

Ecosystem Approach to Fisheries Management (EAFM)

Version 1



CORAL TRIANGLE INITIATIVE
ON CORAL REEFS, FISHERIES AND FOOD SECURITY

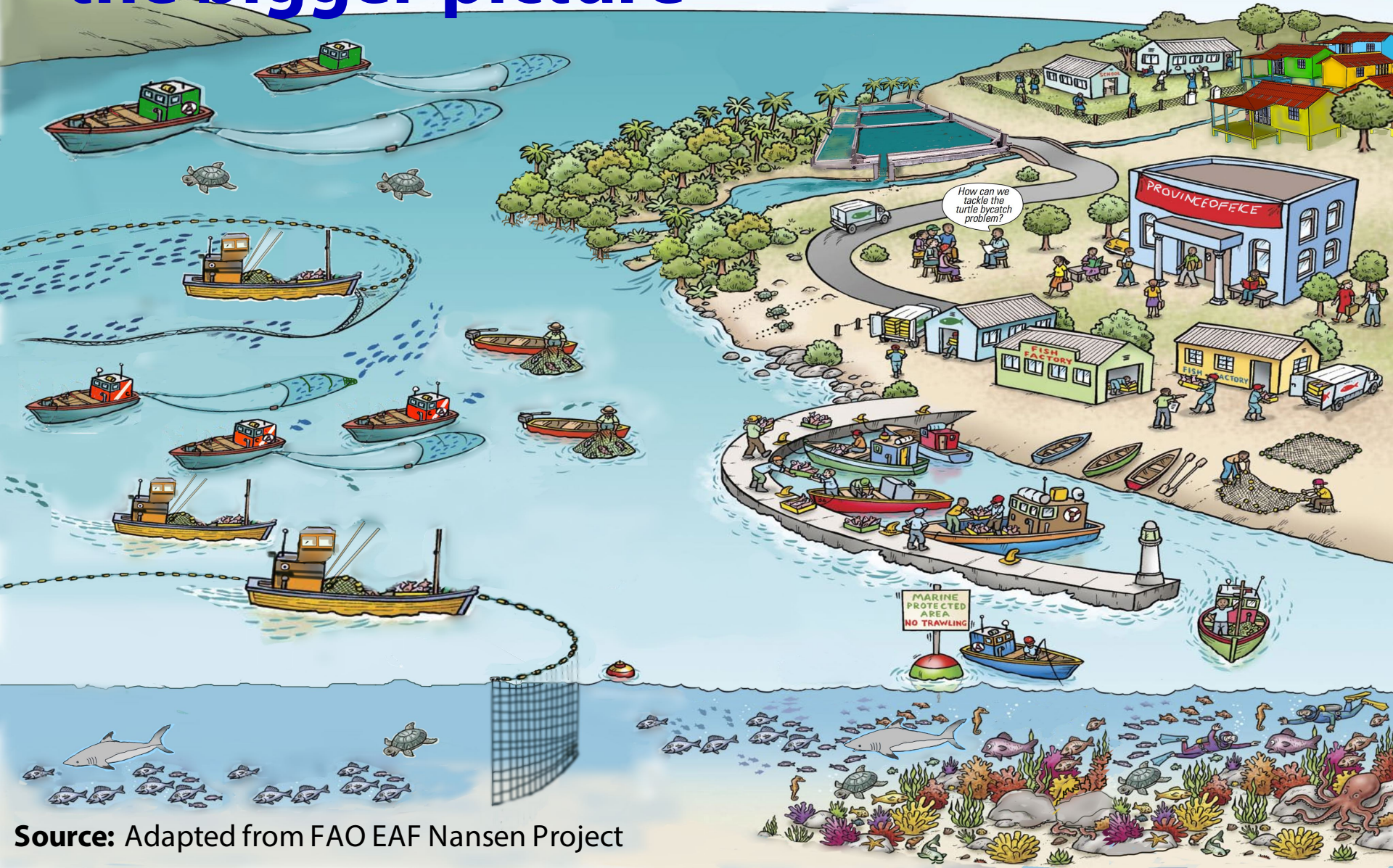


Norad



USAID | ASIA
FROM THE AMERICAN PEOPLE

Fisheries ⇨ Ecosystems... the bigger picture



Source: Adapted from FAO EAF Nansen Project



