



Food and Agriculture
Organization of the
United Nations



Enhancing Climate Change Resilience in the Benguela Current Fisheries System



DAFF Research Aquarium Building, Beach Road,
Sea Point, Cape Town; 16 – 16 March 2017



1. Why is this important?

BCLME provide

- Food security
- Employment, livelihoods
- Economic development
- community level, social capital
- Often in areas with limited alternatives



CV and CC impacts on fisheries and aquaculture

Biophysical changes
from GHG
accumulation



Ocean currents
Benguela Ninos/warm
water intrusions
Sea level rise
Rainfall
SST
Winds in the summer
Thermal structure
Storm/wave surges
Decreased oxygen
Acidification

Effects on:

Production
Ecology

Fishing &
Aquaculture
operations

Communities
Livelihoods

Wider society &
Economy

Impacts on:

Species composition
Production & yield
Distribution
Diseases
Calcification

Safety & efficiency
Infrastructure

Loss/damage to assets
Risk to health & life
Displacement & conflict

Adaptation & mitigation costs
Market impacts
Water allocation among sectors



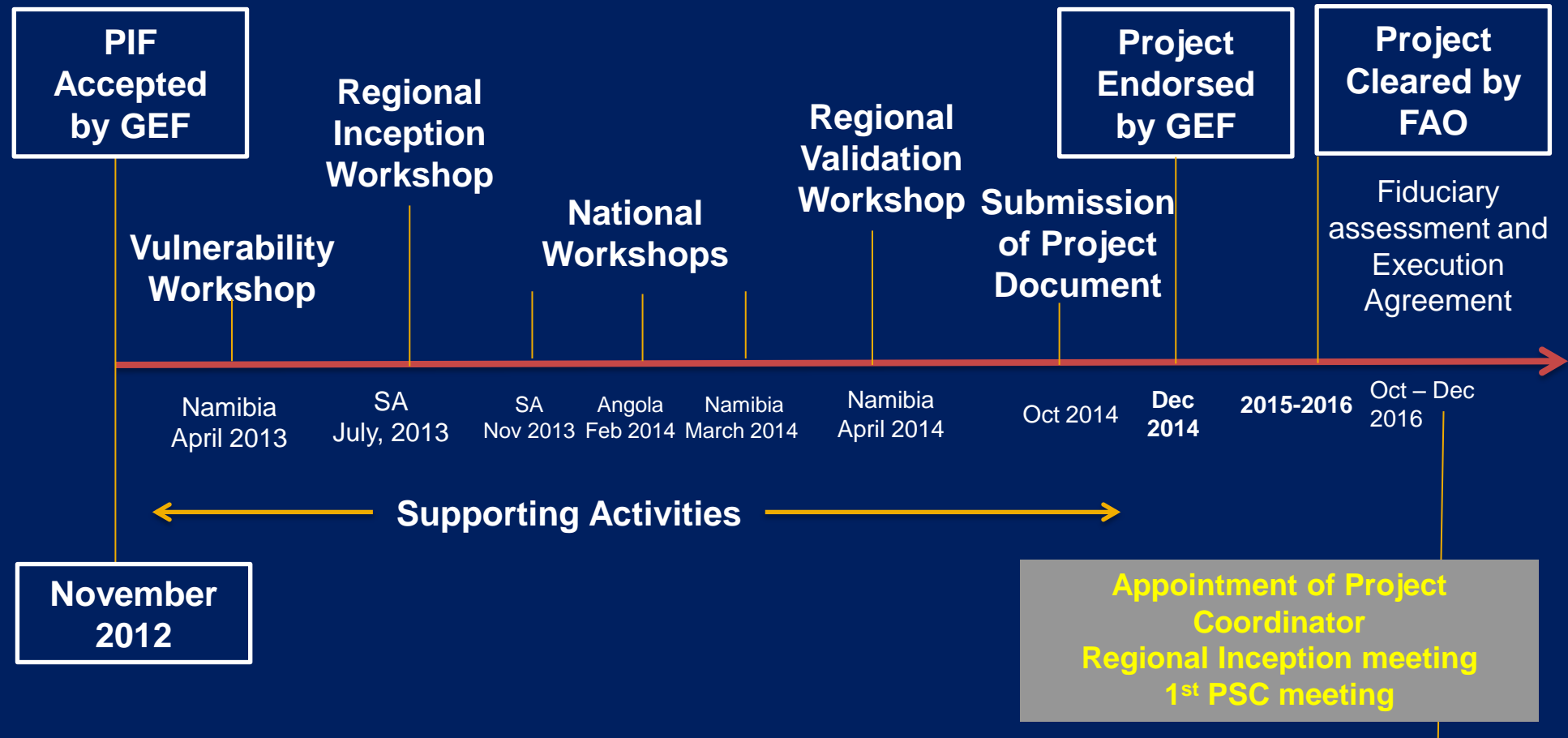
Adapted from Badjeck et al, 2010

Efforts were made to address threats to BCLME,

▶ However:

- ▶ Majority of effort went towards the understanding of the biophysical and biological conditions within BCLME
- ▶ CV and CC have not been addressed in a concrete manner
- ▶ Limited knowledge exist on the understanding of the impacts of CC and the vulnerability of fisheries on dependent communities
- ▶ Unclear on how decision-makers and fisheries management will incorporate the additional information into the existing legal frameworks

Project Preparation Road Map



GEF Least Developed Countries Fund and Special Climate Change Fund

Enhancing Climate Change Resilience in the Benguela Current Fisheries System

- ▶ Project Timeframe: 5 years (2016-2020)
- ▶ Project budget (LDCF/SCCF): US\$ 4,725,000
- ▶ Project co-financing: US\$ 14,650,000
(Angola, Namibia, South Africa)
- ▶ Implementing Agency: FAO
- ▶ Executing Agency: BCC

