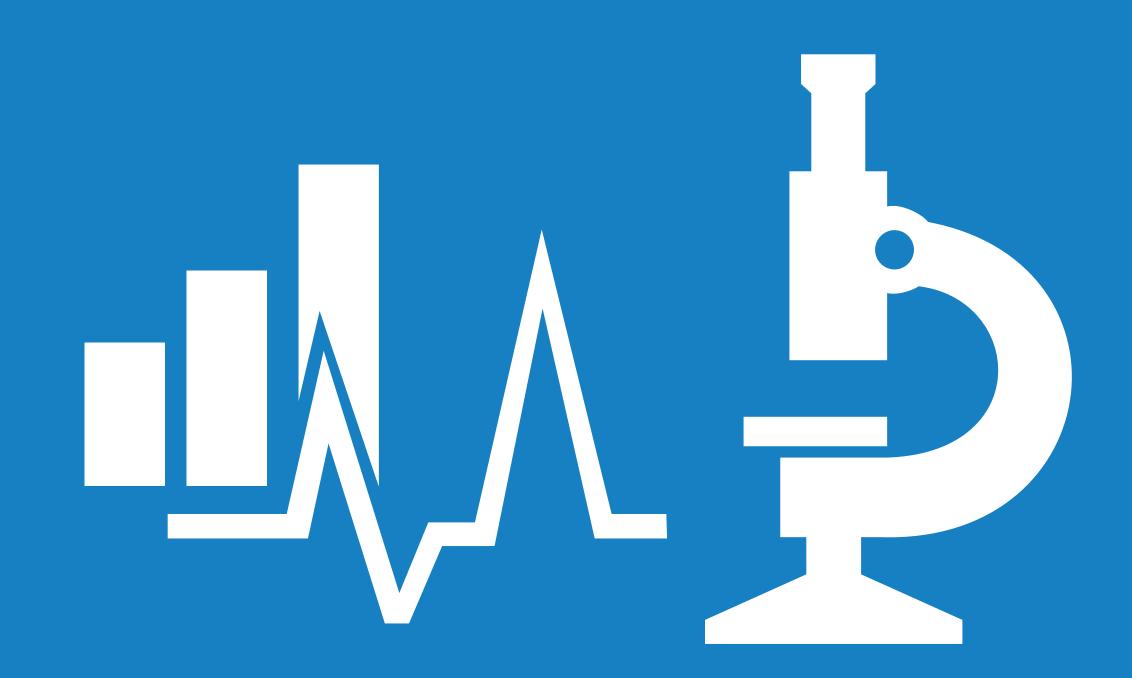
Air surveillance

In 2018 the "Orbiter 3" drone system was introduced. Its six fully equipped drones have a range of 150 km and can fly for 6 hours at a time, while their mobile launching system means can cover all Croatian territorial waters. The drones carry cameras which can read vessel markings at a distance of 2 km, making them ideal for monitoring maritime activities, the blue fin tuna fishery, possible illegal transhipments – and also small-scale fisheries around Croatia's intricate coastline.

Such methods are likely to become increasingly popular in fisheries management across the Mediterranean – Croatia's forward-thinking approach is helping to show the way.







CATEGORY: Scientific research
WINNER: Interreg Med Project FishMPABlue2

Keeping IUU fishing out of marine protected areas



What is the project?

This project – part of the Interreg Med FishMPABlue2 framework – focuses on IUU fishing in marine protected areas (MPAs). It investigates:

- How much is IUU fishing taking place;
- How poaching and its drivers are perceived by legitimate stakeholders;
- How stakeholders can be encouraged to participate in voluntary surveillance.

The initiative has been so far applied in 11 pilot MPAs across six countries: Telascica (Croatia), Bonifacio, Cap Roux, Côte Bleue (France), Zakynthos (Greece), Egadi Islands, Portofino, Torre Guaceto (Italy), Strunjan (Slovenia), Cabo de Palos, Freus d'Evissa I Formentera (Spain). The relevance of its findings, though, is not limited to the locations studied: it will help to form strategies to combat IUU fishing across the whole Mediterranean region.

Why does this matter?

Sustainable artisanal products need good market access to be viable, and that's what MPAs protect biodiversity and can lead to socioeconomic benefits through conserving vulnerable species and habitats, enhancing fisheries and increasing catch revenues. As most MPAs are in coastal waters they're particularly important for small-scale fishers, whose livelihoods are notably vulnerable.

However, MPA effectiveness depends on compliance with their rules: when poachers fish illegally in no-take zones they defeat the entire purpose of protected areas. Poaching in MPAs is often the rule rather than the exception: this damages fish stocks, harms ecosystems and creates knock-on economic impacts in local communities.



