

# Developing capacity in the Ecosystem Approach to Aquaculture Management (EAAM)



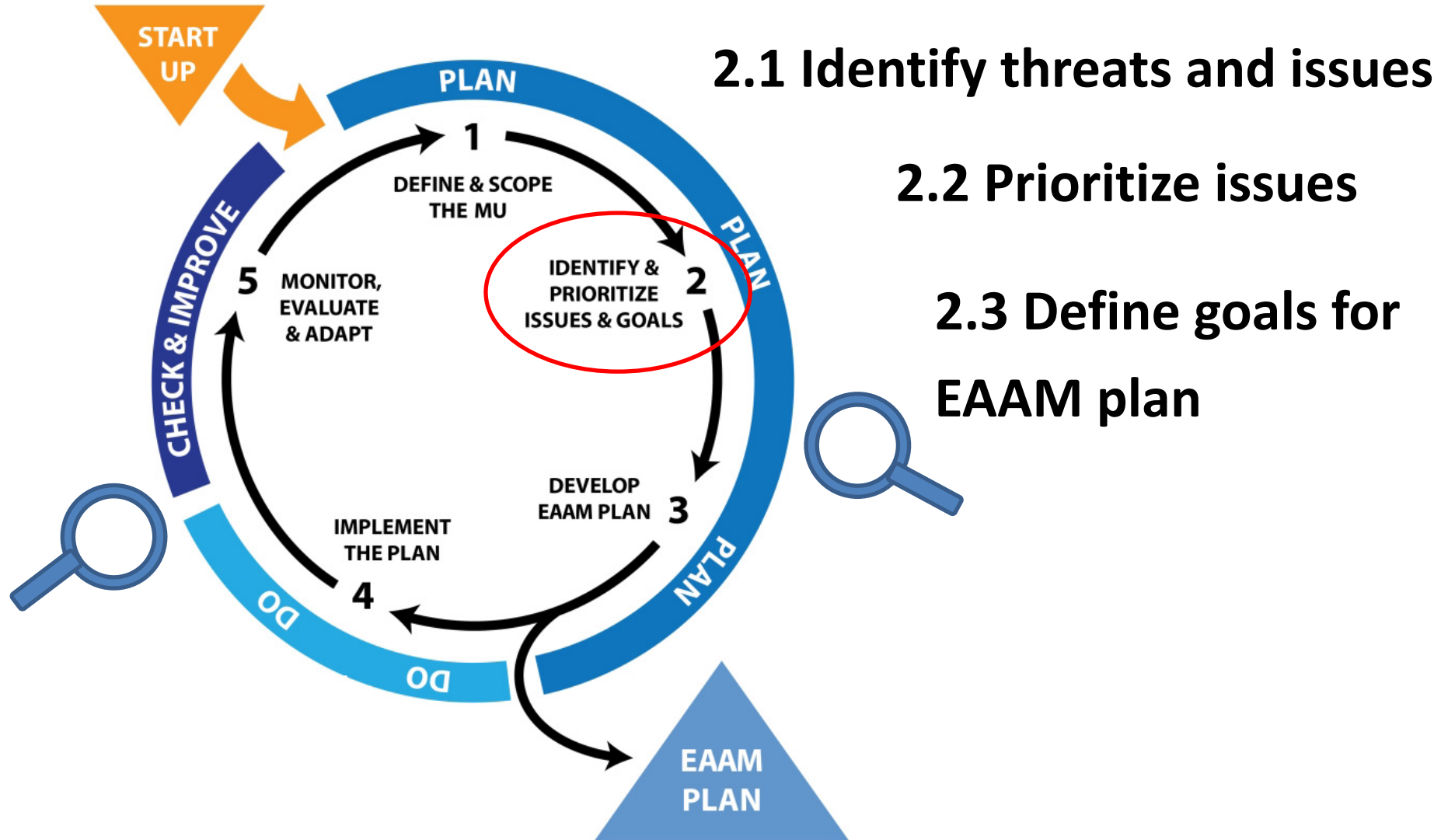
# Module objectives



*After this session you will be able to:*

- Identify issues
- Define goals
- Prioritize issues

# Step2 Identify and prioritize issues and goals



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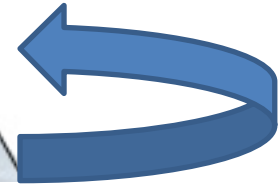
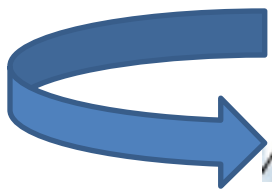
Plan

