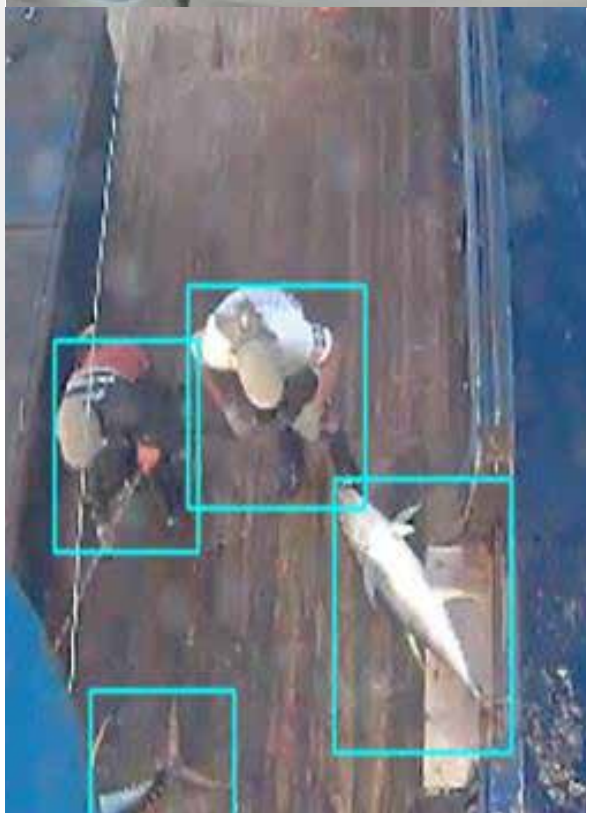

Electronic Monitoring: Market incentives for driving EM implementation

IATTC
25 April 2023

The Nature Conservancy

Photos (Clockwise from top left): Jason Houston/TNC ; Kydd Pollock; TNC.

Momentum for EM

Demand for EM has moved from small 2-3 vessel trials to major commitments from governments, supply chain actors, and retailers.

- **Government EM commitments:** Federated States of Micronesia, Seychelles, New Zealand, Ghana, and other governments are committing to EM.
- **EM has the momentum of market incentives:** Thai Union has committed to 100% on-the-water monitoring by 2025, and several retailers have committed to transparency goals that are supported by EM (e.g., Tesco).

Thai Union partners with The Nature Conservancy on anti-IUU initiative

By Cliff White
March 3, 2021

SHARE

Thai Union has committed to full transparency in its international tuna supply chain by 2025.

The Bangkok, Thailand-based seafood company, which notched more than USD 4.1 billion (EUR 3.3 billion) in revenu in 2019, signed a partnership with The Nature Conservancy o Wednesday, 3 March, committing to full supply-chain transparency across its global tuna supply chains.

The move will require Thai Union to install electronic monitoring on all of its partnered fishing vessels in their supply chains, including onboard video cameras, GPS, and sensors to automatically track activities onboard. These

COMMITTING TO FISHERIES TRANSPARENCY IN THE FEDERATED STATES OF MICRONESIA BY 2023

In October 2018, the government of the FSM announced its commitment to achieve full tuna fishery transparency by 2023. It will do so by introducing electronic monitoring and improved human observer coverage of all industrial tuna fishing vessels in its waters. Their vision is to achieve full tuna fishery transparency by 2023.

NGO TUNA Forum

AI

WCPFC Crosscutting & Specific Asks

1. **Adopt EM Minimum Standards** (developed by the ER and EM Working Group) and a timeline for implementation by WCPFC by 2023. **Require 100% observer coverage (human and/or electronic)** in industrial tuna fisheries, including all those vessels engaged in at sea transshipment, by 2024.

Two Program Administration Approaches

Fishery Authority Administered (Government Led)

- Beyond Program Design, Gov leads EM vendor selection and EM data review
- Guarantees Gov control over EM Program
- Challenges: Capacity constraints, EM vendor selection misalignment, Business Model and tech “lock-in”

Performance Based EM Program (Industry Led)

- Gov designs EM Program and Reqs, private sector delivers against them
- Maximizes alignment of incentives between public and private sectors
- Challenges: EM systems interoperability and “meeting fishers where they are”

Cost Structure for the Two Models

Government led Program

1. Gov performs or pays for EM Data Review
2. Vessel or Gov pays for EM Hardware and Mant.
3. *Vessel + Processors split costs

Cost Structure for the Two Models

Industry led Program

1. Vessel pays: EM Review + Hardware and Maint.
2. Gov performs or pays for QC of EM Review
3. *Vessel + Processors split costs

Example Range of EM Budgets (long line tuna)

CATEGORY	ITEM	COST RANGE	DESCRIPTION
EQUIPMENT**	HARDWARE & SHIPPING	$7,000 - $11,000	Hardware system (90%) and shipping costs (10%)
INSTALLATION**	TRAVEL AND TECHNICIAN LABOR	$2,000 - $5,000	Travel expenses for technicians and labor costs for installation
MAINTENANCE	MAINTENANCE AND WARRANTIES	$2,000 - $4,000	Estimated costs for annual maintenance and warranty fees
TOTAL EQUIPMENT, INSTALL, AND MAINTENANCE	*Subtotal*	*$11,000 - $20,000*	*Total for equipment, install, and maintenance*
DATA COLLECTION AND REVIEW	REMOTE SUPPORT	$1,500 - $2000	EM service provider cost for remote support to vessel owners and other project partners
	DATA REVIEW - FISHING ACTIVITIES	$3,000 - $5,000	Estimate for review of 36 sets (20% of all sets) during expected trips over 12-month period; example represents annual activities in a tuna long line fishery
	DATA REVIEW - TRANSIT/NON-FISHING	$4,000 - $6,000	Estimate for review of 25% of transit footage if monitoring for pollution, labor, transshipment and other non-fishing activities
	HARD-DRIVE SHIPPING	$2,000 - $3,000	Annual costs of shipping hard-drives to international data review centers
	Subtotal	*$10,500 - $16,000*	*Total for data collection and review*
ANNUALIZED PER VESSEL EM COSTS	**ANNUAL OPERATIONAL COSTS BASED ON 4-YEAR PROJECT LIFESPAN**	**$14,750 - $24,000**	Annualized costs per vessel per year. Cost includes year 1 start-up costs and is annualized on an assumed 4-year project lifespan. Annual costs cover maintenance, warranties, and data collection and review activities.

Two Examples of Market Incentives: Canned Tuna

PACIFIC ISLAND TUNA

a) Differentiated Pricing
b) Price stability model
c) Longer term sourcing

- 100% EM Coverage + 3rd party Data Review
- Crew member touchpoint after every trip
- Digital Traceability of operations

Two Examples of Market Incentives: Fresh Tuna

a) Differentiated Pricing
b) Price stability model

- 100% EM Coverage + 3rd party Data Review
- Fish level Traceability
- Carbon Positive Operation

Marine Stewardship Council's Fisheries Standard v.3

- Markets are increasingly making public commitments to sourcing MSC product (e.g. Walmart)
- The new MSC Fisheries Standard requires at least 30% independent observer coverage in many tuna fisheries
- Without EM, some of these fisheries will be unable to progress to or retain MSC certification
- EM will be critical for obtaining and/or maintaining market access