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ECOSYSTEM APPROACH TO FISHERIES MANAGEMENT (EAFm)

# ESSENTIAL EAFM PARTICIPANT WORKBOOK INLAND FISHERIES



### 1 How to use this workbook

You will work in groups for much of this course, and you will mostly be using cards, pens and paper for group work. It is VERY IMPORTANT that you record all the outputs from your group work. Use the relevant sections of this workbook to write your notes. You will need to refer to many of your outputs for finalizing your draft EAFm plan which you will present on day 5.

This workbook covers the following phases and steps:

| Module<br>numbe<br>r | Step/ phase      | Activity/group work  | Workbook<br>page<br>number |
|----------------------|------------------|--|----------------------------|
| 5                    |                  | Review EAFm continuum for individual fishery and plot for local or country fishery | 5                          |
| 5                    |                  | Identify challenges and opportunities in moving towards EAFm                       | 6                          |
| 8                    | Startup A        | List all FMU stakeholders; plot them onto importance/ influence matrix             | 7-8                        |
| 8                    | Startup A        | Plot your FMU stakeholder  | 9                          |
| 10                   | Step 1.1         | Define your FMU  | 10                         |
| 10                   | Step 1.2         | Agree the FMU vision   | 10                         |
| 10                   | Step 1.3         | Identify type of information needed for scoping                                    | 11                         |
| 11                   | Step 2.1         | Identify threats and issues for your FMU   | 12                         |
| 11                   | Step 2.2         | Prioritize through risk assessment   | 13                         |
| 11                   | Step 2.3         | Develop FMU goals  | 14                         |
| 12                   | Reality Check I  | Brainstorm constraints and opportunities to achieving these goals                  | 14                         |
| 12                   | Reality Check I  | Win-win conflict resolution  | 15                         |
| 13                   | Step 3.1         | Develop operational objectives   | 16                         |
| 13                   | Step 3.2         | Select indicators and benchmarks for objectives                                    | 17                         |
| 14                   | Step 3.3         | Agree management actions and compliance  | 18                         |
| 14                   | Step 3.4         | Agree financing mechanisms   | 19                         |
| 14                   | Step 3.5         | Finalize draft EAFm plan   | 20                         |
| 15                   | Step 4.1         | Implementation   | 21                         |
| 15                   | Step 4.1         | Formalize, communicate and engage  | 22                         |
| 16                   | Reality Check II | Revisit constraints and opportunities to achieving your FMU goals                  | 23                         |
| 17                   | Step 5           | Performance review template  | 24-25                      |

### **EAFm PLAN FOR FMU [NAME]**

### 1. VISION

The broad goal of stakeholders including management.

### 2. BACKGROUND

Description of the area and resources to be managed, including maps at different scales.

### The fisheries management area:

Area of operation of the fishery, jurisdictions and ecosystem "boundaries" (including national/province/district jurisdictions).

• Map of FMU.

### **History of fishing and management:**

• Brief description of the past development of the fishery in terms of fishing gear, targeted species, people involved, etc.

### Current status of the fishery:

- Description of the fishery resources and gears used;
- Resource status;
- Map of resource use patterns.

### **Current management (co-management) arrangements:**

Existing co management arrangements

### **Socio-economic benefits, including postharvest:**

- Description of stakeholders and their interests (including socio-economic status);
- Description of other uses/users of the ecosystem, especially activities that could have major impacts and arrangements for coordination and consultation processes;
- Social and economic benefits, both now and in the future.

### **Special environmental considerations:**

• Details of critical environments, particularly sensitive areas and endangered species.

### **Institutional aspects:**

- Legislative background;
- Existing co-management arrangements roles and responsibilities;
- MCS arrangements;
- Consultation process leading to the plan and on-going activities;
- Details of decision-making process, including recognized participants;
- Nature of rights granted in the fishery and details of those holding the rights;
- Maps of management interventions/user rights/jurisdiction boundaries.

