



Changing the Paradigm around Small-scale Fisheries Monitoring and Assessment

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Christopher Cusack, Ph.D.

Director, Oceans Technology Solutions, Environmental Defense Fund



**Small-scale fisheries:
the current paradigm**

4.1 million





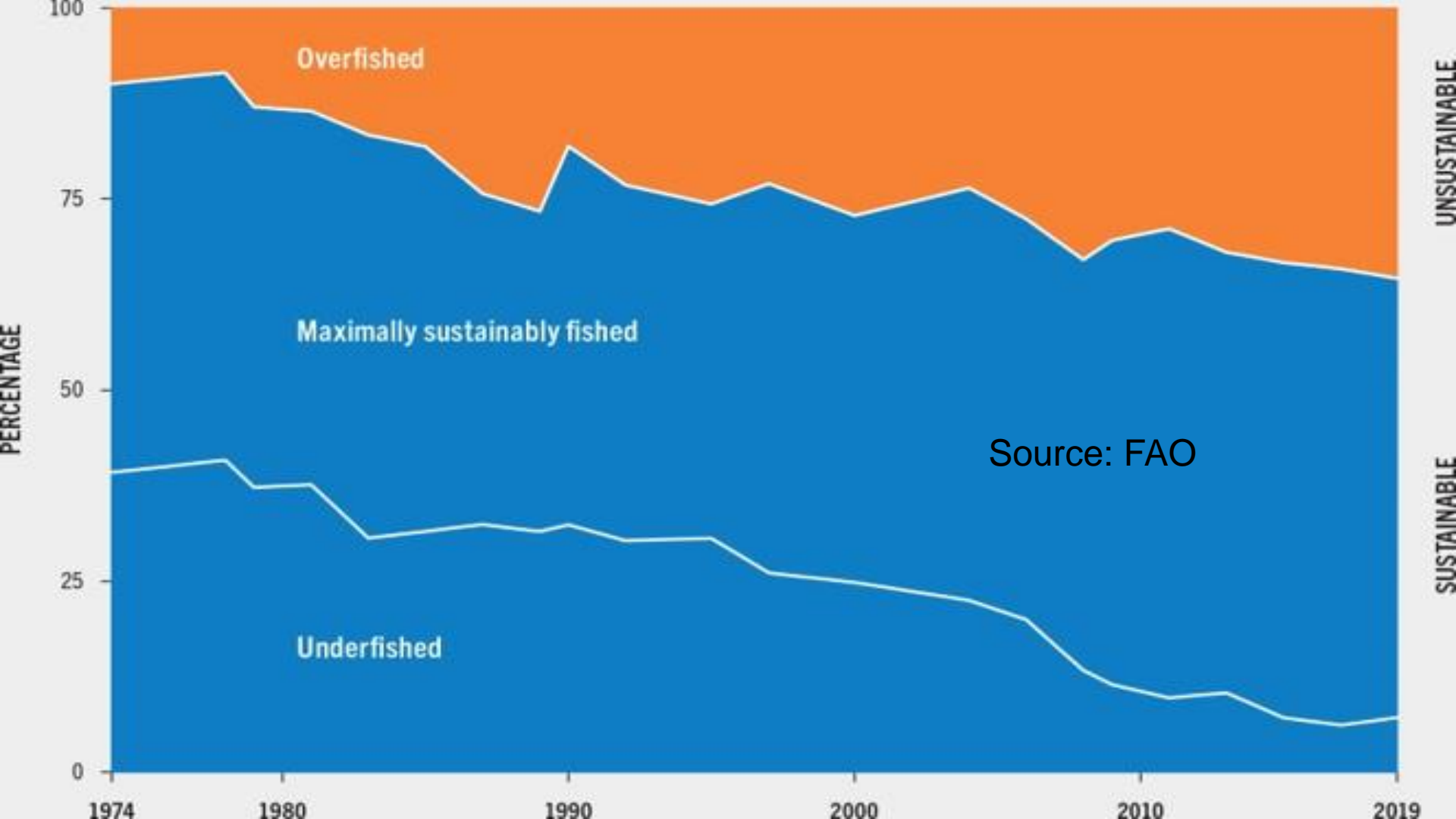
>90%



1/3

An underwater photograph showing a fish suspended from a thin vertical line. The fish is positioned in the upper center of the frame. To the right, the dark, curved hull of a boat is visible. The water is a deep blue, and the bottom is covered with a dense layer of green seagrass. The overall scene is dimly lit, typical of an underwater environment.

