Part I: Public communications

Type: OICR: Outcome Impact Case Report
Status: Completed
Year: 2019
Tagged as: New Outcome/Impact Case
Title: Adoption of digital fisheries monitoring system in Timor-Leste enables science driven development prioritisation

Short outcome/impact statement:
The digital pipeline and script to automate fisheries analytics has led to Timor-Leste government uptake and utilization of the system to manage fisheries and prioritize fisheries development and extension support to fishers and fish workers.

Outcome story for communications use:
The "Integrated data pipeline for small-scale fisheries" was developed by WorldFish in Timor-Leste in response to a need for information. The government of Timor-Leste had only patchy 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. WorldFish scientists 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. The transparent co-creation of the system with the fisheries directorate was important in building local ownership of the system, and greatly enhances the potential sustainability.

Links to any communications materials relating to this outcome:
- https://www.youtube.com/watch?v=Gma3IPPP-w0M
- http://tinyurl.com/y99ehqky
- http://tinyurl.com/yctfnnxmq

Part II: CGIAR system level reporting
Link to Common Results Reporting Indicator of Policies: Yes

Policies contribution:
- 314 - National Fisheries Strategy of Timor-Leste

Level of maturity of change reported: Level 2

Links to the Strategic Results Framework:
Sub-IDOs:
- Enhanced institutional capacity of partner research organizations
- Enhanced individual capacity in partner research organizations through training and exchange
- Enhanced adaptive capacity to climate risks (More sustainably managed agro-ecosystems)

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

Comment: <Not Defined>

Geographic scope:
- National

Country(ies):
- Timor

Comments: <Not Defined>

Key Contributors:
Contributing CRPs/Platforms:
- Fish - Fish

Contributing Flagships:
- M3: Inspire
- M1: Organize

Contributing Regional programs: <Not Defined>

Contributing external partners:
- PDS - Pelagic Data Systems

CGIAR innovation(s) or findings that have resulted in this outcome or impact:
N/A

Innovations:
- 1289 - Big data technology and near real-time production tracking to improve small-scale fisheries management
**Elaboration of Outcome/Impact Statement:**
The "Integrated data pipeline for small-scale fisheries" was developed in Timor-Leste in response to a need for information. The government of Timor-Leste had only patchy 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.

WorldFish scientists 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. The transparent co-creation of the system with the fisheries directorate was important in building local ownership of the system, and greatly enhances the potential sustainability.

**References cited:**
Press release: http://tinyurl.com/y99ehqky
News coverage: http://tinyurl.com/yucufnxmq
Televisioned news coverage: https://www.youtube.com/watch?v=Gma3lPP-W0M

**Quantification:** <Not Defined>

**Gender, Youth, Capacity Development and Climate Change:**
**Gender relevance:** 0 - Not Targeted
**Youth relevance:** 0 - Not Targeted
**CapDev relevance:** 2 - Principal

Main achievements with specific CapDev relevance: This innovation has enabled the institutional and individual capacity development of our partner institution the Fisheries Directorate of the Ministry of Agriculture and Fisheries, enabling their more effective management of marine resources in their country, and the data-driven decision making relating to intervention and extension prioritisation.

**Climate Change relevance:** 1 - Significant

Describe main achievements with specific Climate Change relevance: This innovation has brought about the first useful data with which to benchmark monitoring the impacts of climate change on coastal livelihoods as well as the evaluation of fisheries as an important buffer to climate variability and events effecting pastoral and livestock farming in Timor-Leste.

**Other cross-cutting dimensions:** NA

**Other cross-cutting dimensions description:** <Not Defined>

**Outcome Impact Case Report link:** Study #2916

**Contact person:**
Alex Tilley Big Data Platform and FISH, WorldFish, a.tilley@cgiar.org