

# Course Overview: Fisheries Performance Assessment Toolkit (FPAT)

Benchmarking and Planning Effective Management

Presenter, Date 2022, Location



Food and Agriculture Organization  
of the United Nations



UNIVERSITY of WASHINGTON



openMSE

[www.openmse.com](http://www.openmse.com)

**Fishery Performance Indicators**

[www.fpilab.org](http://www.fpilab.org)

# Audience

Quantitative fishery scientists with a postgraduate degree in population dynamics, statistics or applied mathematics.

Desirable skills and experience:

- Fishery data analysis
- Fishery stock assessment
- Population dynamics
- Simulation evaluation
- Fishery economics
- Familiarity with local fisheries and data

# Objective

Facilitate wider adoption of FPAT

## Aims

- Support of capacity building and technical expertise in FPAT
- Provide links and resources that provide a comprehensive foundation in the underpinning theories and methods.
- Include references to existing case studies to build familiarity with FPAT functions and limitations.

# Course Contents

1. Introduction
2. Fishery Performance Indicators+
3. Closed-loop simulation
4. FPAT
5. FPAT process
6. Example Application

## Resources: The Coastal Fisheries Initiative (CFI)

- The [CFI](#) is a global effort to preserve marine resources and ensure that coastal fisheries can continue to play their crucial role in society, contributing to food security, as well as economic and social development.
- Funded by the [Global Environment Facility](#) (GEF) the initiative rallies UN agencies and international conservation organizations behind the common goal of promoting the sustainable use and management of coastal fisheries, championing innovative approaches to, improve governance and strengthening the seafood value chain.
- The CFI provides financial and hands-on technical support to coastal fisheries in six countries across three geographic regions: Indonesia, Latin America (Ecuador and Peru) and West Africa (Cape Verde, Cote d'Ivoire and Senegal).

## Resources: Fishery Performance Indicators (FPI)

- An important input to FPAT is the FPI ([Anderson et al. 2015](#)), a triple bottom line (economic, community, ecological) evaluation of fishery performance.
- The FPI is built on the notion that an effective management system is one that is ecologically sustainable, socially acceptable, and generates sustainable resource rents or profits.
- Up-to-date info on the FPIs is posted on the [homepage](#).

## Resources: OpenMSE

- [openMSE](#) (Hordyk et al. 2023) is an open-source R package for the conditioning of operating models, the development of management procedures, exceptional circumstances protocols and the prioritization of research and data collection.
- openMSE is used widely in MSE frameworks around the world including B.C. rockfish in Canada, nearshore species in California, the multi-stock snapper-grouper Atlantic fishery, North Atlantic swordfish and Atlantic haddock.

## Resources: FPAT

- FPAT combines the CFI with the openMSE closed-loop simulation framework to provide a comprehensive basis for benchmarking a fishery then investigating and applying a management option, and finally re-evaluating the fishery against the initial benchmark.
- The app can be found [here](#).
- Detailed information on collecting the required information and using FPAT is available in the [FPAT User Guide](#).



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## **University of Washington**

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## **Food and Agricultural Organization of the UN (FAO)**

The FPAT project was coordinated by Nico Gutierrez