

IMPROVING MARINE FISHERIES TRANSPARENCY THROUGH ELECTRONIC MONITORING IN THE UNITED REPUBLIC OF TANZANIA



Most fisheries in the world lack reliable data about what happens on the water to inform and implement science-based management. The Indian Ocean is the second most productive tuna fishery in the world. Without effective monitoring and enforcement, fisheries will struggle to reach sustainability.

To fill data gaps and inform fisheries management, Deep Sea Fishing Authority (DSFA), in collaboration with The Nature Conservancy (TNC), will pilot electronic monitoring (EM)—the use of onboard video cameras, GPS, and sensors to automatically track and verify fishing activity onboard fishing vessels. Data is power, and EM data will supplement the existing the United Republic of Tanzania's (URT's) human observer program and potentially support Marine Stewardship Council (MSC) certification. EM will enhance transparency and help to manage and conserve URT's fisheries.

THE PROBLEM

More than 90% of illegal, unreported, and unregulated (IUU) activity in tuna fisheries occurs by licensed fishing vessels, which are not reporting or under-reporting catches. The negative impacts of IUU run deep—from hundreds of millions of dollars in lost revenue for local communities and national governments, to significant levels of “bycatch” of at-risk species such as sharks and sea turtles, to the overfishing of regional fishing stocks. These effects threaten ecosystems, global food supplies, and livelihoods.

The little independent fisheries data we have is primarily collected remotely, limiting our ability to understand what is happening aboard vessels. Data is also collected by human observers stationed on fishing vessels, which is expensive, often impractical at-scale and can present a serious safety risk (observers have been killed to hide poaching).

THE APPROACH

The URT sees the value of using EM to improve fisheries monitoring, enhance transparency, provide faster communication, and avoid complacency with the current human observer program.

The EM pilot project will be used to test and gather lessons learned for how an EM program could be designed to support 100% EM application in industrial fishing vessels, including costs, training, and infrastructure. DSFA will use EM data to enhance and address compliance issues and validate logbooks. This project is a collaborative effort and will need full support and buy-in from industry and project partners for project success.

PROJECT GOAL

Use EM pilot to drive towards and inform the URT's proposed commitment to 100% transparency in all industrial fishing vessels at sea by 2027.

PROJECT OUTCOMES

- **Demonstrate the validity and usefulness of EM** as a monitoring tool.
- **Build solid working relationships** among partners.
- **Generate reliable fisheries data** that can be used for compliance, science, training, and marketing purposes.
- **Enhance the institutional capacity of partners** to use EM and work towards a scaled-up EM program in recognition of commitment to 100% on the water monitoring.

PROJECT TIMELINE

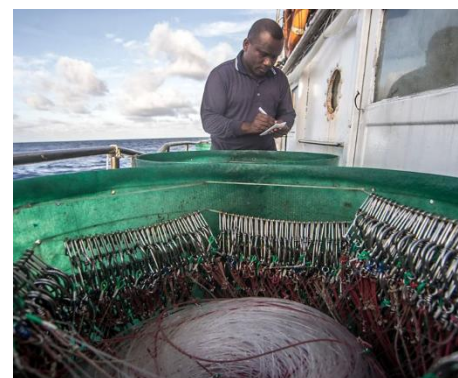
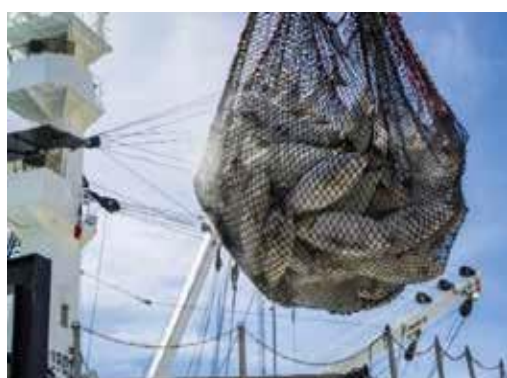
2023 - 2027

MAIN PROJECT PARTNERS

- Deep Sea Fishing Authority
- Fishing Industry
- The Nature Conservancy
- Chemonics International
- Wildlife Conservation Society

PROJECT FUNDING

USAID Tanzania Heshimu Bahari
“Respect the Ocean” Project



GOVERNMENT INVOLVEMENT

HOW WILL GOVERNMENT BE INVOLVED IN THE PROJECT?

DSFA will provide critical input into the design of the EM pilot and program, including setting goals, objectives, and minimum data and performance requirements for industry to adhere to. Alongside TNC, a core planning team from DSFA will lead work planning efforts, EM data review, and communication with stakeholders on the project. DSFA will take EM data and use it to inform fisheries management decisions and provide feedback back to vessels to support more sustainable fishing practices and address compliance events.

EXPECTED ROLES & RESPONSIBILITIES:

- Provide input into EM project workplan.
- Provide feedback on EM pilot goals, objectives, needs, budget, and timelines.
- Provide feedback on EM pilot project success metrics to inform EM program design.
- Define partners and clarify roles and responsibilities.
- Facilitate buy-in with industry.
- Receive training on EM installations.
- Use EM data to inform fisheries management decision making, handling practices, and address compliance events.



INDUSTRY INVOLVEMENT

HOW WILL INDUSTRY BE INVOLVED IN THE PROJECT?

Industry will provide valuable insight into the EM pilot design and cooperate with government in launching the EM pilot and EM program. Benefits of EM for vessels includes: (1) meet observer requirements in fishery improvement projects and MSC-certified fisheries, unlocking premium pricing for fishing companies; (2) inform company operations and serve as a critical risk mitigation tool; (3) shape the way EM programs develop from the beginning and potential to receive special incentives (such as cost sharing) for agreeing to participate.

EXPECTED ROLES & RESPONSIBILITIES:

- Provide input into the planning and implementation of EM pilot and EM program.
- Provide an open line of communication and cooperation between project partners.
- Maintain EM systems and meet duty of care responsibilities to ensure functionality.
- Report system malfunctions.
- Address issues identified through EM data review.
- Abide by minimum data and performance requirements set by government.
- Use EM data and feedback from government to adjust fishing practices to support more sustainable fishing practices.



TNC INVOLVEMENT INCLUDES:

- Providing technical expertise and overall project management.
- Supporting the URT government in EM pilot and EM program design and implementation.
- Leveraging financial support for EM installation, EM data review, and capacity to support project activities.

MAJOR FUNCTIONS OF EM LIFE CYCLE

