



Session 2

Inland fisheries management and the ecosystem approach

Essential EAFm training
Date | Place



Session objectives

After this session you will be able to:

- Realize that a broader management approach is required to address the many threats and issues facing inland fisheries
- Recognize how ecosystems benefit human societies
- Describe the concept of the ecosystem approach (EA)
- Explain some of the benefits of using an EA



What is Fisheries Management?

Fisheries management: “An integrated process that aims to control fishing activities to improve the benefits that society receives from harvesting fish”.

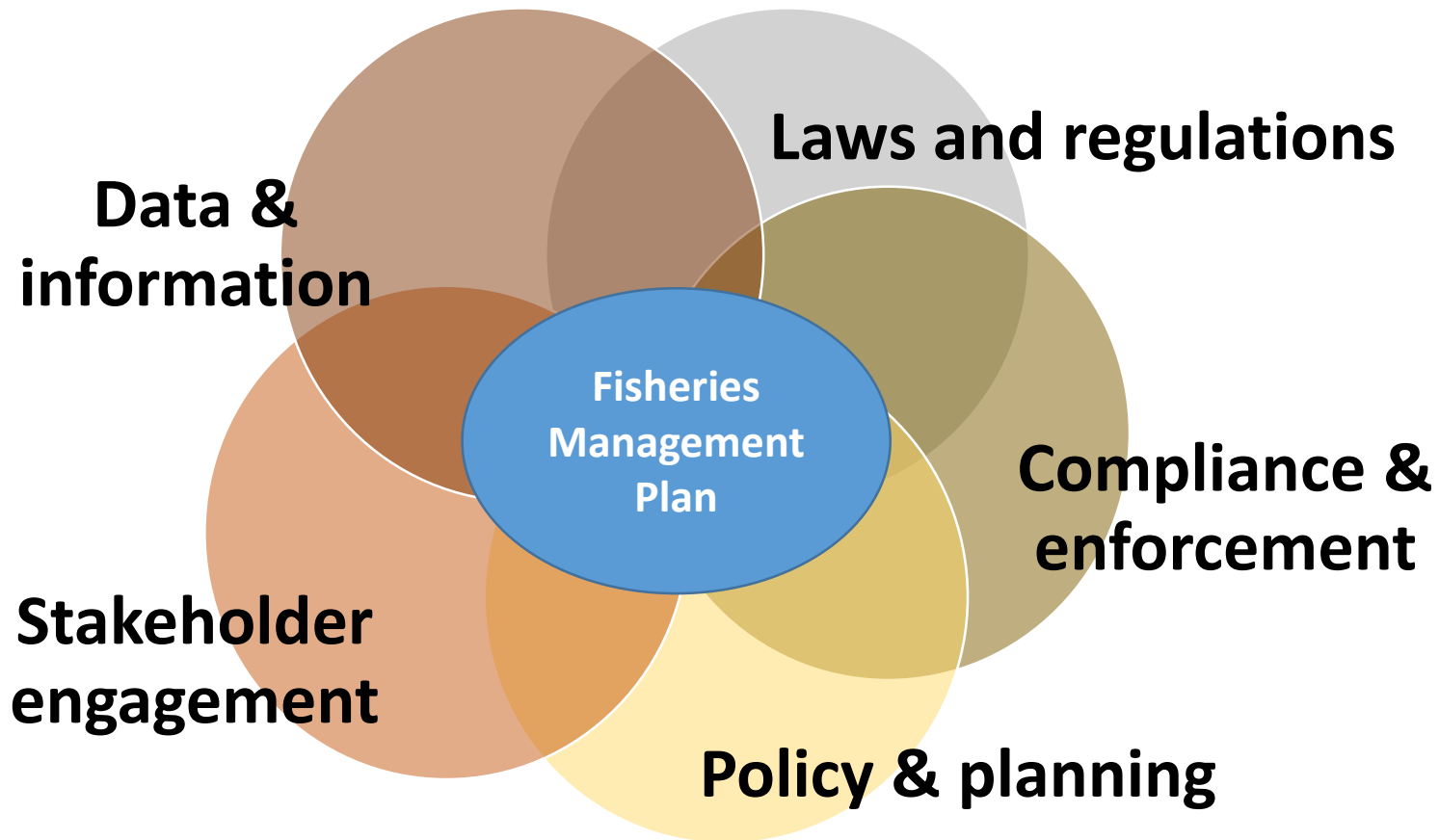
Adapted from FAO

The many threats and issues identified in Session 1 require management to:

- minimize their impact and
- improve the benefits to society

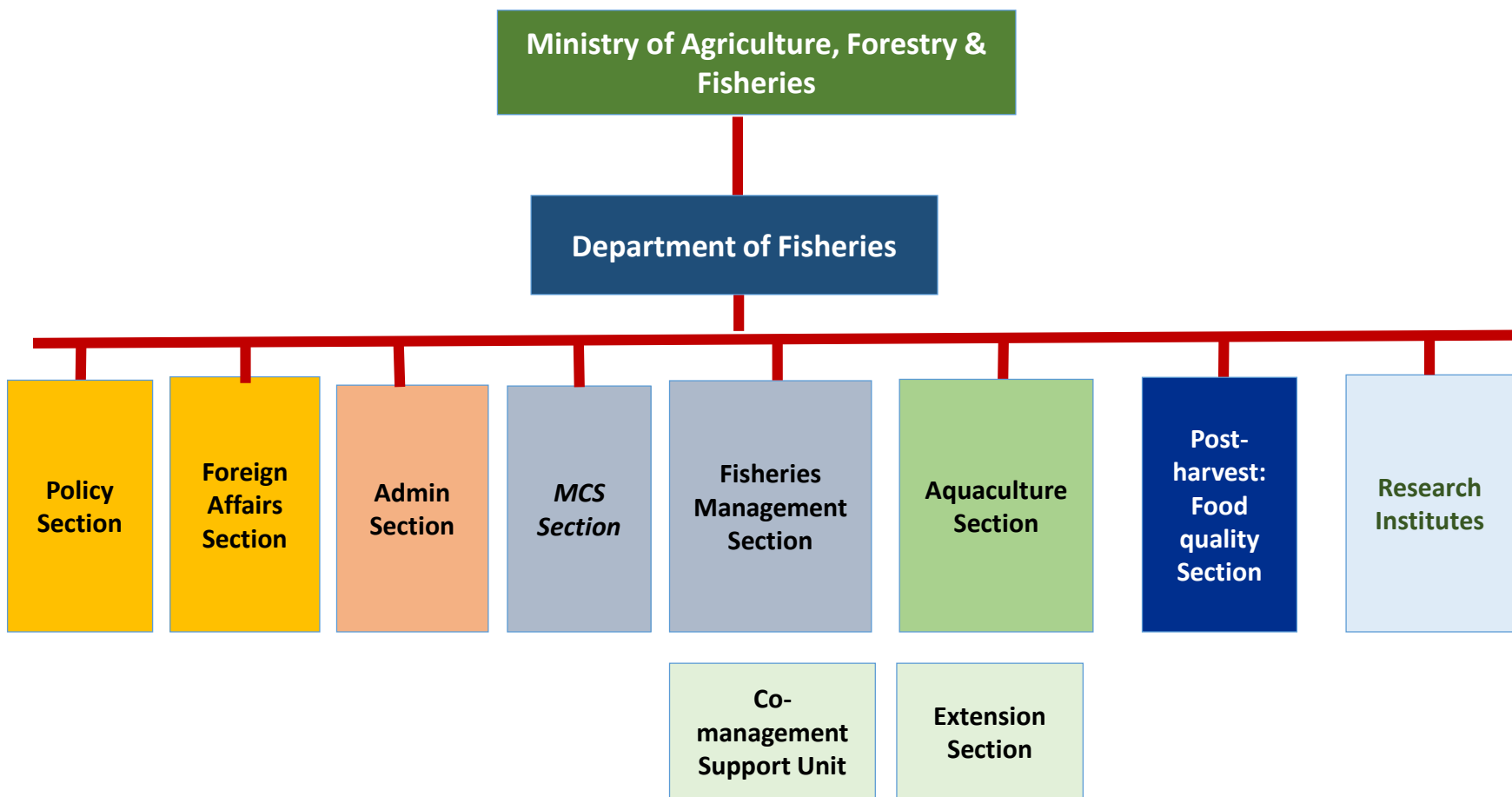


Components of fisheries management





Fisheries Agency structure





What are the roles of a fisheries manager?