Vision

Goals

Goals

Informed decisions



participation

## 2.1 Identify threats & issues for the MU

- What are the specific threats & issues for the MU?
- Many tools can be used for this task
- Cover all 3 EAAM components:

Ecological

Governance

Human

## 2.1 Identify threats & issues for the MU

Ecological

Human

Governance

- Resources quality and access
- Externalities/pollution
- Loss of habitat
- Farmed species - biodiversity
- fishmeal
- Ecosystems
- Climate change
- Impacts from aquaculture to environment/other activities
- Impacts to aquaculture by other activities

## 2.1 Identify threats & issues for the MU

Ecological

Human

Governance

- Socio-economic benefits and disadvantages
- Food security
- Livelihood
- Social equity
- Gender empowerment
- Education
- Health
- Conflicts
- Indebtedness
- Vulnerability

# 2.1 Identify threats & issues for the MU

Ecological

Human

Governance

- the management and institutional systems ruling aquaculture
- the issues in delivering the proposed outcomes
- access and tenure systems
- Compliance/enforcement
- Markets
- institutional arrangements
- constrains or conflict for resources with other sectors such as:
  - Agriculture
  - Forestry
  - water management



# Activity 19: Identify threats & issues for the MU

Considering the threats and issues that were developed earlier in the course.....

- Identify the specific threats & issues for your MU?
- Write one on each card
  - Be sure to include all 3 EAAM components
  - Use a different colour card for each component



## 2.2 Prioritizing issues

- Stakeholders may generate a long list of threats & issues
- Need to prioritize, as they cannot be managed all together

Many tools to prioritize them:

Use a tool to sort them, for example:

- Simple ranking
- Risk assessment



# Risk assessment

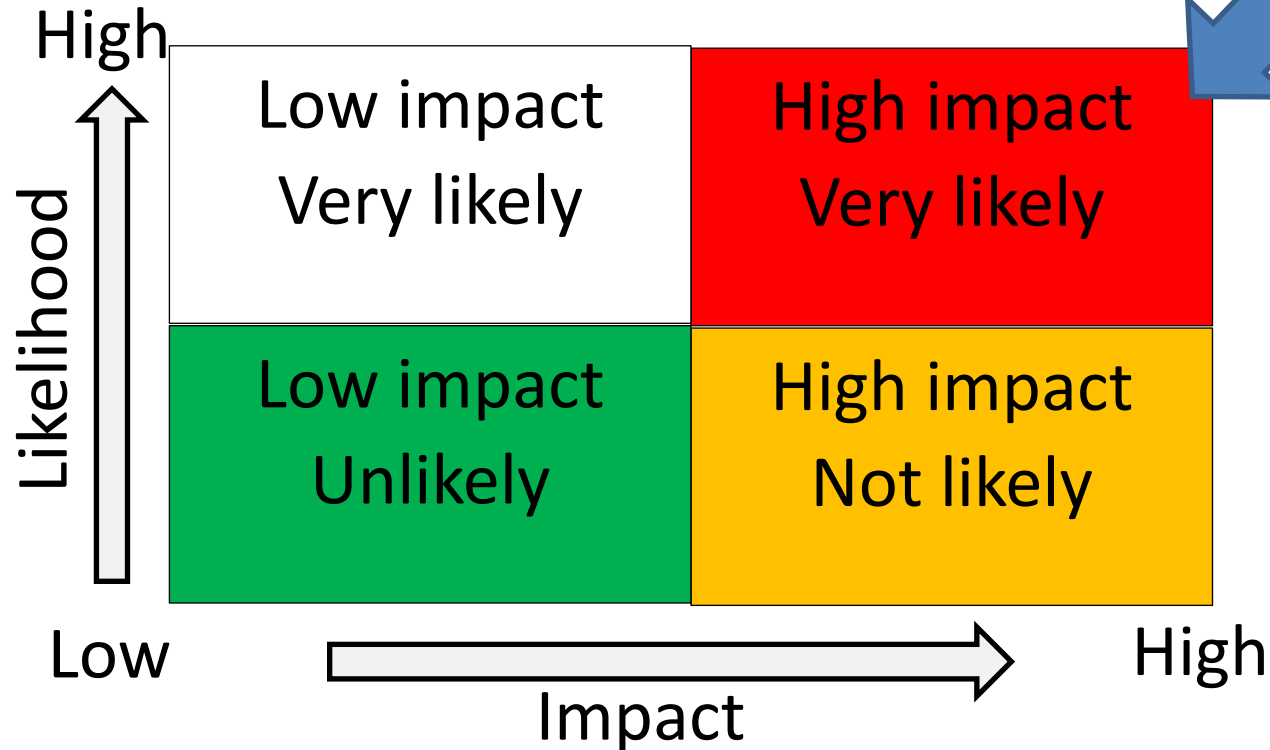
A risk analysis typically seeks answers to four questions:

