



An Introduction to the ecosystem approach to fisheries and examples of its implementation in Africa through the EAF-Nansen Project

Merete Tandstad, Kwame Koranteng and Tarub Bahri

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Outline

- Key features of EAF
- The widening of perspectives and the EAF Planning process
- EAF implementation in Africa: Experiences from the EAF-Nansen Project
- FAO Guidance material



WHAT IS EAF?

The main purpose of the EAF is to plan, develop and manage fisheries in a manner that addresses the multiple needs and desires of societies, without jeopardizing the options for future generations to benefit from the full range of goods and services provided by marine ecosystems.





Key features of the EAF - Basic Objectives



- Maintaining ecosystem integrity / ecological well being
- Improving human well-being and equity
- Promoting/enabling good governance



Concept development

- Reykjavik Conference on Responsible Fisheries in the Marine Ecosystem, Oct 2001
- The WSSD implementation plan calls for an ecosystem approach to be implemented by 2010
- COFI has endorsed EAF as the appropriate framework for fisheries management
- International and regional fisheries-related instruments have established provisions that embrace the principles of ecosystem approach to fisheries.
 - FAO Code of Conduct for Responsible Fisheries, 1995
 - UNCED and its Agenda 21, 1992
 - CBD, 1992.
 - But EAF can be traced back to the negotiations of LOSC, 1982
 - RAMSAR, 1972



Key features of the EAF principles in practice

- Apply the precautionary approach
- Use best available knowledge
- Acknowledge multiple objectives and values of ecosystem services
- Embrace adaptive management
- Broaden stakeholder participation
- Understand and use full suite of management measures
- Promote sectoral integration and interdisciplinarity





Key features of the EAF- Principles

- ❑ The EAF is the mechanism to attain sustainable development in fisheries– stressing holistic, integrated and participatory processes
- ❑ None of the principles that underlie the EAF are new. They can all be traced in earlier instruments, agreements, declarations.
- ❑ EAF is an effective implementation tool for the Code of Conduct for Responsible Fisheries.