Person (or persons) who coordinates all the activities of fisheries management for a given fishery:

- informed decision making
- formulation and implementation of rules and regulations
- compliance and enforcement
- allocation of resources
- negotiation



Typical, existing fisheries management

Possible characteristics:

- Mainly focused on target species & stock assessment
- Single sector specific (fisheries)
- Mainly control of fishing (e.g. gear restrictions, seasonal closures, conservation zones)
- Based on biological objective e.g. maximizing production



Group activity

1. Discuss what you know about existing fisheries management in your country

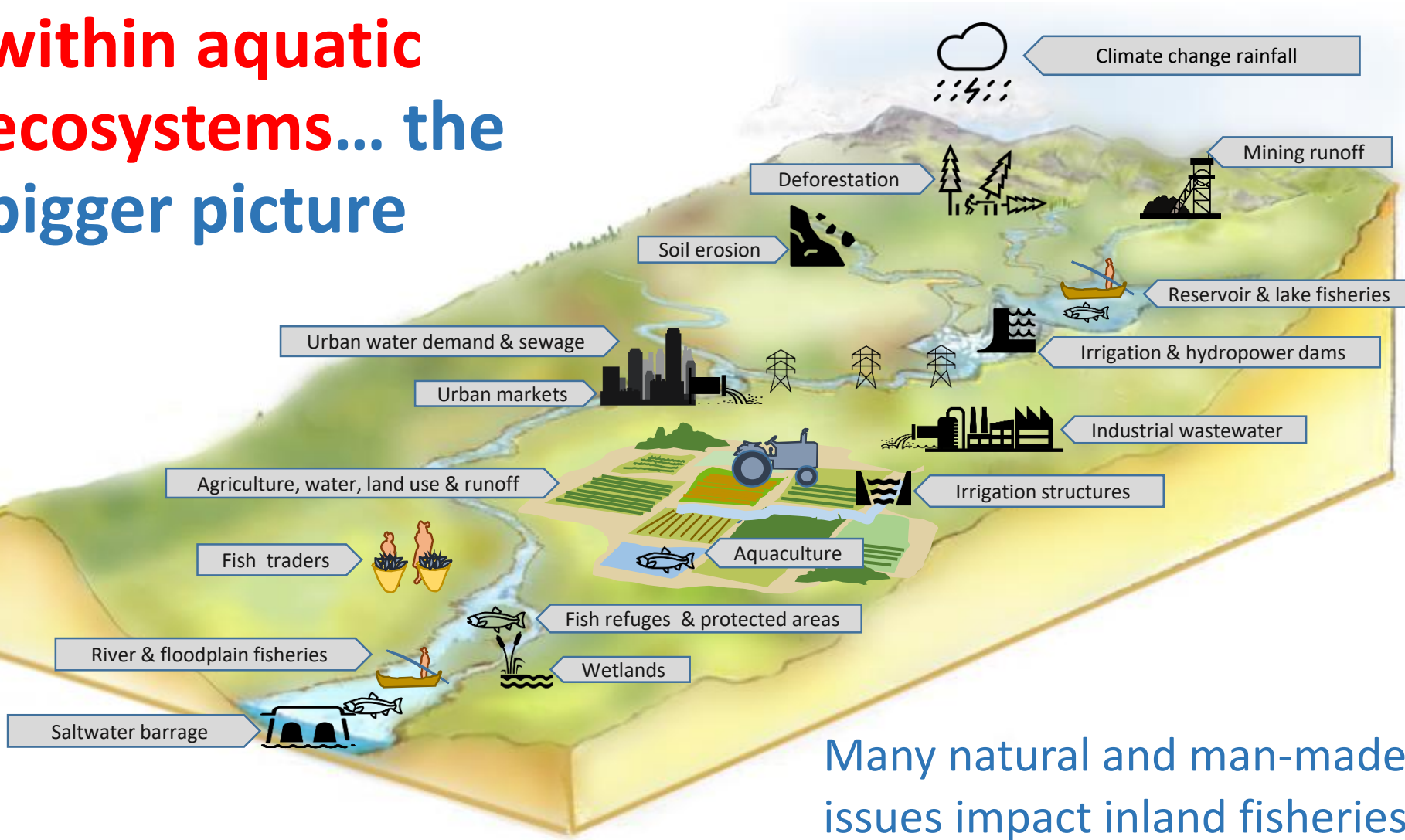
2. Sort the threats and issues identified earlier into:
 - i. Those that can be addressed by existing fisheries management (e.g. with a tick); and
 - ii. others.



Conclusions: existing fisheries management has some gaps

- Fishery resources are seriously degraded in the region with many issues
- Existing fisheries management does not cover all threats and issues and can often fail
- A broader and more inclusive approach is needed that builds on existing management

Inland fisheries lie within aquatic ecosystems... the bigger picture



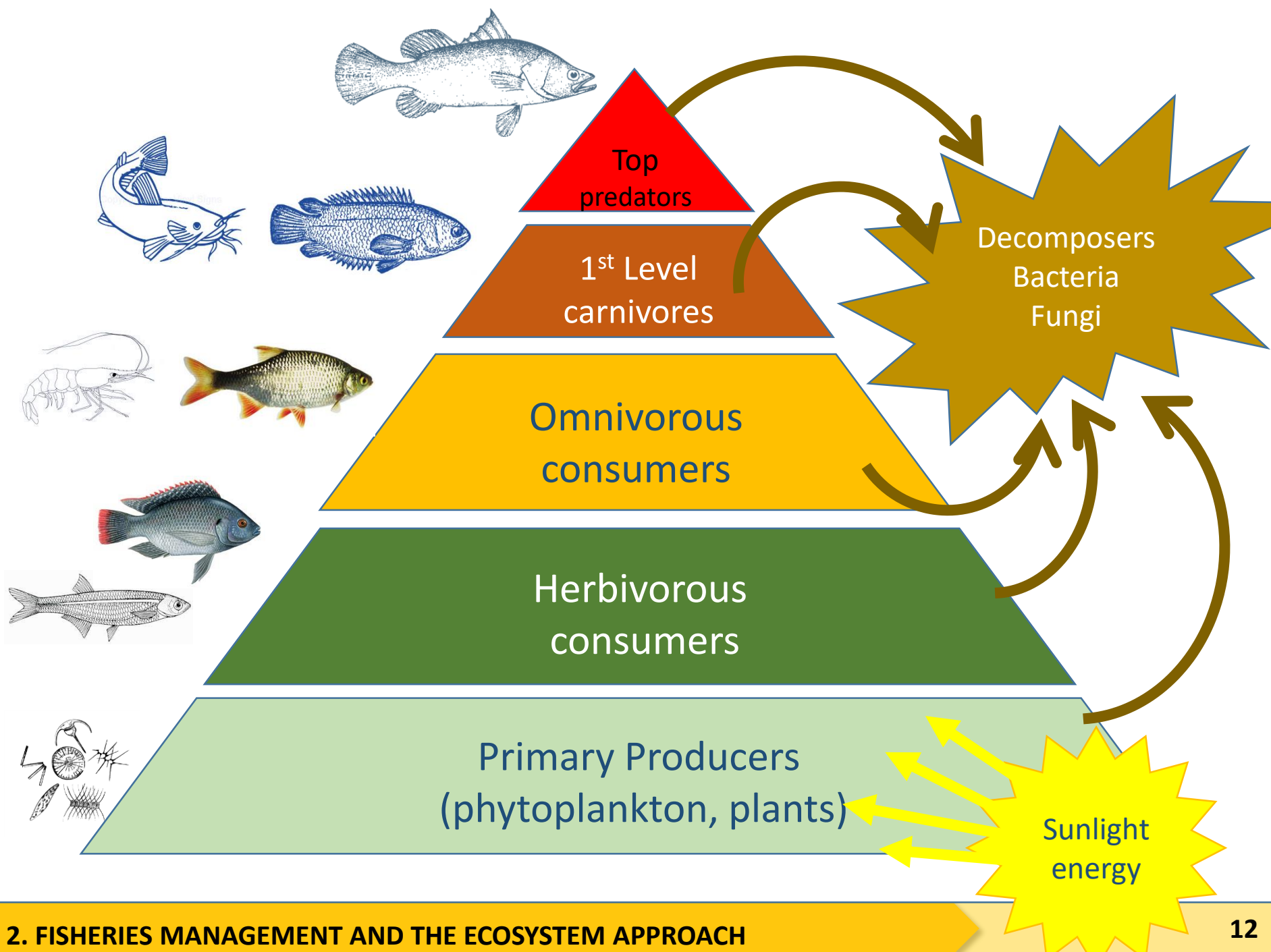
Many natural and man-made issues impact inland fisheries
Can you think of any others?