17%



Small-scale fisheries: the current paradigm

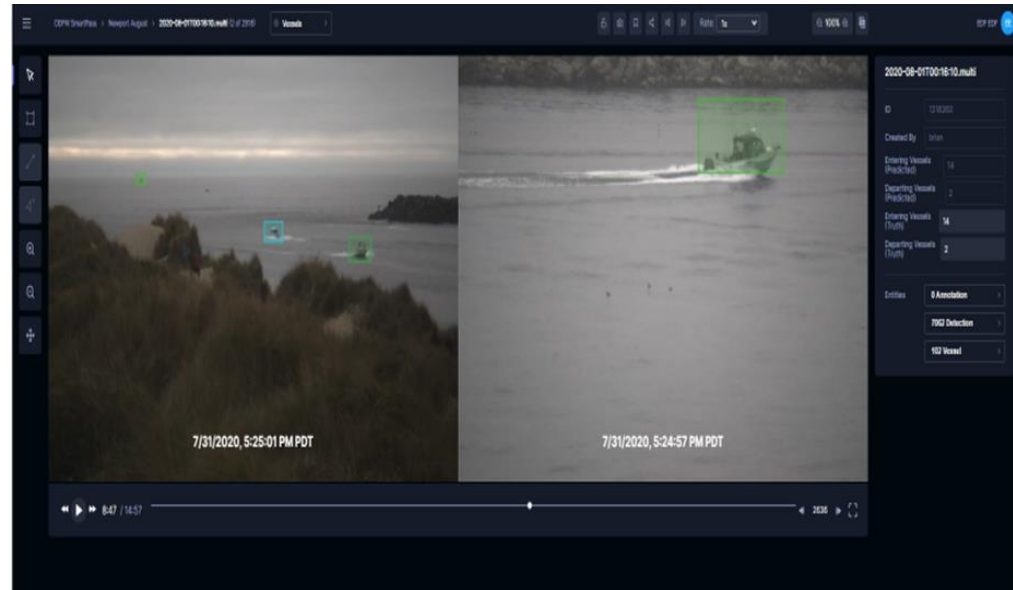
- 90% of exploited stocks (66% of global catch) are unassessed
- SSFs are considered nearly unmanageable:
 - Difficult to monitor and assess
 - Difficult to control fishing effort
- Climate change impacts
- Downward spiral

Shifting the paradigm

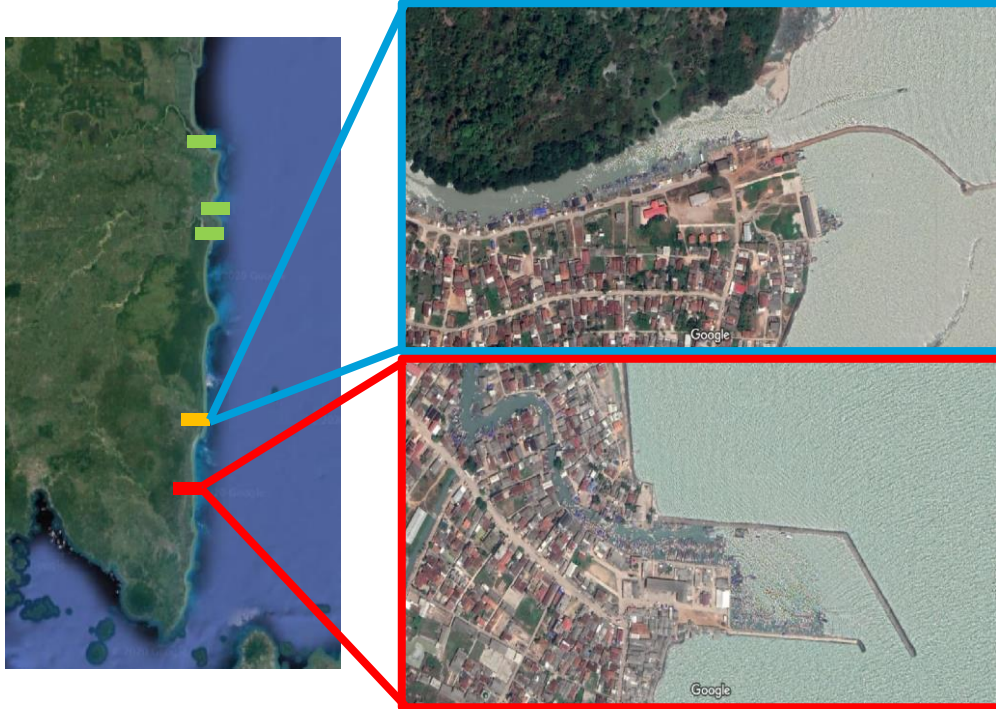
1. Create enabling conditions in the broader economy and institutional context that takes some of the pressure off fish stocks.
2. Improve institutional capacity and knowledge of fishery managers, fishers and community members for science-based management, **increasing the demand for information**.
3. **Increase the supply of information** through deployment of better, more cost-effective tools.