Broadening of perspectives

Conventional approach

Extension

Ecosystem approach

Few objectives

Multiple objectives

Sectoral

Interacting with other sectors

Target / non target species

Biodiversity & environment

Stock / fishery scale

Multiple (nested) scales

Predictive

Adaptive

Scientific knowledge

Extended knowledge

Prescriptions

Incentives

Top-down

Interactive / Participatory

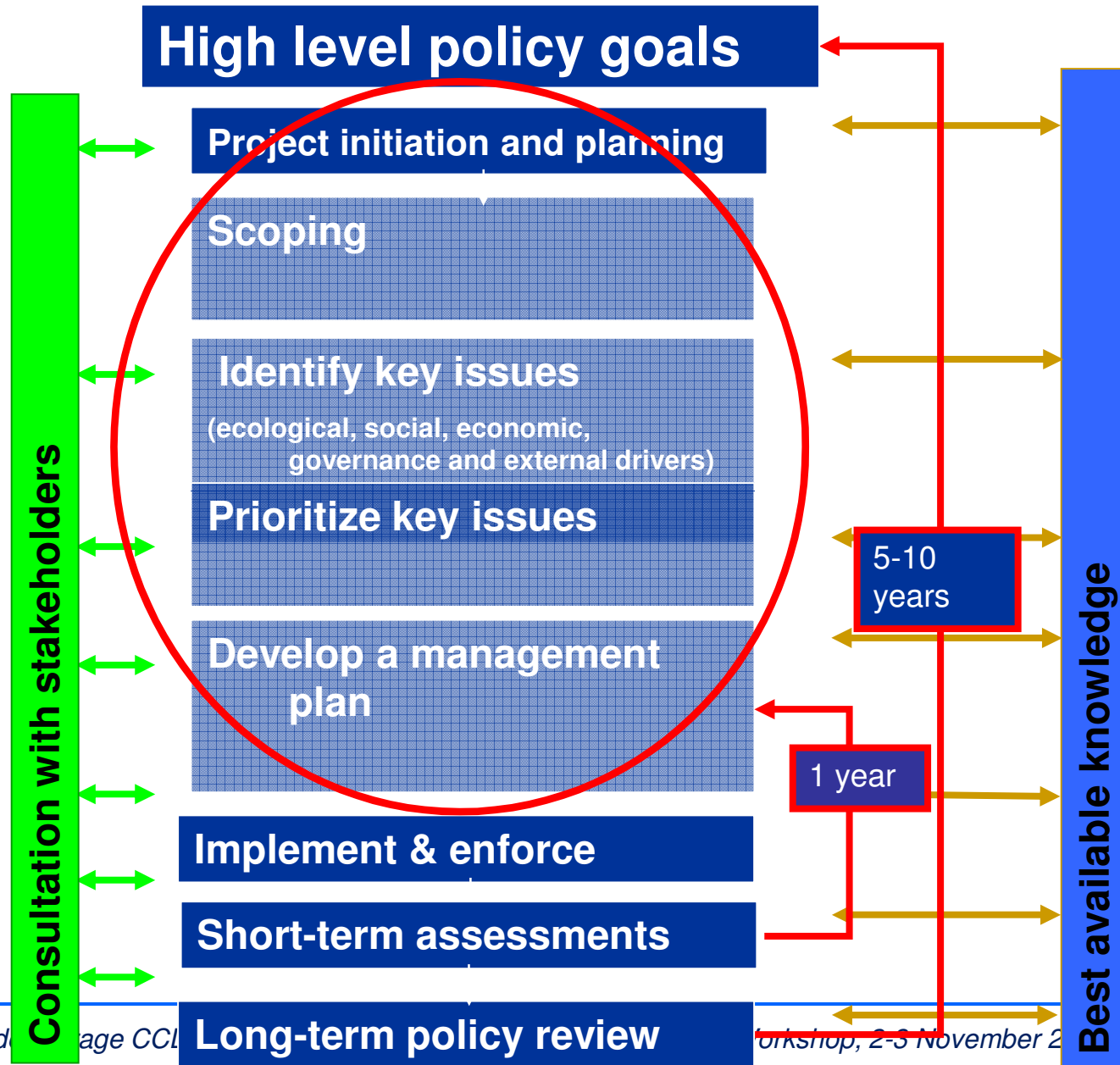
Corporate

Public / Transparent



Applying the EAF- From generic goals to implementation

1. Scoping/ baseline overview of the fishery/ies
2. Setting broad objectives (consistent with overall goals)
3. Identify the issues (e.g. using component trees)
4. Prioritize the issues (using Risk Assessment)
5. Identify appropriate management responses (including setting operational objectives and indicators and performance limits)
6. The development and evaluation of the management options.
7. Formalize the management system.
8. Monitor and Evaluate performance



