



# Ecosystem Approach for Mediterranean Aquaculture

Two cases studies in Egypt and in Algeria



According to production trends, aquaculture will likely exceed fisheries turnover over the medium to long term. However, in order to prosper, aquaculture will have to address some serious growth and cross-cutting issues related to its impact on the environment. According to the commitment to the United Nations Convention on Biological Diversity (CBD), the IUCN Centre for Mediterranean Cooperation undertook an analysis to assess two different aquaculture situations in North African countries (Triangle Area - Egypt and Tipaza Wilaya - Algeria). This project aims to validate the methodology for the implementation of an Ecosystem Approach for aquaculture. The objective is to assist stakeholders in improving and/or setting up a more robust Ecosystem Based Management (EBM) framework in order to shift to a consensual approach between all activities in the area. It is based on aquaculture's carrying capacity, from biological, social, economic and knowledge standpoints.

Based on the 12 Principles of the Ecosystem Approach defined by the Convention on Biological Diversity, IUCN has developed a five step methodology for the implementation of the Approach.

Funded by the Agency of International Development Cooperation in Spain (AECID) through its Nauta Programme, this project is contribution to the preparation of future aquaculture Guidelines and management tools.

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# Five steps for the Ecosystem Approach according to IUCN

- A. Stakeholders and zones to be considered.
  - A-1. Identify key stakeholders with interests in the proposed ecosystem.
  - A-2. Classify them as primary, secondary or tertiary stakeholders.
  - A-3. Assess the capacities of management of the stakeholders and their relative involvement in the ecosystem.
  - A-4. Development of management and commitment through a stakeholder forum, to meet regularly.
  - A-5. Identify the size of the ecosystem: what are the geological, physicochemical, biological, ecological, socio-economic and administrative limits?
  - A-6. Linking the stakeholders with the area.
- B. Structure, functions, status (health) and management of the ecosystem.
  - B-1. Identify the ecosystem structure and function.
  - B-2. Set up management systems.
- C. Economic issues.
  - C-1. Identify market demands.
  - C-2. Internalize costs and benefits within the ecosystem.
- D. Adapt management over space.
- E. Adapt management over time.



## Case Studies

The two case studies enabled to validate the methodology; however some improvements on its implementation should be made. The identification and involvement of stakeholders should be addressed according to the delimitation of the area.

Moreover, the insufficiency of the stakeholders' representation should be mitigated by fostering the establishment of representative structures of primary and secondary stakeholders in order to apply the management method.

Finally, the lack of data on the ecosystem as well as on the activities should not hinder the implementation of the decision making system.

These field studies led to the proposition of projects to be implemented in each country together with the governments.

## For More Information

Please contact François Simard  
[francois.simard@iucn.org](mailto:francois.simard@iucn.org)

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