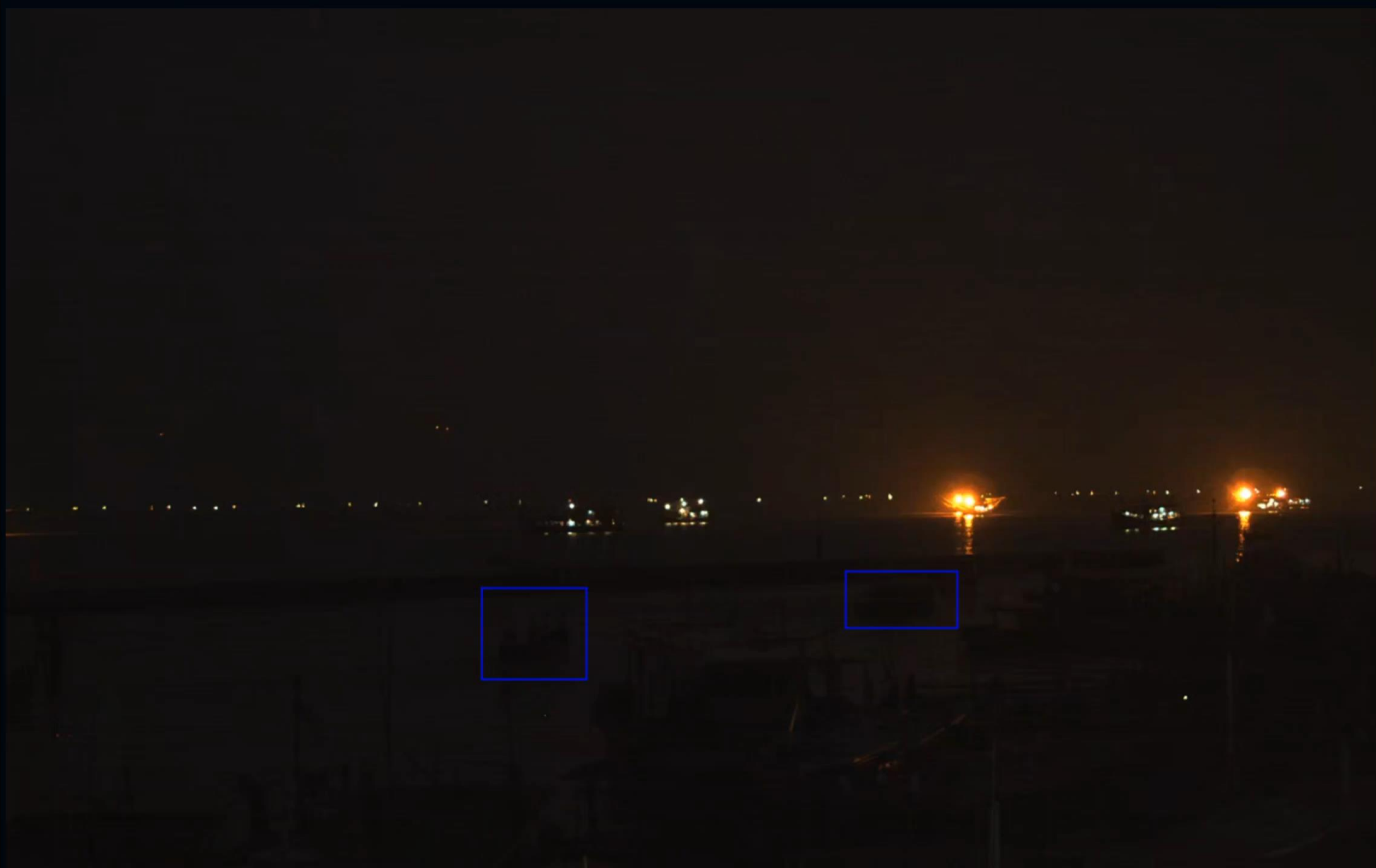
SmartPass

1. Cameras situated at a coastal pass, port, or river mouth
2. Video review platform to assist with video review and AI training
3. AI to classify types of vessels (e.g., recreational or small-scale fishers) and count the number of trips (measure effort)



SmartPass: Lampung blue swimming crab





SmartPass: Shifting the paradigm

Moving small-scale fisheries from data-poor to data-moderate or rich- benefits?

- Better stock assessments → actions to stop overfishing
- Avoidance of catastrophic events
- Reducing uncertainty e.g. summer flounder in the United States.

Reinforcing demand for information-virtuous cycle

Technologies at scale

Not a question of 'should'?



Environmental
Defense Fund

Thank you!