### 3. MAJOR THREATS AND ISSUES

### **Ecological issues:**

- Fisheries resources and general environmental issues, including both the impact of the fishery on the environment and vice versa.
- Water access and use issues. Competing demands for freshwater- irrigation, industry, urban water supply

### Social and economic issues:

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

### Governance issues:

- Issues affecting the ability to achieve the management objectives.
- Conflicting sectoral governance objectives (e.g. reservoir fisheries v irrigation)

### 4. GOALS OF MANAGEMENT

Goals for each component (for different sets of issues)

### 5. OBJECTIVES, TARGETS AND INDICATORS

Priority issues, objectives and targets for the fishery, covering:

- fishery resources;
- environment (including bycatch, habitats, prey protection, biodiversity, etc.);
- social;
- economic:
- governance (ability to achieve the plan).

### 6. MANAGEMENT ACTIONS

Agreed actions for the plan to meet all objectives within an agreed time frame, including, habitat protection, socio-economic benefits, good governance, etc.

Water-use agreements/agreements made with other departments or ministries.

### 7. COMPLIANCE

For actions that require rules/regulations – arrangements for ensuring that the management actions are effective.

Also those actions that others are supposed to implement

### 8. DATA AND INFORMATION NEEDS

Data and information needs to monitor implementation of the plan. Clarify where the data are to be found and who collects, analyses and uses the information.

### 9. FINANCING

Major sources of funding.

### 10. REVIEW OF THE PLAN

Date and nature of next review(s) and audit of performance of management.

### 1. Moving towards EAFm continuum: complete this table for your fishery/fisheries

To what extent are EAFm principles being applied in your fishery? Plot your fishery on a scale of 0-5 (where 0 = none; and 5 = excellent)

| EAFm principles                 | 05 |
|---------------------------------|----|
| 1. Good governance              | >  |
| 2. Appropriate scale            | >  |
| 3. Increased participation      | >  |
| 4. Multiple objectives          | >  |
| 5. Cooperation and coordination | >  |
| 6. Adaptive management          | >  |
| 7. Precautionary approach       | >  |

| Identify challenges in moving towards EAFm    |
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| Identify opportunities in moving towards EAFm |
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| Start |             |               |      |  |  |
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| List  | the major I | FMU stakeholo | ders |  |  |
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# Startup A

| Plot the stakeholders onto the importance                                 | e/influence matrix               |
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| Plot the stakeholders onto the importanc<br>High importance/Low influence | High importance/High influence   |
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| Low importance/Low influence  | Low importance/Low influence     |
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| Startup A   |  |
|---|--|
| Plot your FMU stakeholder linkages/relationships (Venn diagram) |  |
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| Step 1.1             |
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| Define your FMU      |
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| Step 1.2             |
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| Agree the FMU vision |

### **Step 1.3**

| Identify type of information needed for scoping the FMU |
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### **Step 2.1**

| Identify threats and issues for your FMU |  |
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| Prioritize issues through a risk assessment           |  |
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| 51       | Step 2.3   |  |  |
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| ]        | Develop FMU goals  |  |  |
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| Re       | eality Check I   |  |  |
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|          |  |  |  |
|          | Constraints and opportunities that may prevent you to achieve your FMU goals |  |  |
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|                                   | WIN-WIN CONFLICT RESOLUTION                     | WORKSHEET   |
|-----------------------------------|---|---|
|                                   | nd a way to solve this that works for everyone" | <ul><li>3. Brainstorm</li><li>4. Evaluate solutions</li><li>5. Choose solutions</li></ul> |
| 2. Define problem in terms of nee | ds/outcomes                                     |   |
| Person A:                         | Person B:                                       | Solution 1  |
| Original solution:                | Original solution:                              |   |
| Basic needs/outcome:              | Basic needs/outcome                             |   |
|                                   |   | Solution 2  |
|                                   |   | Solution 3  |
|                                   |   | Solution 4  |
|                                   |   | Solution 5  |
| Shared (relationship) needs:      |   |   |
| 6. Plan action                    |   | 7. Evaluate results:  |

| Develop operational objectives |  |
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| Select indicators and benchmarks for the objectives   |
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| Select mulcutors and benefiniaries for the objectives |
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| Agree on management actions |  |
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| Agree on data and information needs and financing mechanisms |  |
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**Step 3.5**: Now you have all the information to finalize the draft EAFm plan.