- What can go wrong? (Risk)
- How likely is it to go wrong? (Likelihood)
- What would be the consequences of it going wrong? (Impact)
- What can be done to reduce either the likelihood or the consequences of it going wrong? (Action)

**Remember → Risk = Likelihood x Impact**

# Risk assessment

*Issues to consider  
for EAAM process*



**Likelihood**  
probability  
of occurring

**Impact** how much change would occur

# Activity 20: Prioritizing threats & issues for the MU

Take the issues and plot them on a 2x2 matrix and then identify the ones that are high risk.

**Impact vs. likelihood (HI/HI – LO/LO)**

Take the HI/HI risks and group them under the 3 EAAM components.



# Causes and effects

- When there are a wide variety of threats & issues
  - Some may be broad (e.g. climate change, environment pollution)
  - Some may be specific (e.g. farm pollution)
- Broad issues usually cannot be managed under an EAAM plan
- The “**problem tree**” is a very helpful means to classify the wide number of issues identified .

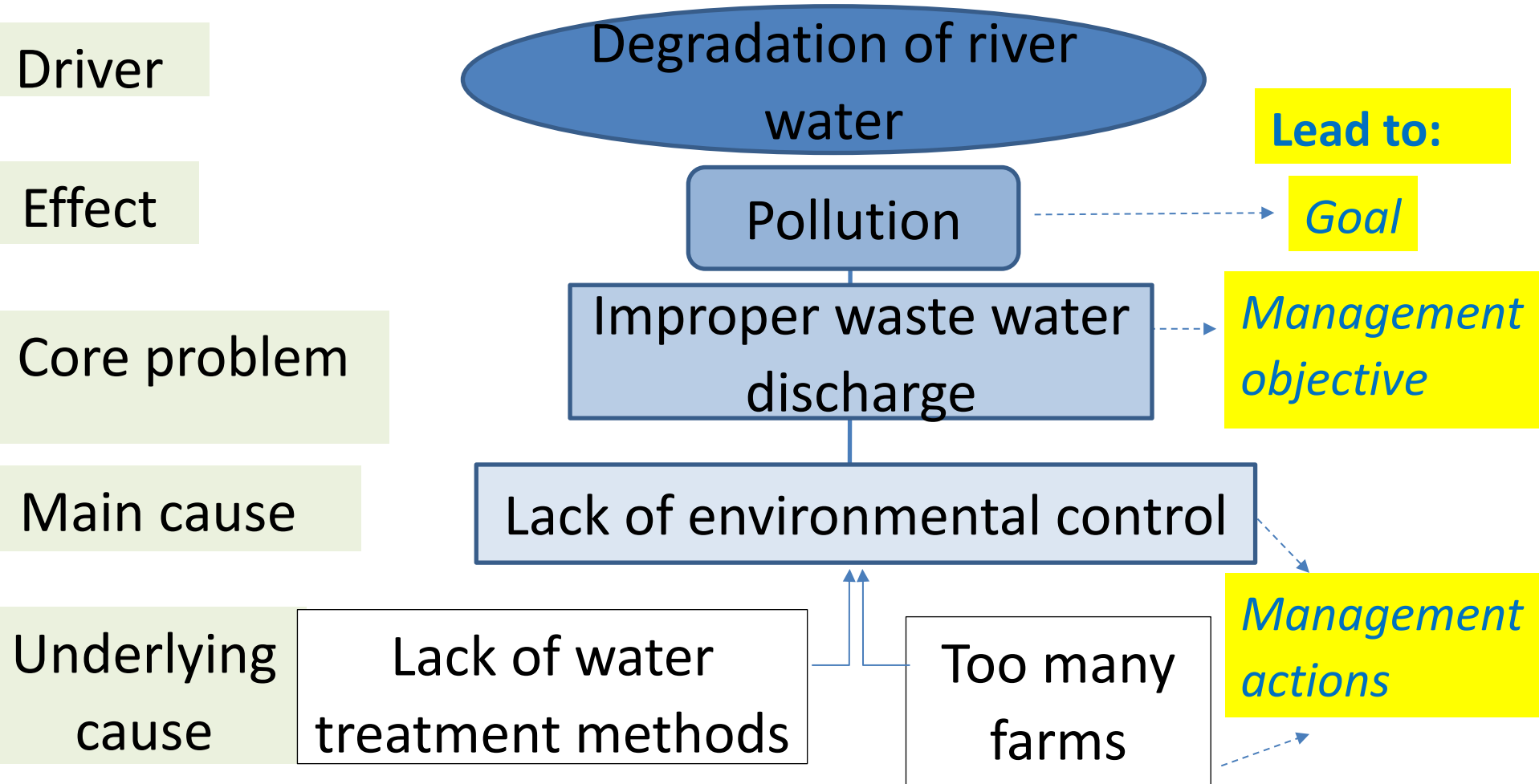
# Problem tree

The **problem tree** can categorize four levels of issues:



1. **Drivers:** these are large-scale events that have a trickle-down effect on many issues (e.g. growth in population and wealth, climate change).
2. **Effect:** The effect that the core problem creates;
3. **Core problem:** the actual problem;
4. **Causes:** the cause of the problem. These can be broken down further into main and underlying causes.