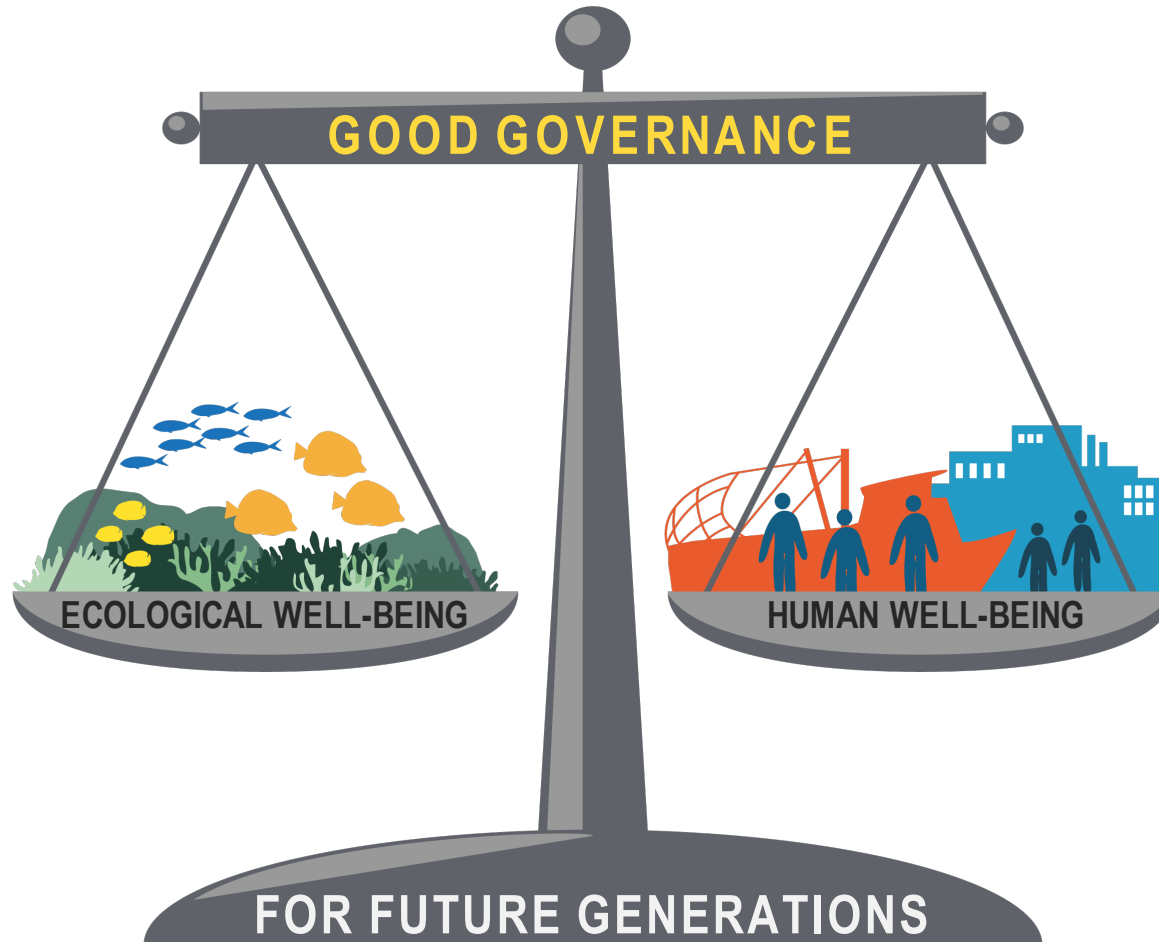
What is EAFM

EAFM is simply the ecosystem approach (EA) applied to fisheries management (FM)

$$\text{EAFM} = \text{EA} + \text{FM}$$

i.e. a practical way to implement sustainable development and sustainably maximize the ecosystem benefits of a fishery system

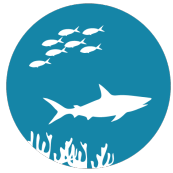
EA promotes sustainable development





The 3 components - in a fishery context

- **Ecological well-being:** e.g. healthy habitats, foodwebs, and sustainable fishing
- **Human well-being:** e.g. Increased & equitable wealth, food security and sustainable livelihoods
- **Good governance:** e.g. effective institutions and arrangements for setting and implementing rules and regulations



EAFM builds on what is in place

- Builds on/improves existing management
- Strengthens agencies through better planning and cooperation
- Builds on and integrates co-management and other participatory approaches
- Uses the traditional and scientific knowledge that already exists
- Improves human capacity in skills needed for sustainable management



EAFM builds on existing fisheries management : “the move towards EAFM”

EXISTING

- target species
- fish focused
- production driven
- managed through control of fishing
- government driven

EAFM

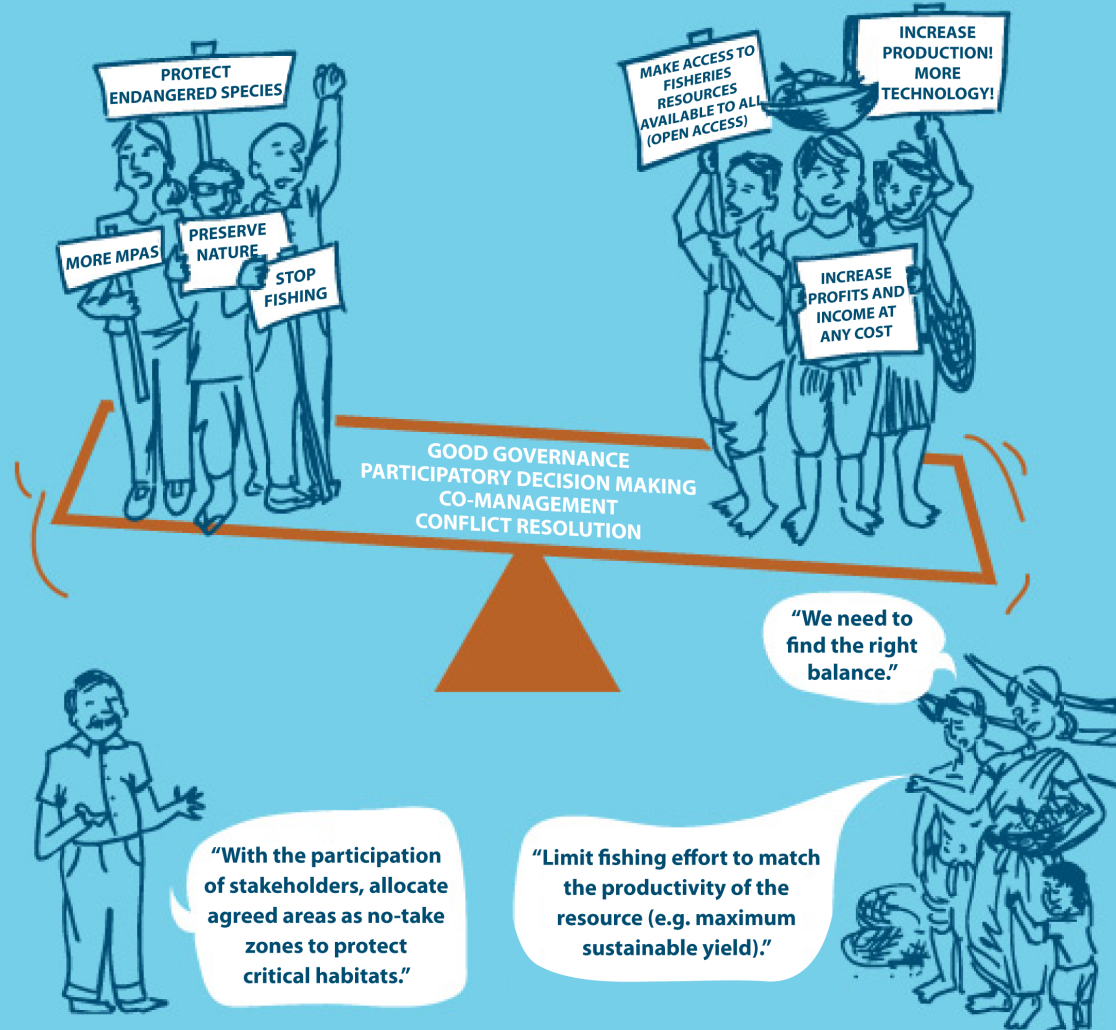
- target and bycatch
- considers habitats
- fishery impacts on the ecosystem
- threats to the fishery from external factors
- good governance/ participatory
- socio-economic benefits

EA/EBM

- integrated management across sectors
- multiple use management

EAFM IS FINDING THE BALANCE

BALANCING HUMAN WELL-BEING AND ECOLOGICAL WELL-BEING



Adapted from ICSF (2013)



Key principles of EAFM



1. Good governance



2. Appropriate scale



3. Increased participation



4. Multiple objectives



5. Cooperation & coordination



6. Adaptive management

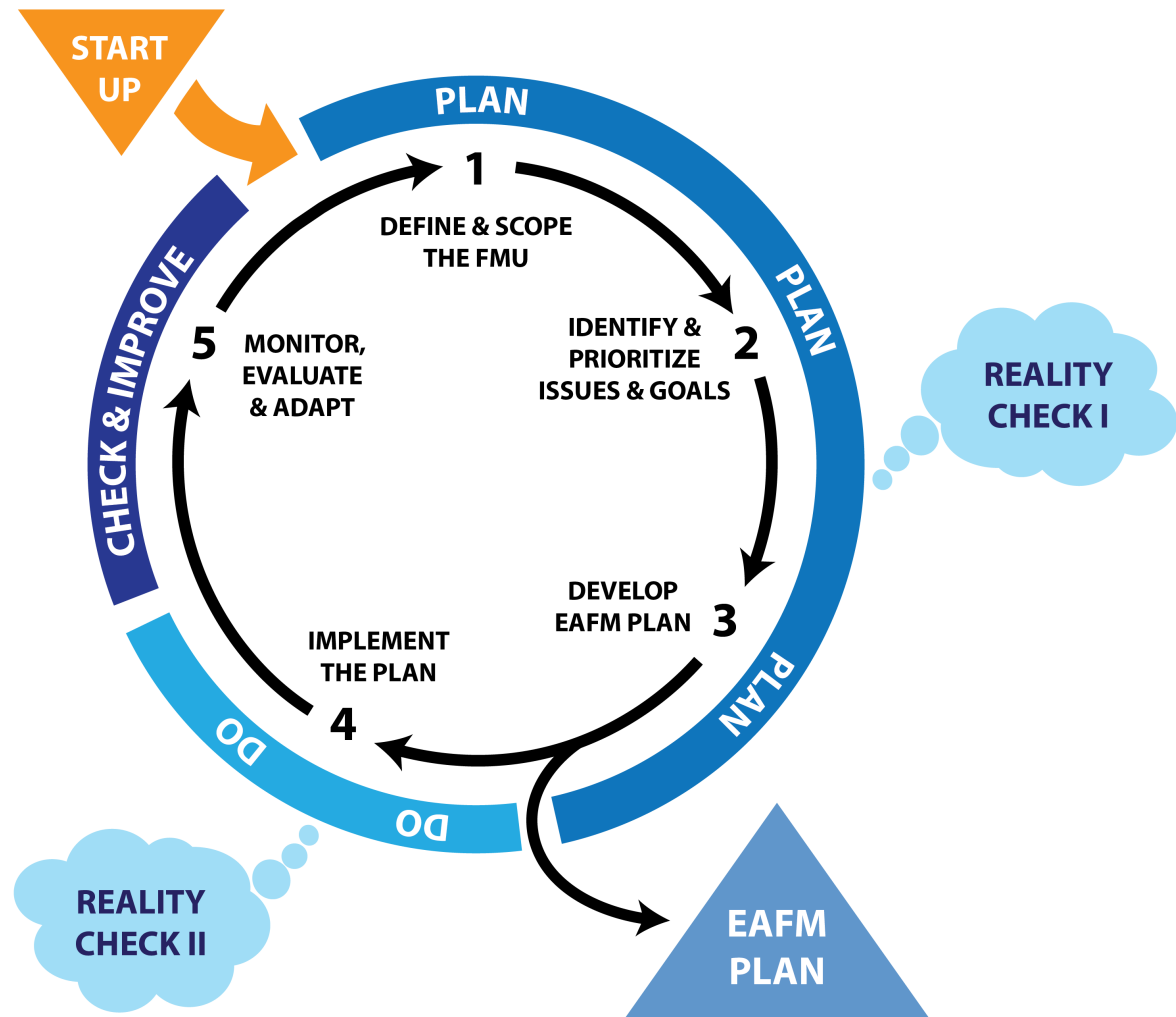


7. Precautionary approach



EAFM process overview

The 5 steps of EAFM





Startup A

A. Prepare the ground

- Identify who should be involved
- What is planned to happen (plan for the process)
- Decide on the general location



Startup B

B. Stakeholder engagement

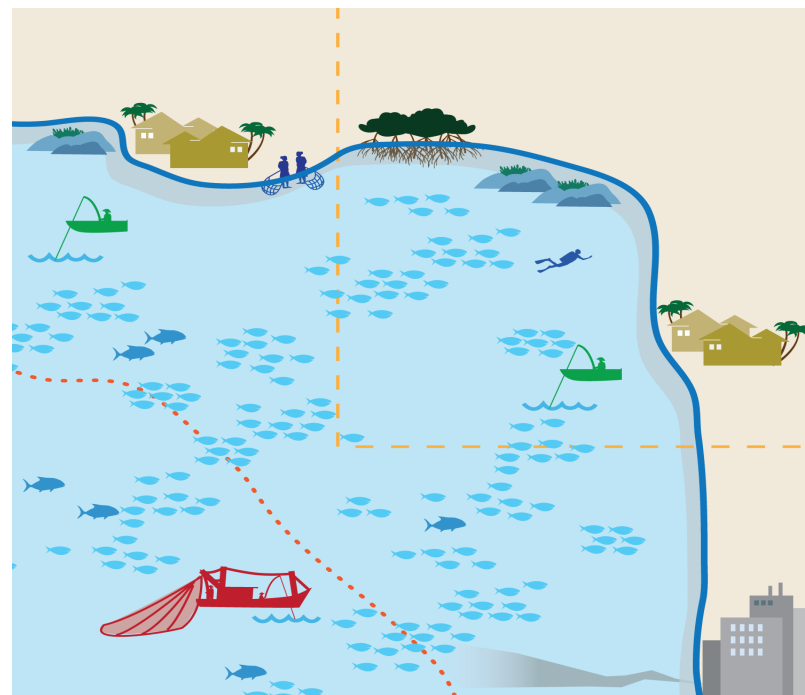
Engage stakeholders for:

- Participatory planning
- Co-management

Step 1

Define and scope the Fisheries Management Unit (FMU)

- 1.1 Define the FMU
- 1.2 Agree the FMU vision
- 1.3 Scope the FMU



Provides background information and a vision



Step 2

Identify & prioritize issues & goals

Identifies the high priority issues and sets goals

- 2.1 Identify threats & issues
- 2.2 Prioritize issues
- 2.3 Define goals for EAFM plan

Problem tree

A diagram which traces the causes and effects of problems

Driver

Poverty

Effect

Low income and high debt

Core problem

Low catch of blue swimming crab

Main causes

Catch small size of crab

Catch spawning crab

No limit on the number of collapsible crab trap in one fishing trip

Causes

Using small mesh net for crab trap





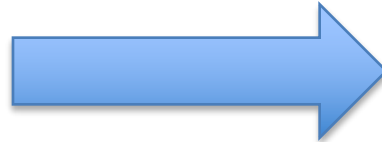
Problem tree (contd.)

Effects



Goals

Core problems



Objectives

Causes



**Management
actions**



Reality check I

**Are the goals
achievable?**

Reality check I

- Constraints & opportunities**
- Facilitation / skills**
- Conflict management**



Step 3

Developing the EAFM plan

- 3.1 Develop operational objectives
- 3.2 Develop indicators & benchmarks
- 3.3 Management actions
- 3.4 Identify sustainable financing
- 3.5 Finalize the EAFM plan

**Develops the
management
framework**



Step 4 Implement

4.1 Formalize, communicate and engage

Implements the plan through formalizing and communicating it



Reality check II

**Checks whether
the governance
and supporting
structures are in
place**



Reality check II

- Governance**
- Co-management**
- Supportive environment**



Step 5

Monitor, evaluate, adapt

5.1 Monitor & evaluate (M&E)
performance of management
actions

5.2 Adapt the plan based on
M&E

**Completes the
EAFM cycle with
M&E and adapts
the plan to start a
new cycle**



EAFM cycle

Planning – Steps 1-3

1. Define & scope
2. Issues & goals
3. Objectives, indicators, management actions & compliance, financing

Doing - Step 4

4. Implement

Checking & improving - Step 5

5. Monitor, evaluate and adapt



VISION

Ecological Well-being

- Main Issue (s)
- Goal(s)
- Objectives
- Indicators and Benchmark
- Management Actions

Good Governance

- Main Issue
- Goal
- Objectives
- Indicators and Benchmark
- Management Actions

Human Well-being

- Main Issue
- Goal
- Objectives
- Indicators and Benchmark
- Management Actions

Compliance

Finance







The sub-steps

5.1 M&E

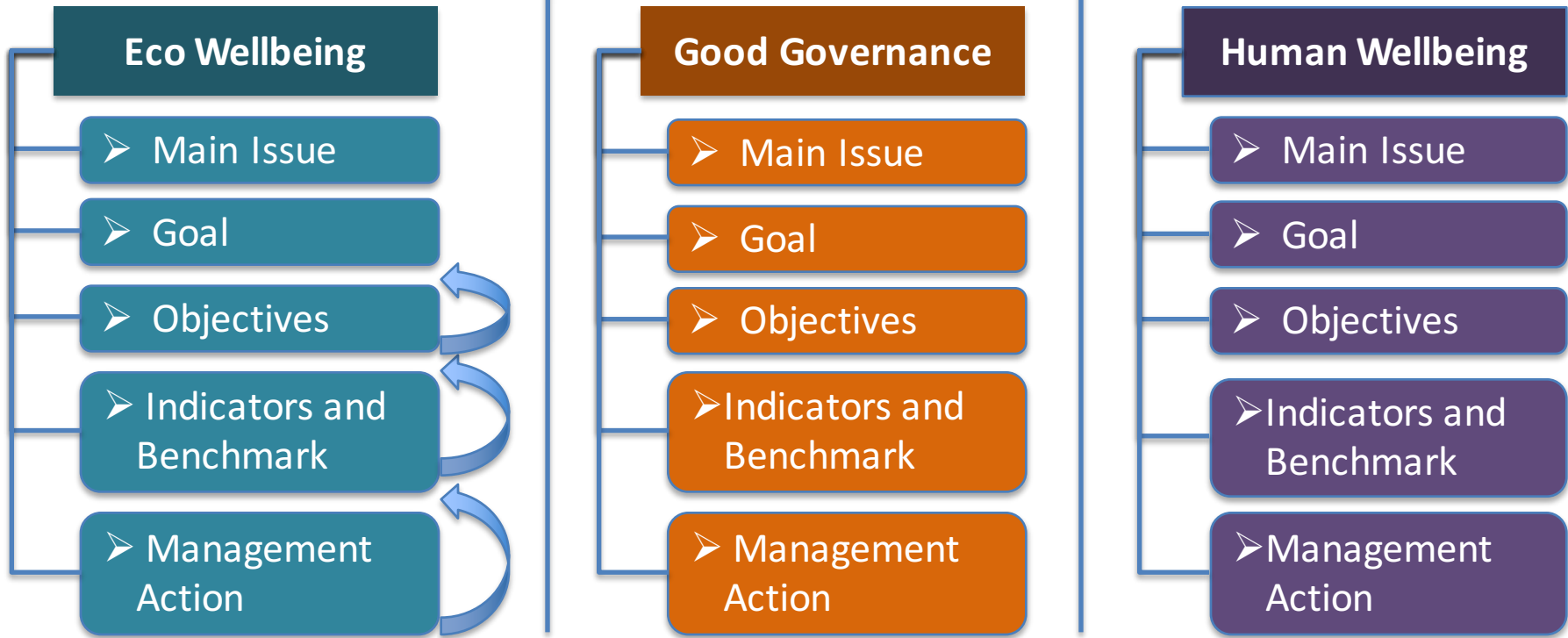
- Monitor: Collect data (focus on indicators)
- Evaluate: Collate results of monitoring and evaluate management performance against benchmarks, and report

5.2 Review and adapt the EAFM plan

- Review: Regular reviews of the plan
- Adapt: Adapt the plan as required



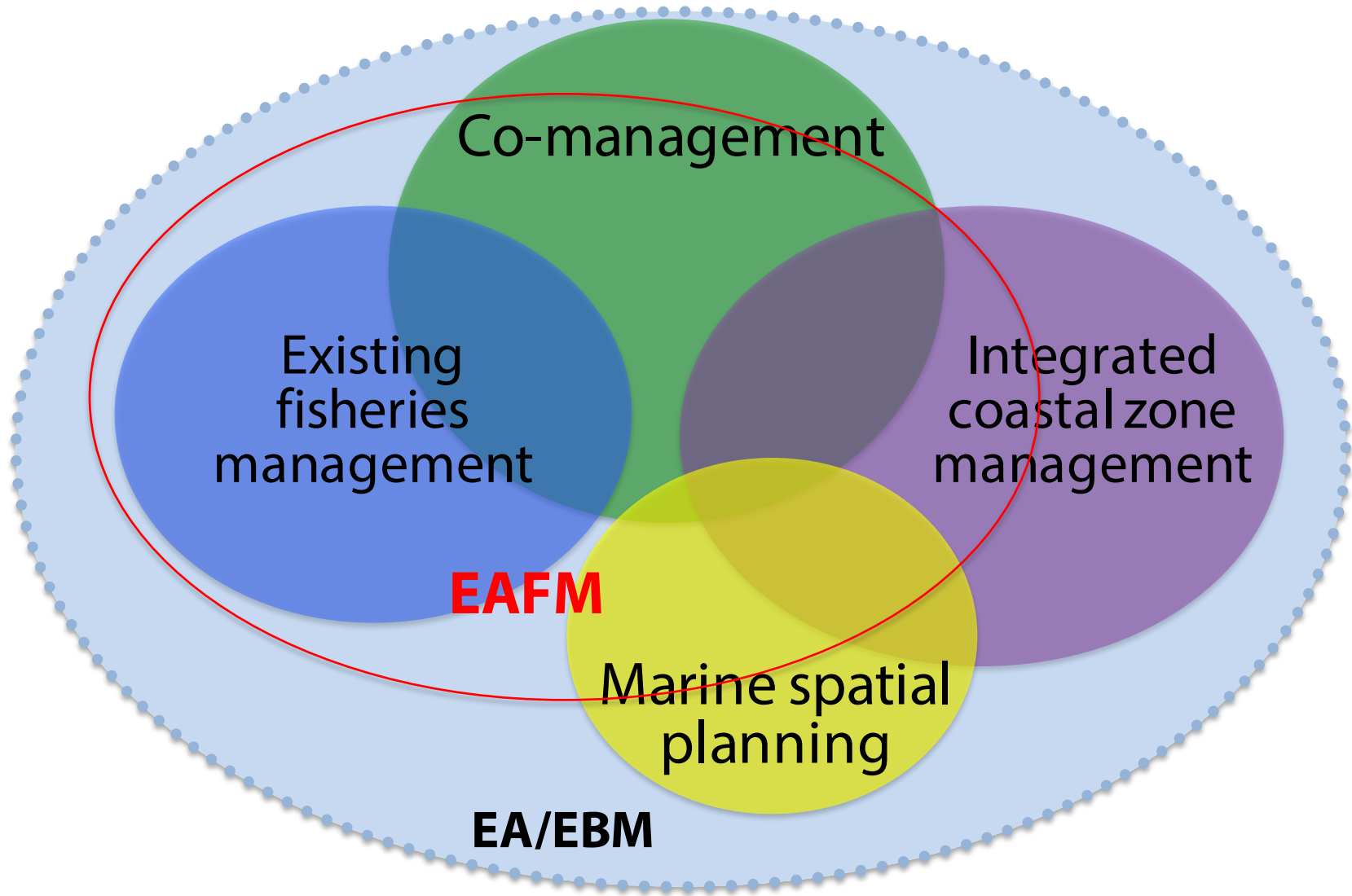
VISION



Compliance

Finance

EAFM complements other approaches