# **Step 4.1 Implementation**

Implementation work plan template

| What management actions are currently being used:         EAFm plan objectives that will be addressed with this management action: |   |                        |  |  |
|--|---|------------------------|--|--|
|  |   |                        |  |  |
| What specific tasks need to be done?   | <ol> <li>Nominate what agency is responsible for monitoring, reporting and MCS.</li> <li>State the responsibility of the fishery agency, e.g. direct responsibility, coordination responsibility, etc.</li> </ol> | Timeframe & milestones |  | Activities outside scope/jurisdiction of fishery agency (i.e. which require interdepartmental cooperation) |
|  |   |                        |  |  |

# **Step 4.1 Formalize, communicate and engage**

Communication plan template

| Target audience | Communication method (how & where) | Key messages | Timing |
|-----------------|------------------------------------|--------------|--------|
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# EAFm Participant Workbook **Reality Check II** Check that the governance arrangements and supporting environment are in place to achieve your FMU goals

### Step 5 Monitor, evaluate and adapt Performance review template

| Performance report heading                  | EAFm component (e.g. fishery resources) |
|---|---|
| 1. Broad<br>management                      |   |
| 2. Issue and reason for                     |   |
| 3. Management objectives                    |   |
|   |   |
| 4. Indicators                               |   |
|   |   |
| 5. Benchmark<br>and performance<br>measures |   |
| 6. Evaluation                               |   |
| 7. Robustness                               |   |
| 8. Fishery<br>management<br>response        | Current action                          |
|   | Future action                           |

Example of completed performance review template

| Performance report heading                     | EAFm component (e.g. fishery resources)  |
|--|--|
| 1. Broad<br>management<br>goal                 | Improved management moves towards sustainable fishery production, and reduced conflicts between fishery segments (small-scale fishers/medium-scale seine netters)  |
| 2. Issues and reason for inclusion             | <ul> <li>Two issues were ranked high impact/high likelihood:</li> <li>1) Damage to habitats in near-shore areas by medium scale seine net fishing</li> <li>2) High percentage of juveniles through light fishing for small pelagic species, - declining spawning stocks</li> </ul>   |
| 3. Management objectives 4. Indicators         | Objective 1: to conduct seine netting only within a designated seining zone and operate a closed season for xx months of the year Objective 2: to limit the use of light attracting fishing gears for pelagic species For Objective 1: level of compliance with spatial & seasonal seine net restrictions  |
|  | For Objective 2: Percentage of sub-adults of economically important species in catches from other gears  |
| 5. Benchmark<br>and<br>performance<br>measures | For Objective 1: Seine netters agreement/express support for spatial & temporal measures Enforcement reports and level of compliance  For Objective 2: Sub-adults of commercial fish species increasing in other gear catches from 10-20 %   |
| 6. Evaluation                                  | For Objective 1: number of regulation violations (reported by small-scale fishery observers) not increasing  For Objective 2: no changes detected in the percentage of juveniles in the catch (measured in trawl catch sampling)   |
| 7.<br>Robustness                               | For Objective 1: the indicator is dependent on carrying out comprehensive awareness raising to generate compliance and also enforcement (patrol) measures  For Objective 2: the indicator is dependent on good landing statistics/sampling and cooperation with on board sampling programme  |
| 8. Fishery management response                 | Current action For Objective 1: improve medium scale seine netter compliance – effective communication with seine net operators and linking compliance to incentives such as catch certification.  Improved small-scale fisher cooperation – need to improve communication and consultation and promote allocation of group user rights to fishing communities For Objective 2: strengthened regulation of the seine netting exclusion zone Declaration of closed season for seine netting during peak spawning periods prior to monsoon onset  (May) Small-scale fishery observer scheme report on infringements Sampling programme to monitor % of sub adults of commercially important fish species in catches from other gears Future action  Will need to review, especially if current actions prove to be non-enforceable |