# Problem tree





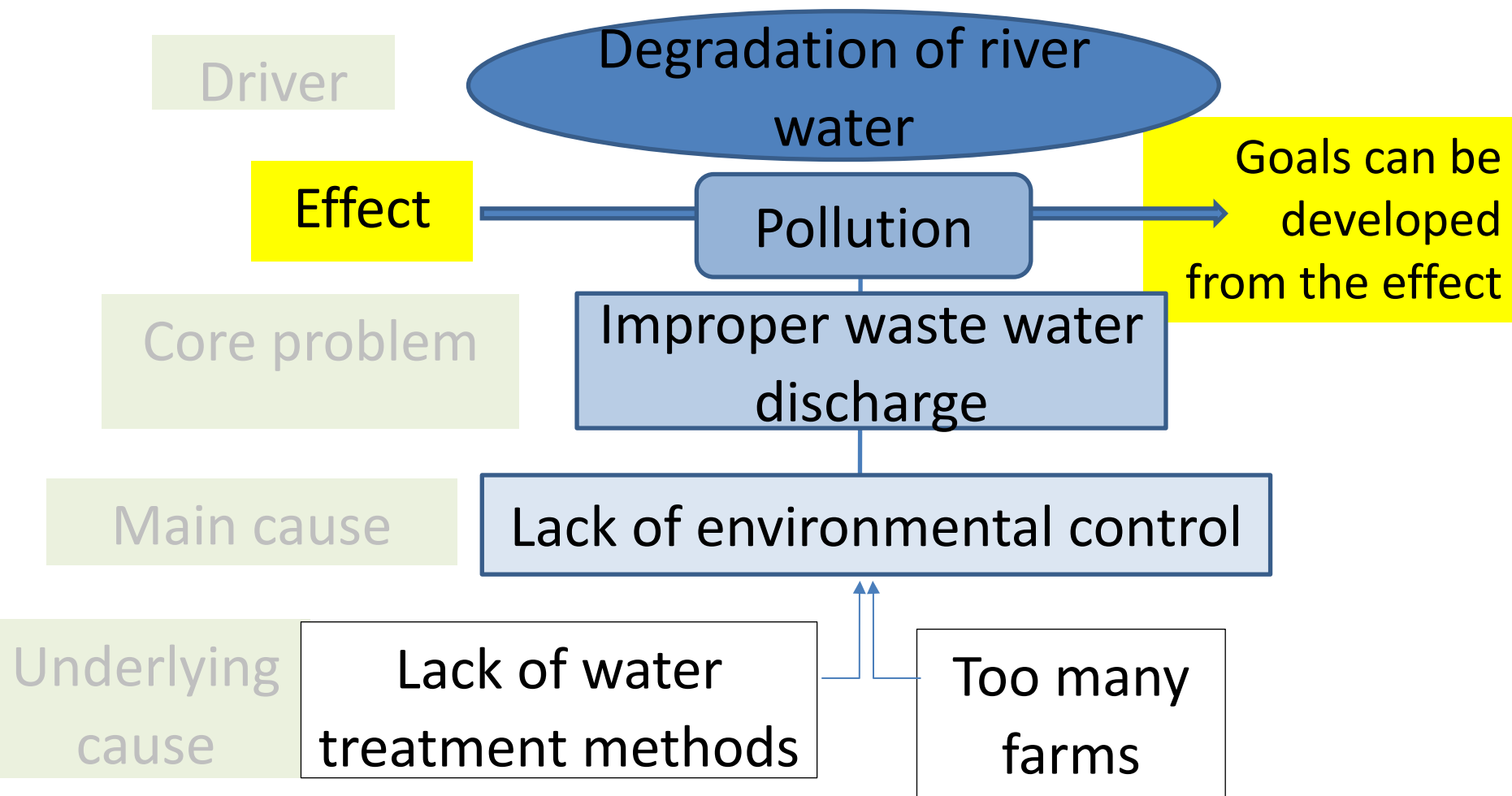
# Activity 21: Causes & effect

Using the high priority threats & issues...

- Divide the issues into 4 levels on a flip chart  
→ *drivers, effects, core problem, and causes*
- Some issues may be too broad (e.g. pollution) and may need to be made more more specific.
- Don't worry too much if a given issue is hard to categorise. We will revisit later