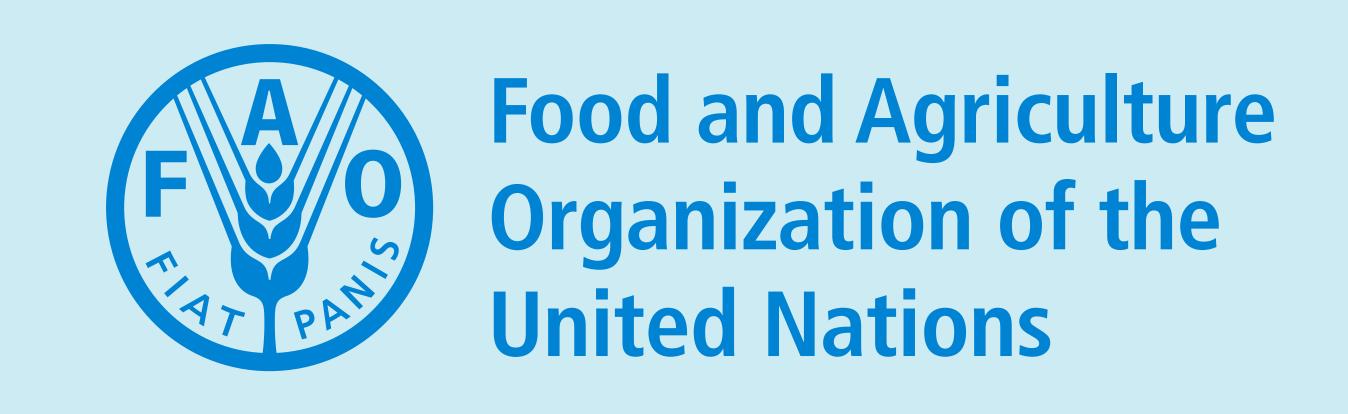
How does the project work?

One of the aims of the FishMPABlue2 project is to identify the current situation of IUU fishing and how does it affect MPAs and coastal areas – and by extension on the communities which rely on local fisheries. We need a sound scientific approach to collect reliable data and analyse the detail of the poaching that's taking place in order to tailor the right responses to combat it.

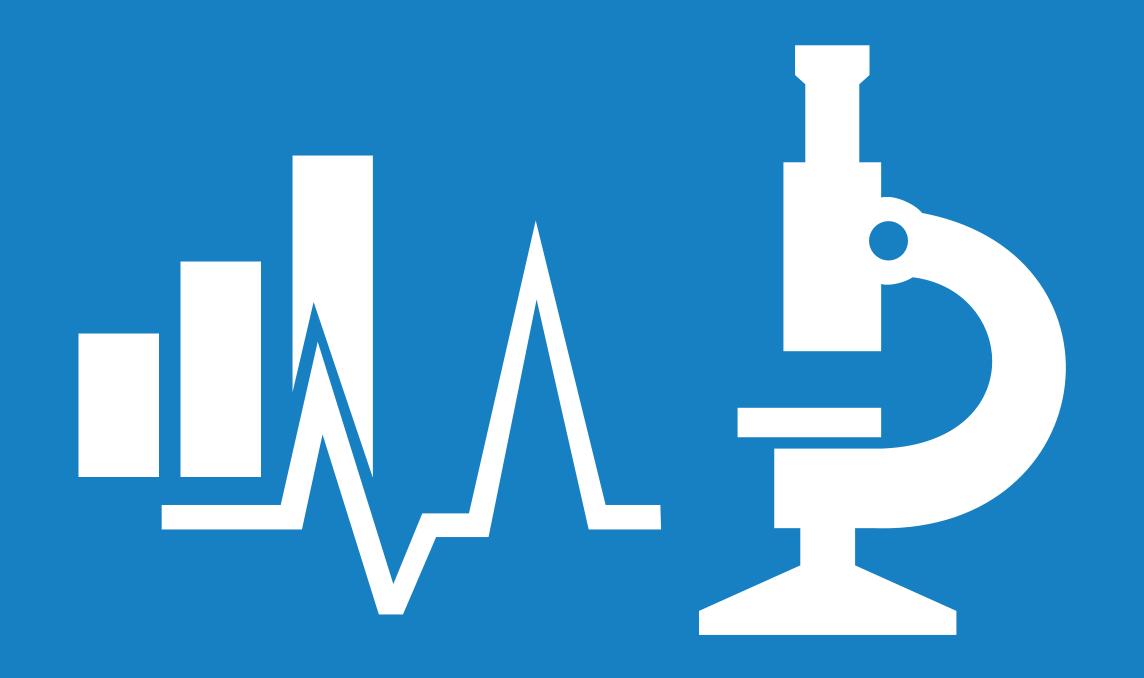
Perception is also important. Through surveys of small-scale fishers and other MPA users the project aims to assess the levels of poaching they believe take place, as well as identify the drivers behind their attitudes to fishery regulations. These findings are useful in many ways, not least in creating a culture of compliance where stakeholder consultation fosters a sense of ownership among users.

These stakeholders may also have a valuable role to play in surveillance and enforcement operations. Citizen involvement can considerably increase the likelihood of detecting illegal activity; the question is how best to motivate them to get involved in the fight.

By filling these knowledge gaps, FishMPABlue2 is providing the building blocks to develop sound strategies to combat IUU fishing across the whole of the Mediterranean – a key priority for MedFish4Ever signatories in the coming years.