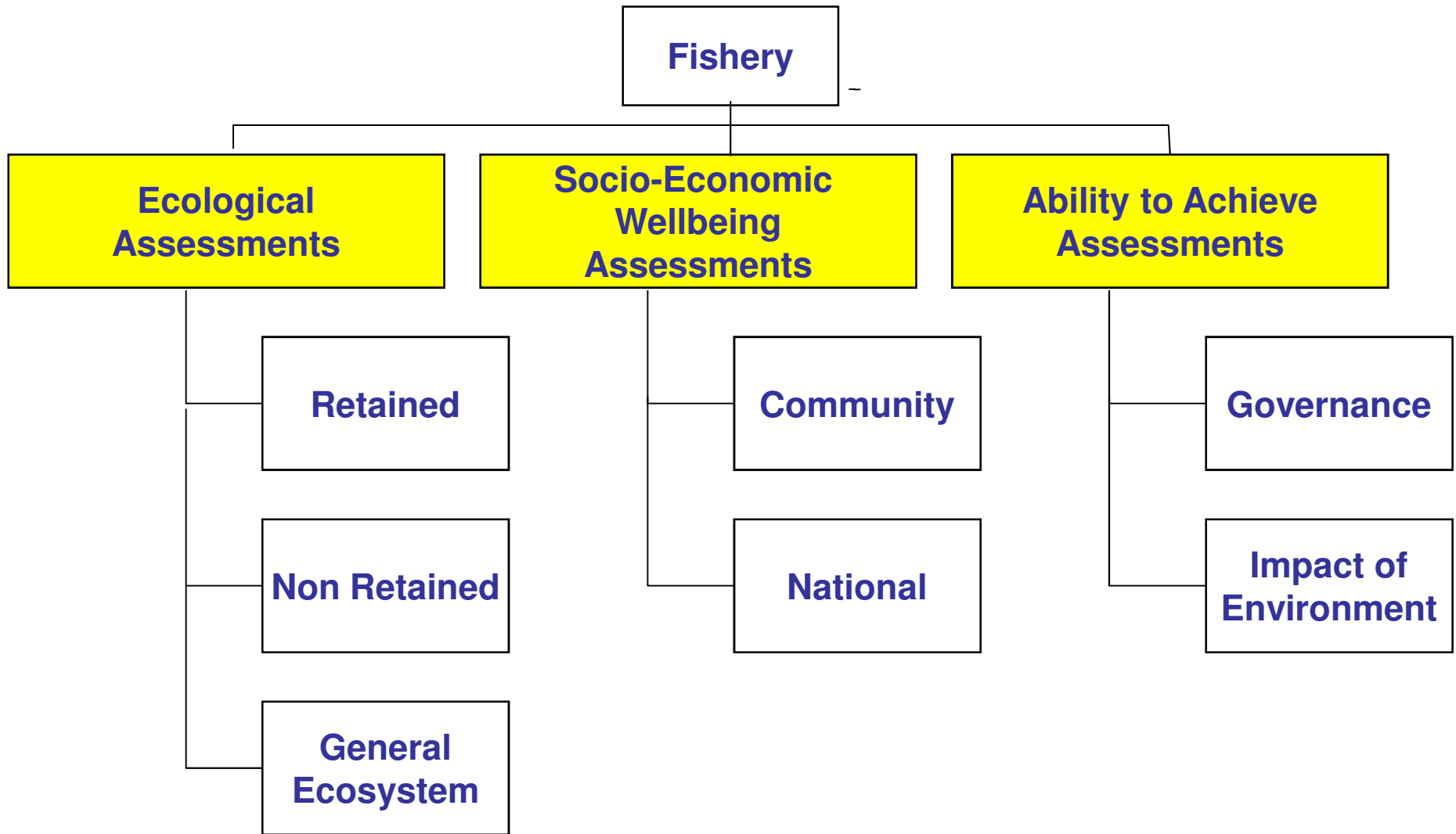


Management plans

- They are formal or informal arrangement between a fishery management authority and stakeholders
- Provides information on key aspects of the resources, the importance to humans and on how the fishery will be managed
- It clearly specify agreed short, medium and long-term targets and how can these be achieved



The generic component tree





Using EAF to identify key climate change issues

Fishery/OU

1. Ecological well-being

1.1 Landed

1.2 Discarded

1.3 General Ecosystem

2. Human well-being

2.1 Community

2.2 National

3. Ability to Achieve

3.1 Governance

3.2 Extra-fisheries changes/drivers

Biophysical changes from CC

Changes in species productivity and distributions

Safety at sea/loss of lives
Impacts on cost and revenues

Increasing demands on gov't
Changes in fuel prices
Obstacles to adaptation





Prioritisation of Issues

- Often many issues are identified, their importance varies and not all will require full explicit management actions
- Conduct a Risk Assessment on each of the identified issues to determine appropriate level of response
- Consideration of the sources of risk, their consequences and the likelihood that those consequences may occur



Strengthening the Knowledge Base for and Implementing an Ecosystem Approach to Marine Fisheries in Developing Countries «EAF-Nansen»

➤ **Immediate objective:** Staff of the fisheries research institutions and management administrations in the participating countries provided with additional knowledge on their ecosystems and on EAF principles for their use in planning and monitoring.



Project Components, Outputs and Activities

EAF Policy and Management

Output 1

Policies formulated consistent with EAF principles at national and regional levels.