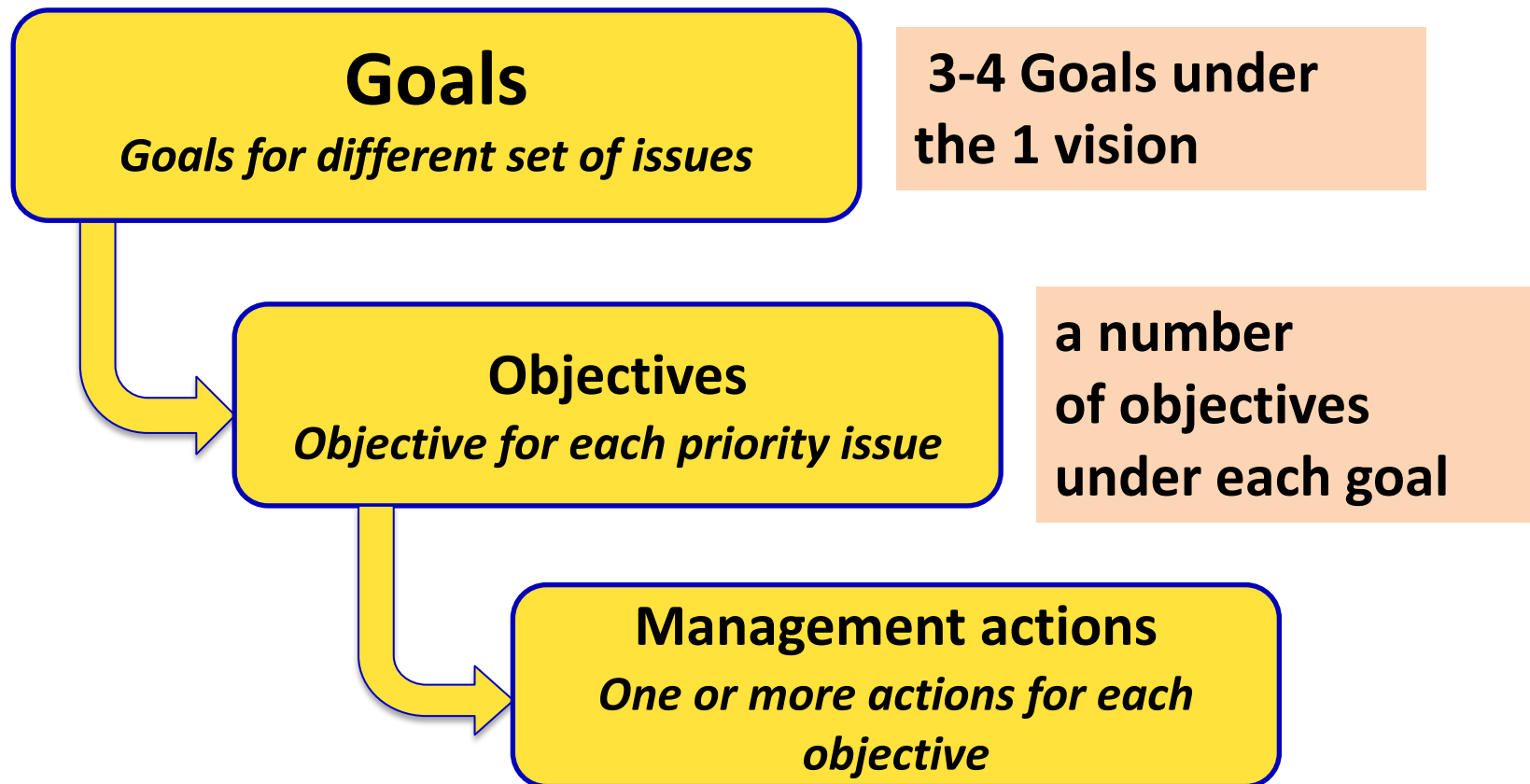


## 2.3 Define goals for the EAAM



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*A goal describes what the MU should look like in the future*



## 2.3 Define goals for the EAAM

**Example goals are:**

### Environment

- Improved production with better use marine and freshwater resources;

### Human

- Improved livelihoods of communities that are dependent on the aquaculture resources; and

### Governance

- improved governance of aquatic resources in synergy with other sectors



## Activity 22: Setting Goals

Consider the effects identified in the problem tree

Set goals for each EAAM components



# Key messages

## In Step 2:

- Issues are prioritized so that only the most important are addressed in the EAAM plan;
- Need to identify drivers, effects, core problems and causes to assist setting goals, objectives and effective management actions;
- Based on the effects for the prioritized issues, goals can be agreed for EAAM components



# EAAM Plan outline

*Now finished Step 2.*

*We can use the results in the EAAM plan*

- **EAAM plan for MU XXXX**

- 1. VISION (Step 1)

- 2. BACKGROUND (Step 1)

- **3. MAJOR THREATS AND ISSUES**

- Ecological issues

- Aquaculture and general environmental issues, including both the impact of aquaculture on the environment and vice versa.

- Social and economic issues

- Issues relating to the people involved in farming, the general public and at the national level, including gender issues.

- Governance issues

- Issues affecting the ability to achieve the management objectives.

- **4. GOALS OF MANAGEMENT**

- Higher level goals, i.e. the ultimate goal of management.



# *Essential* EAAM

To download all materials please visit:

