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Identification of key issues for the sustainable management of small pelagic fisheries in West Africa through the application of the Ecosystem Approach to Fisheries

By Birane Sambe



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Objective of the presentation

Present an example of the application of the Ecosystem Approach to Fisheries in the development of a regional management framework for pelagic stocks in the North Western African area (Morocco, Mauritania, Senegal and Gambia)



- **Small pelagic stocks** are among the most abundant in the CCLME area and are widely shared between countries

They are:

- Strategically important resource for the sub-region both economically and for food security
- Important for socio-economic development in Morocco, Mauritania, The Gambia and Senegal

At the same time:

- They fluctuate over time both due to fisheries impacts but also due to changes in environmental factors

➔ An adaptive management system at the regional level is required that reconciles the different management objectives of the region and which also considers potential impacts (e.g. Climate change)





Small pelagics management framework with target species

Scientific Name

Sardinella aurita



Round Sardinella

Sardinella maderensis

Flat Sardinella



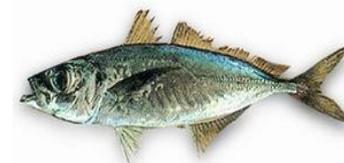
Sardina pilchardus



Sardina

Trachurus trecae

Black Horse mackerel



Trachurus trachurus



White horse mackerel

Decapterus rhonchus

Yellow horse mackerel



Engraulis encrasicolus



Anchovy

Scomber japonicus

Mackerel





Small pelagics management framework

Reasons of development of this management framework for small pelagic fish in North-West Africa

- Ensure the sustainability of resources
- Maintain and even increase the contribution of small pelagic fisheries to the national economy within the biological limits of the resource
- Promoting good governance in the fisheries sector
- Preserving biodiversity and critical habitat for resources
- Ensure that the benefits of the countries are at least equal to the long-term benefits to which they may be entitled in the absence of collaboration
- Contribute to responsible fisheries management at the sub-regional and regional levels





Solution: Identify key issues for management through the application of EAF

Key stakeholders representing management, research, non-governmental institutions and fisherfolk came together to:

- Agree on overall objectives to be achieved, and
- Identify issues to be addressed to ensure sustainability of the small pelagic fishery resources





Steps of EAF

Four steps of EAF were applied to develop the management framework :

- Initiation and planning
- **Identification and prioritization of issues**
- Development of a management plan
- Application and monitoring

Challenges, strengths and issues: identified according to 3 fundamental requirements in any ecosystem approach

- **Ecological Well-Being** (EW)

➔ Bio-ecology

- **Human Wellbeing** (HW)

➔ Socio-economy

- **Ability to Achieve** (AA)

➔ Governance





Ecological Well-being : Priority issues

- **Catches of juveniles of targeted species**
- The high incidence of IUU fishing
- Uncoordinated Excessive Fishing Efforts
- **Insufficient understanding or knowledge especially of biological and environmental information affecting certain stocks**
- **Potential adverse effects of various forms of pollution on resources.**





Ecological Well-Being : Management objectives

1. Preserve habitats and biodiversity of resources

Operational objectives:

- i) Undertake appropriate studies to characterize the impact of environmental parameters on resource variability
- ii) Improve knowledge on the impacts of climate change on small pelagic fisheries in North-West Africa

2. Rebuild overexploited stocks and protect threatened stocks





- **The safety of fishermen at sea**
- Lack of insurance for those operating in the industry / sector
- Limited access to credit institutions especially for artisanal fishermen
- Lack of lucrative alternative activity / employment
- **The increase of conflicts, consequence of important migrations of fishermen in the sub-region**
- The use of whole fish, instead of discards and waste, in fishmeal processing plants
- Insufficient fish consumption within some countries





Human Well-Being : Management Objectives

- Ensuring the economic viability and sustainability of small pelagic fisheries
- Increase the value of small pelagic fish and their products
- Improve livelihoods, living conditions of operators and their community
- Improve the contribution of small pelagic fisheries to food security in the 4 countries
- Improve safety at sea for operators



- The lack of or inadequate enforcement of fisheries rules at national level
- The high incidence of illegal, unreported and unregulated fishing in the subregion and the absence of dissuasive sanctions
- The absence of regional institutions and fisheries management mechanisms¹



- Strengthen legal and institutional frameworks for **shared stock management** and promote compliance with regulations
- **Harmonize fisheries management measures in accordance with international instruments**
- Create effective synergies between the interventions of the different partners with the fisheries
- Fighting IUU fishing in the EEZs of the four countries



CONCLUSION

- EAF approach helps to identify major issues to be addressed in fisheries management.
- The application of the proposed management measures should lead to the sustainable management of fisheries.
- However it is necessary to evaluate the implementation of the plan at any time in order to consider events induced by factors that may be related to climate change and take adaptive measures.



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Thank you for your attention