Output 2

Revised management plans that include EAF considerations developed

Ecosystem Assessment & Monitoring

Output 3

Procedures & methods for assessment and monitoring of key ecosystem properties established

Capacity Building

Output 4

Increased capacity at scientific and management level on EAF Approaches

Support to Regional R/V's

Output 5

Advice on use of national or regional research vessels included coordinated coverage

Planning & dissemination

Output 6

Project planning and dissemination of information



EAF-Nansen and the CCLME

- What datasets have to be assembled for the TDA?
- What analyses have to be done?
- How can the EAF process contribute to the development of the TDA and help set priorities for the SAP?
- How will management actions be obtained from the analyses done for inclusion in the SAP?



EAF-Nansen and the CCLME

EAF Project Initiation

- Determine what needs to be managed
- Boundaries/Are the resources shared by neighbouring countries?
- Clarify the purpose of management

Identification of Issues

- Ecological assets
 - Social and Economic Outcomes
 - Governance Systems and External drivers
- EAF Risk Assessment (ERA) >> Problem analysis



Output 1: Policies formulated consistent with EAF principles at national and regional levels

- **“Legislating for an Ecosystem Approach to Fisheries – A Review of Trends and Options in Africa”** - study by FAO/LEGN
 - National legislation and soft law instruments relating to EAF) for 14 countries reviewed
 - CECAF-North countries covered: Morocco, Mauritania, Senegal
 - FAO Legal database, FAOLEX (<http://faolex.fao.org/faolex>)



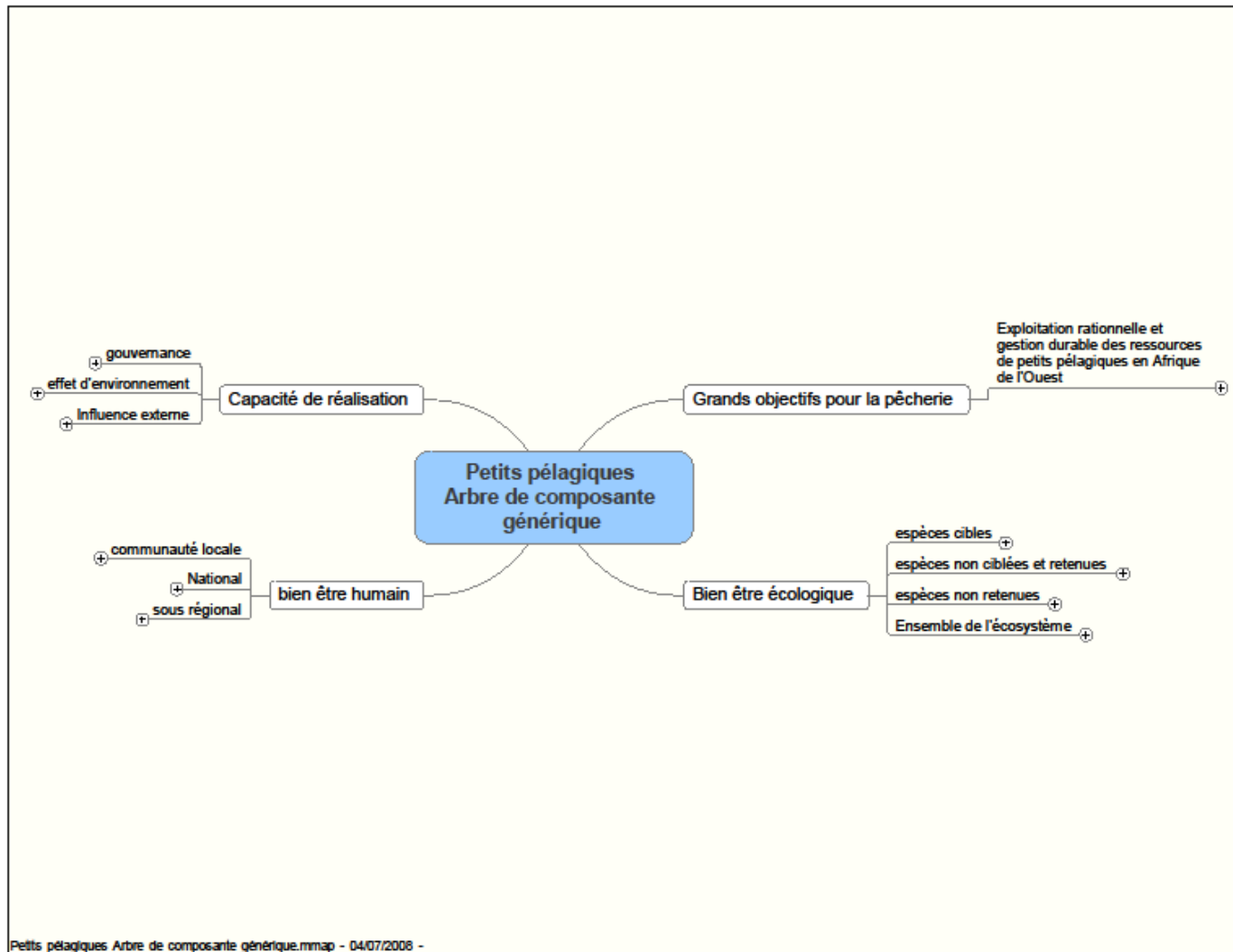
Output 2: Revised management plans that include EAF considerations developed