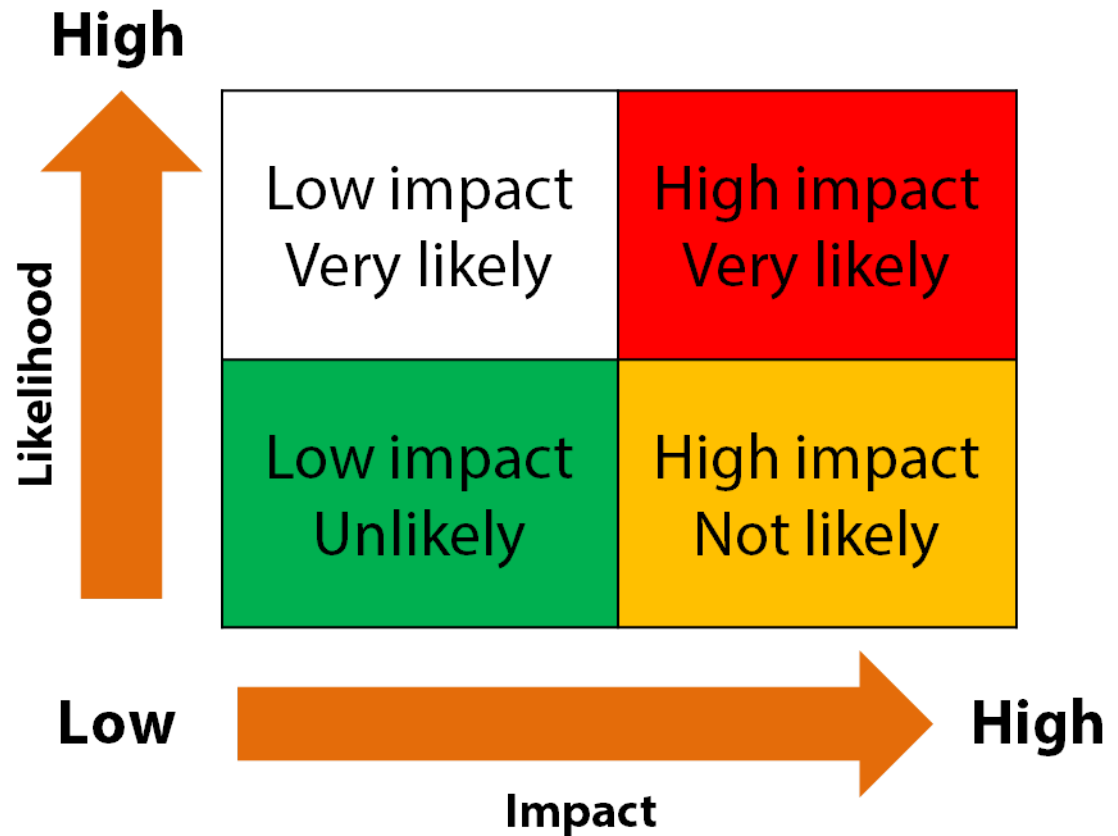
Prioritization based on risk

Impact

-how much change would occur

Likelihood

-probability of it occurring



Problem tree (contd.)

A diagram which traces the causes and effects of problems

