Evidences

Study #3874

**Contributing Projects:**
- P1862 - Inspire Winner Scale Up Runner Up 2019: An integrated data pipeline for small-scale fisheries

**Part I: Public communications**

**Type:** OICR: Outcome Impact Case Report  
**Status:** Completed  
**Year:** 2021

**Title:** Timor-Leste enables data-driven fisheries management with adoption and integration of PeskAAS

**Short outcome/impact statement:**
The PeskAAS system was adopted and paid for by the Government of Timor-Leste (GOTL) as part of the annual budget. In providing catch and effort information for the national fishing fleet, it is now the platform for data-driven fisheries decision-making in Timor-Leste, covering about 20 per cent of the national fleet. This system and associated training to maintain and interpret analytics for policy decision making represent significant advances in the capacity of Timor-Leste government to manage their fisheries resources scientifically.
**Outcome story for communications use:**

- The PeskAAS system was developed by WorldFish in Timor-Leste in response to a need for information. The government of Timor-Leste had scant understanding of how many boats were active in the country, where they were fishing and what they were catching. This was partly due to a lack of funding resources, but also due to an historical prioritization of farming practices over fishing. However, fish was highlighted in the National Strategic Development Plan (2012-2030) as a critical resource in combating severe malnutrition in the country. Hence, decisions lacked any scientific or data-driven reasoning, and managers were in the dark about the fishery.

- Since 2017, WorldFish scientists have worked alongside government fisheries officers to develop a digital catch reporting system that could gather fisheries landings information from remote sites around the country in near real time. Through an innovated partnership with US private sector firm Pelagic Data Systems, WorldFish also began to gather high resolution spatial information about the fishery and fishing behaviour, which could be combined with catch data to provide much more accurate measures of relative fish abundance in space and time. The initial extrapolated data from this system allowed for the first calculation of national fisheries production including small-scale fisheries. The Fisheries directorate hired 11 new dedicated fisheries landings enumerators, one for each municipality of the country, and in May 2019, the Government announced the launch of PeskAAS as the official national monitoring system of Timor-Leste.

- In late 2020 the government of Timor-Leste (GOTL) committed to the continued funding of the PeskAAS system and employed a further 5 data enumerators. In September 2021, an agreement was signed between GOTL and WorldFish securing funding of USD 120,000 per year for the maintenance of the system and data fees. This system is now an integrated element of a transparent, data-driven decision-making process for Timor-Leste fisheries. It has generated new interest and recognition of the value of fisheries in the country for employment, food and nutrition, but also highlighted the opportunities for digital approaches in other sectors. The GOTL have invested in a new fisher registration process to complement PeskAAS, and there is new momentum and positivity about fisheries in the country.

- Beyond Timor-Leste, this system and approach is being acknowledge as a best practice for data collection from small-scale fisheries, as evidenced by its inclusion as a case study in the recently launched globalfishingindex.org.

**Links to any communications materials relating to this outcome:**
- [https://tinyurl.com/y45v5n9d](https://tinyurl.com/y45v5n9d)
- [https://tinyurl.com/y4cqhag5](https://tinyurl.com/y4cqhag5)

**Part II: CGIAR system level reporting**

**Link to Common Results Reporting Indicator of Policies**: Yes

**Policies contribution:**
- 632 - Near Real-Time Data in Support of National Fisheries Strategy in Timor Leste ([https://tinyurl.com/2hnfcme7](https://tinyurl.com/2hnfcme7))

**Stage of maturity of change reported**: Stage 3
**Links to the Strategic Results Framework:**

Sub-IDOs:
- Enhanced conservation of habitats and resources
- Increase capacity of beneficiaries to adopt research outputs

Is this OICR linked to some SRF 2022/2030 target?: Too early to say

Description of activity / study: <Not Defined>

**Geographic scope:**
- National

Country(ies):
- Timor-Leste

Comments: This system is being adapted and scaled to other fisheries contexts in Malaysia, Kenya and Tanzania.

**Key Contributors:**

Contributing CRPs/Platforms:
- BigData - Platform for Big Data in Agriculture
- Fish - Fish

Contributing Flagships:
- M3: Inspire

Contributing Regional programs: <Not Defined>

Contributing external partners:
- The Minderoo Foundation
- MAF-TL - Ministry of Agriculture, Fisheries and Forestry (Timor)
- PDS - Pelagic Data Systems

**CGIAR innovation(s) or findings that have resulted in this outcome or impact:**

PeskAAS

**Innovations:** <Not Defined>
Elaboration of Outcome/Impact Statement:
- The PeskAAS system was developed by WorldFish in Timor-Leste in response to a need for information. The government of Timor-Leste had scant understanding of how many boats were active in the country, where they were fishing and what they were catching. This was partly due to a lack of funding resources, but also due to an historical prioritization of farming practices over fishing. However, fish was highlighted in the National Strategic Development Plan (2012-2030) as a critical resource in combating severe malnutrition in the country. Hence, decisions lacked any scientific or data-driven reasoning, and managers were in the dark about the fishery.

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References cited:
• [1] MAF-TL evidence (no citable ref. contact mcs.peskamor@gmail.com))
(https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0234760)

Quantification: <Not Defined>
**Gender, Youth, Capacity Development and Climate Change:**

**Gender relevance:** 1 - Significant

Main achievements with specific Gender relevance: This system provides a platform for sex-disaggregated fisheries data collection, and new opportunities to enhance the role and inclusion of women and other marginalised groups in decision-making in aquatic resource management.

**Youth relevance:** 1 - Significant

Main achievements with specific Youth relevance: Youth represent a driving force in the development and championing of digital innovations in Timor-Leste, and through training and mentoring of new graduate trainees in the fisheries department, this project provides new ways for youth to engage in fisheries.

**CapDev relevance:** 2 - Principal

Main achievements with specific CapDev relevance: This system and the associated training to maintain and interpret analytics for policy decision making represent significant advances in the capacity of Timor-Leste government to manage their fisheries resources scientifically.

**Climate Change relevance:** 1 - Significant

Describe main achievements with specific Climate Change relevance: The near real time data and analytics provided by this system now adopted by the GOTL allow for rapid identification of climate change impacts on fisheries systems, and the adaptation of policy to mitigate their effects.

**Other cross-cutting dimensions:** Yes

**Other cross-cutting dimensions description:** This has very specific outcomes in terms of environment and biodiversity because it allows for the first time an opportunity to quantify the impact of fisheries on marine resources in Timor-Leste, and the area under improved management.

**Outcome Impact Case Report link:** Study #3874

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