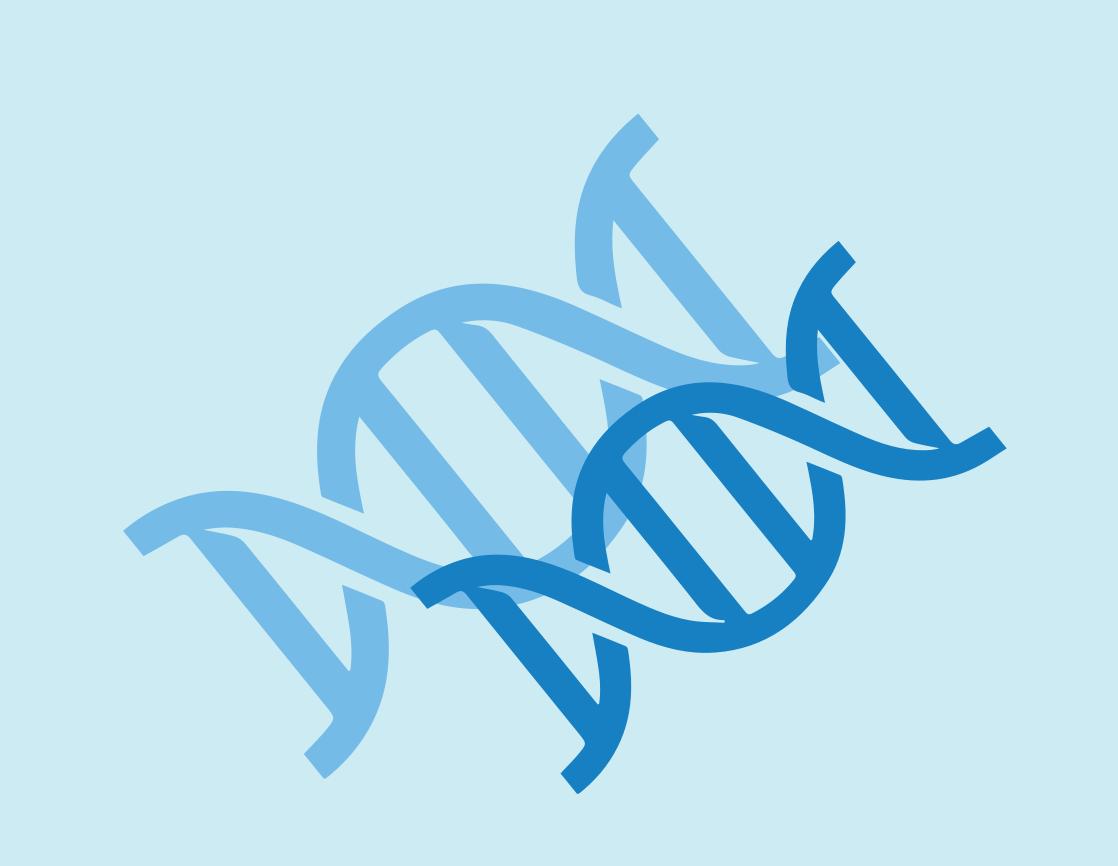






CATEGORY: Scientific research
WINNER: National Institute of Oceanography
and Fisheries (NIOF), Egypt

DNA testing in Egypt keeps IUU fish out of supply chains



What is the project?

This project targets mislabeled fish in supply chains by means of a science-based catch certification scheme. The use of DNA analysis in identification fish and fish products in supply chain audits will answer three key questions:

- What species is it?
- Where was it caught?
- Is it wild or farmed?

By answering these questions and thus providing traceability, the system exposes fish that have been illegally integrated into supply chains. It can also be used to confirm the provenance of products labelled as sustainable, while highlighting the presence of over-exploited species in various markets.

The project has been piloted in small-scale fisheries in Egypt, focusing on a fish species commonly caught in northern and inland lakes.

Why does this matter?

Traceability is critical for sustainable fisheries management. If illegally taken fish enter markets outside the knowledge and control of authorities, then official research data on stocks and catches is called into question, vulnerable species may be overexploited without anyone being fully aware of the situation, and consumer confidence in the provenance and safety of fish can be undermined.

Fishery managers need a full picture of what's going on in their waters, and people buying and eating fish need a full picture of what's on their plate. DNA evidence can't be faked, so this project offers a powerful new tool to contribute to legislative frameworks aiming to guarantee the legality of catch in the Mediterranean.



How does the project work?

The science behind the testing is complex, comprising a range of molecular and biological methods for identifying the origin of sampled products. Planning and honing the processes involved required effective collaboration within a multidisciplinary team specializing in genetics, biology, chemistry and forensics.

DNA barcoding and geographical information systems (GIS) allow the team to expose false information given to consumers, whether this concerns imported fish passed off as native, aquaculture fish sold as wild-caught, or one species mislabeled as another. In positive terms, the same techniques can guarantee that fish caught thanks to sustainable fishing practices, potentially adding a price premium to responsible practices in an increasingly well-informed consumer marketplace.

The next step is for government authorities to roll out the methods across a wider area and officially integrate them into IUU monitoring and control systems. Clearly the experience gained from this work offers great potential for knowledge-sharing across the Mediterranean, building regional capacity in the fight against IUU fishing.