- Familiarisation and ERA methodology workshop (Accra, 2007; Durban, South Africa, 2008, Casablanca, 2008)
- Formation of EAF Regional Task Group (RTG) (e.g. Casablanca, –2009)
- Formation of EAF National Task Groups





Example of Issue Identification





Output 3: Procedures and methods for assessment and monitoring of key ecosystem properties established

Ecosystem Surveys with R/V Dr Fridtjof Nansen

- ❑ BCC Surveys
- ❑ ASCLME survey – 2008
- ❑ GCLME surveys – 2007 -
- ❑ SWIOFP/ASCLME survey – 2008/2009
- ❑ IUCN/ASCLME/ZSL
Seamounts survey – 2009
- ❑ Post survey meetings (with
managers and scientists)





Output 3: Procedures and methods for assessment and monitoring of key ecosystem properties established

- Stock Assessment WGs (Demersal and Pelagic)
- *Development of GIS for EAF*
 - explore and create opportunities to develop an information system where biological and oceanographic data collected by the EAF-Nansen project can be stored, managed, visualized;
- *Development and Use of Indicators for EAF*
 - identify suitable indicators for fisheries management, as required for the application of EAF
 - expert workshop on indicators, Rome April 2009



Output 4: Increased capacity at scientific and management level in partner countries on EAF approaches

- ❑ Trainers workshop in Rome 16-20 Feb (of 9 participants 2 were from WIO)
- ❑ EAF Course at the University of Ghana (English) – April 2010 (French course next)
- ❑ Stock Assessment Course in Mombasa, Kenya
- ❑ Survey Data Analysis/Nansis Workshops (Accra, 2008; Port Louis, 2009; Dakar 2010)
- ❑ Development of training manuals
 - EAF toolbox nearing completion
 - Working on EAF Guide for Africa





Output 5: Advice on use of national or regional vessels for EAF related research including coordinated regional coverage by local or other vessels

- Planning Group for the Coordination of Acoustic Surveys

Coordinated Acoustic survey 2010- Survey plan

(R/Vs ITAF DEME, AL AWAM, AL AMIR MOULAY ABDALLAH))

1. 7/11/10-16/11/10 - PART I: Senegal and The Gambia.
2. 21/11/10-1/12/10 - PART II: Mauritania ;
Intercalibration 25/11
3. 26/11/10-9/12/10 - PART III: Cap Blanc-Cap Bojador.
(9/12/10-TBD),, Cap Bojador to Cap Cantin (coverage to be defined)

- Some support to Guinea (acoustic surveys)