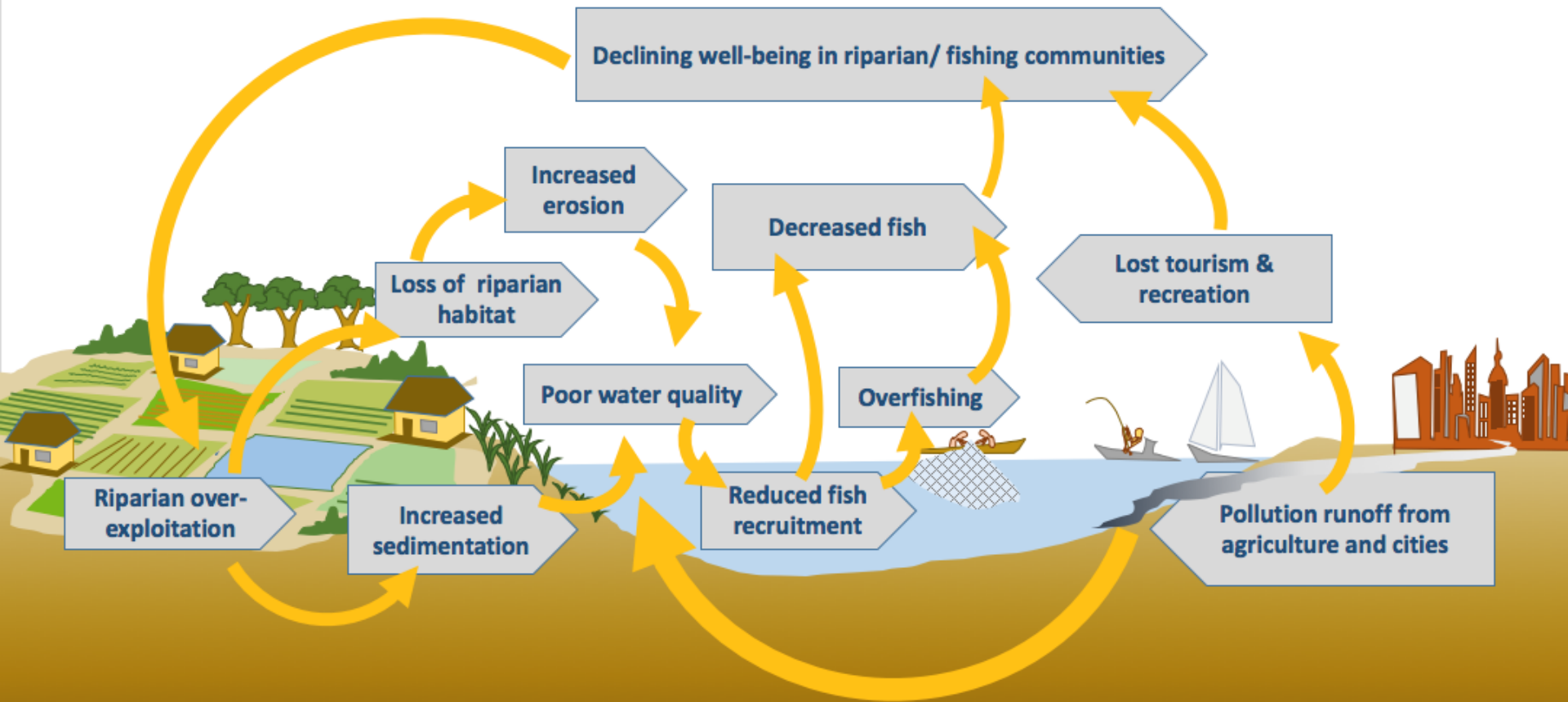
What is an ecosystem?

“An ecosystem can be defined as a relatively self-contained system that contains plants, animals (**including humans**), micro-organisms and non-living components of the environment as well as the **interactions** between them.”

SPC (2010)



Ecosystem Linkages





Ecosystem services & benefits

- **Supporting** – e.g. food webs of plants and animals
- **Provisioning** – e.g. supply of fish for animal and human food
- **Regulating** – e.g. coastal protection and resilience against variability and change, as well as natural disasters
- **Cultural** – e.g. recreation, cultural and traditional heritage values



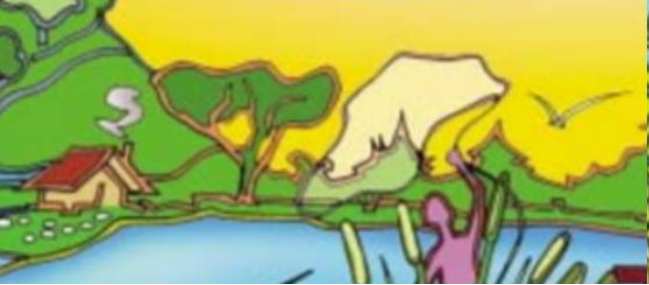
Ecosystem approach (EA)

A strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way (CBD 2000)

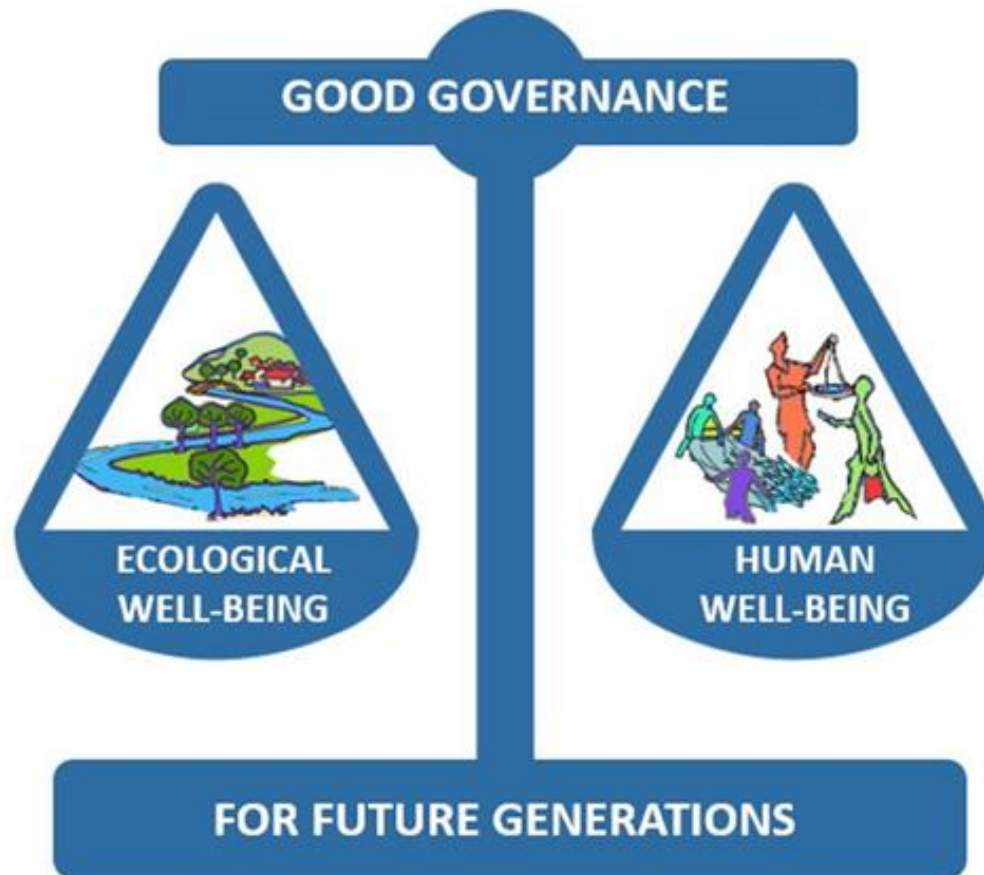
The balance of conservation with sustainable use in an equitable way underpins the concept of sustainable development

Note: EA is often called ecosystem-based management (EBM)





Sustainable Development





The 3 components of sustainable development

- **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



Sustainable development

“Development which meets the needs of the present without compromising the ability of future generations to meet their own needs.”

The **ecosystem approach** is a practical way to implement **sustainable development**.



Activity

Plenary brainstorm:

What are the benefits of taking an ecosystem approach?

Tip: keep in mind that we are trying to promote sustainable development



What are the benefits of an Ecosystem Approach?

- Integrated approach that allows trade-offs when balancing human and ecological well-being
- Allows adaptive management – leading to more effective planning
- Increase in stakeholder participation



What are the benefits of an Ecosystem Approach? (cont.)

- Provides a way to consider large-scale, long-term issues (e.g. climate change)
- Increased political support
- Access to finances resources



Key messages:

- Threats and issues to sustainable fisheries are broad in scope
 - a number fall outside existing fisheries management
 - a broader approach is needed
- EA is about integrative management across land, water and living resources
- EA is a way of implementing sustainable development that promotes:
 - balancing ecological well-being with human well-being through good governance