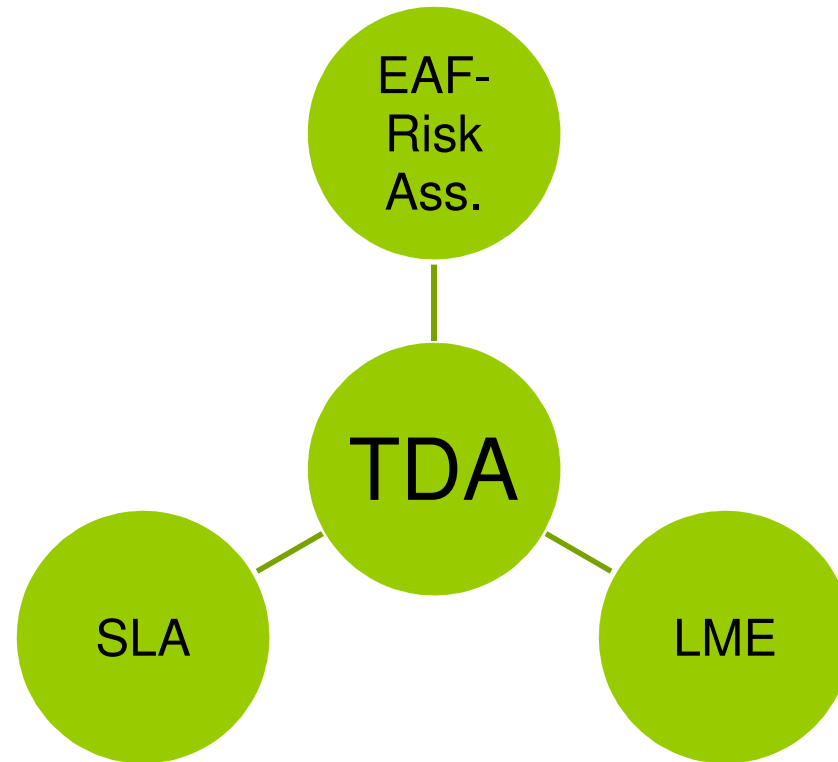


Output 6: Project planning and dissemination of information

- Communication Strategy under implementation
- Project website www.eaf-nansen.org
- Newsletter (**e-APPROACH**)

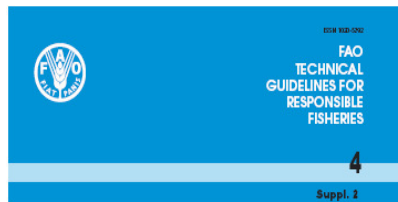


- ❑ DO NOT SEE THE ACTIVITIES UNDER THE EAF-NANSEN PROJECT AS JUST FOR THE PROJECT AND ITS EXPECTED OUTCOMES
- ❑ THINK ABOUT THE METHODOLOGY AND USE AS APPROPRIATE IN OTHER CIRCUMSTANCES
- ❑ TRAINING ASPECTS



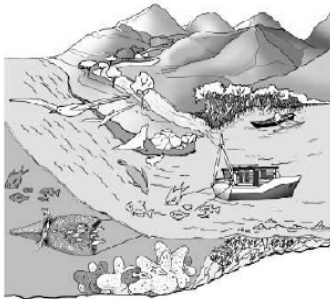


FAO Guidance on EAF



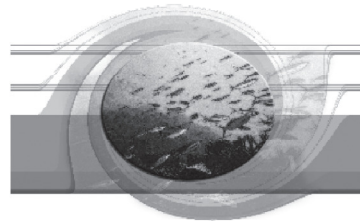
FISHERIES MANAGEMENT

2. The ecosystem approach to fisheries



FISHERIES MANAGEMENT

2. The ecosystem approach to fisheries 2.1 Best practices in ecosystem modelling for informing an ecosystem approach to fisheries



FISHERIES MANAGEMENT

2. The ecosystem approach to fisheries 2.2 The human dimensions of the ecosystem approach to fisheries



1. Technical Papers (EAF/EAA)
2. EAF Toolbox
3. Indicators for EAF
4. Best practices

5. GIS systems for EAF
6. Country level implementation

Thank you for your attention

Merete.Tandstad@fao.or