**National Project
Coordinator**

**Fisheries and fisheries
communities planning
assistant**

2

PIU

**National Project
Coordinator**

1

3

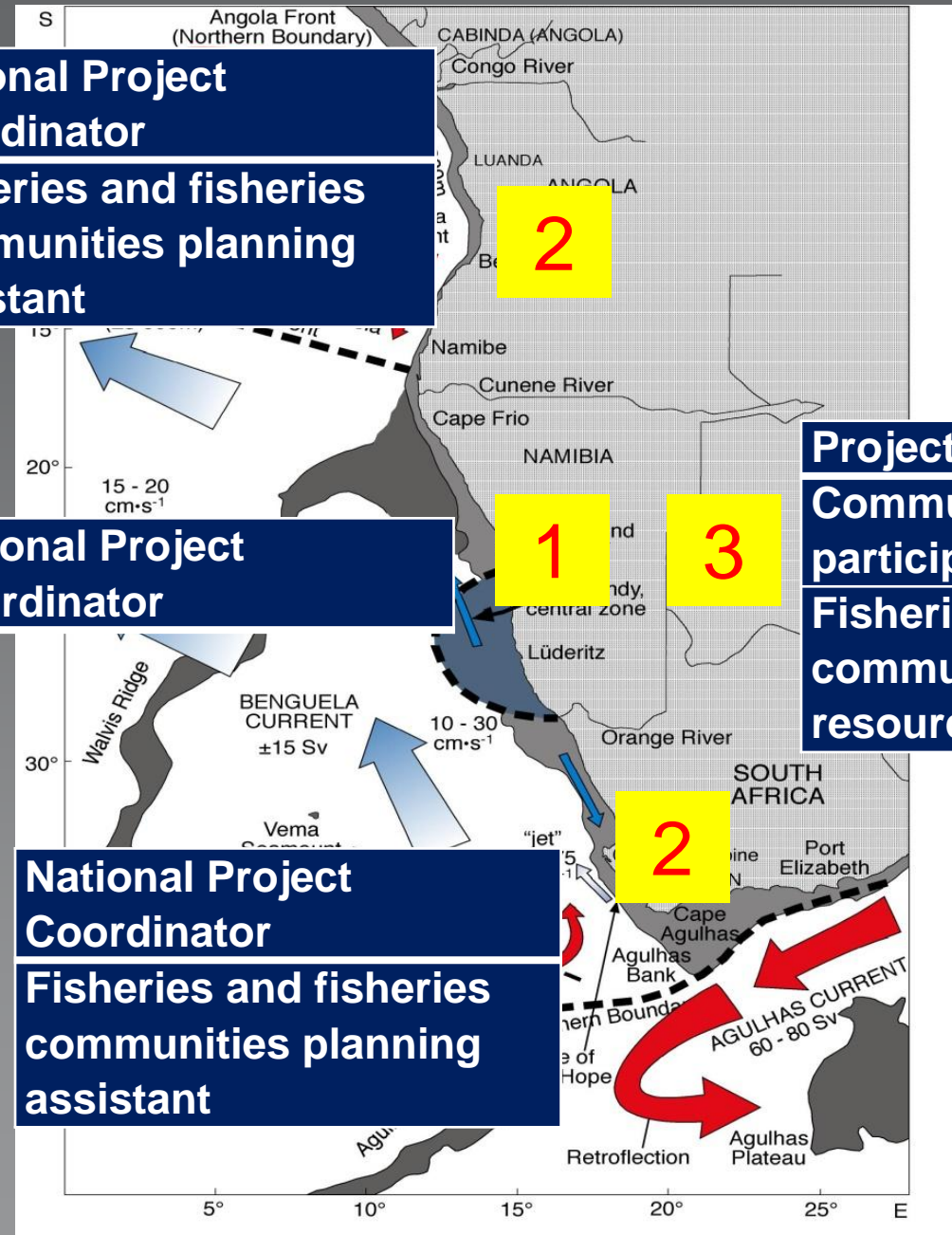
Project Coordinator

**Communications and
participants resource person
Fisheries and fisheries
community-based resilience
resource person**

**National Project
Coordinator**

**Fisheries and fisheries
communities planning
assistant**

2



GEF/BCC/FAO Project: Enhancing Climate Change Resilience in the Benguela Current Fisheries System

Objective:

To build resilience and reduce vulnerability of the BCLME to climate change through strengthened adaptive capacity and implementation of participatory and integrated adaptive strategies in order to ensure food and livelihood security.

Project Components

1. Integrating fisheries climate change considerations into fisheries policies and planning + into broader inter-sectoral policies and programmes.

Inclusão do sector Pesqueiro e Alterações Climáticas (AC) em Políticas e Programas mais abrangentes

2. Piloting of improved climate-resilient fisheries practices.

Actividades piloto para melhorar a adaptação e resiliência às Alterações Climáticas

3. Capacity building and promotion of improved climate-resilient fisheries practices

Reforço de competências e promoção de práticas de resiliência às Alterações Climáticas

4. Monitoring and Evaluation and adaptation learning

Monitorização e avaliação

Large scale Fisheries

Action

LSF (national & regional)
1 x Angola
2 x Namibia
1 x South Africa,
Mariculture

VA

Priorities
(adaptation
plans)

1 x LSC & mariculture
per country;

Adaptation
plans

For South African the small pelagic sector, targeting anchovy and sardine, has been selected as the national fishery for this Output. The assessment will include the different vulnerabilities of different role players such as the fishers, factory workers and management, and the mariculture sector along the BCLME section of the coastline.

- *Activity 2.2.1.2 Using available information and approaches, develop and initiate, where necessary, national adaptive management plans that incorporates climate change and variability, allowing for stock rebuilding where required. This should include assessing costs and benefits of implementation, including for implementing a compensation program for fishers in the event of stock rebuilding being required.*

Action

Small scale fisheries

RVA

SSF

7 x Angola
2 x South Africa

Priorities
(adaptation
plans)

Adaptation
plans

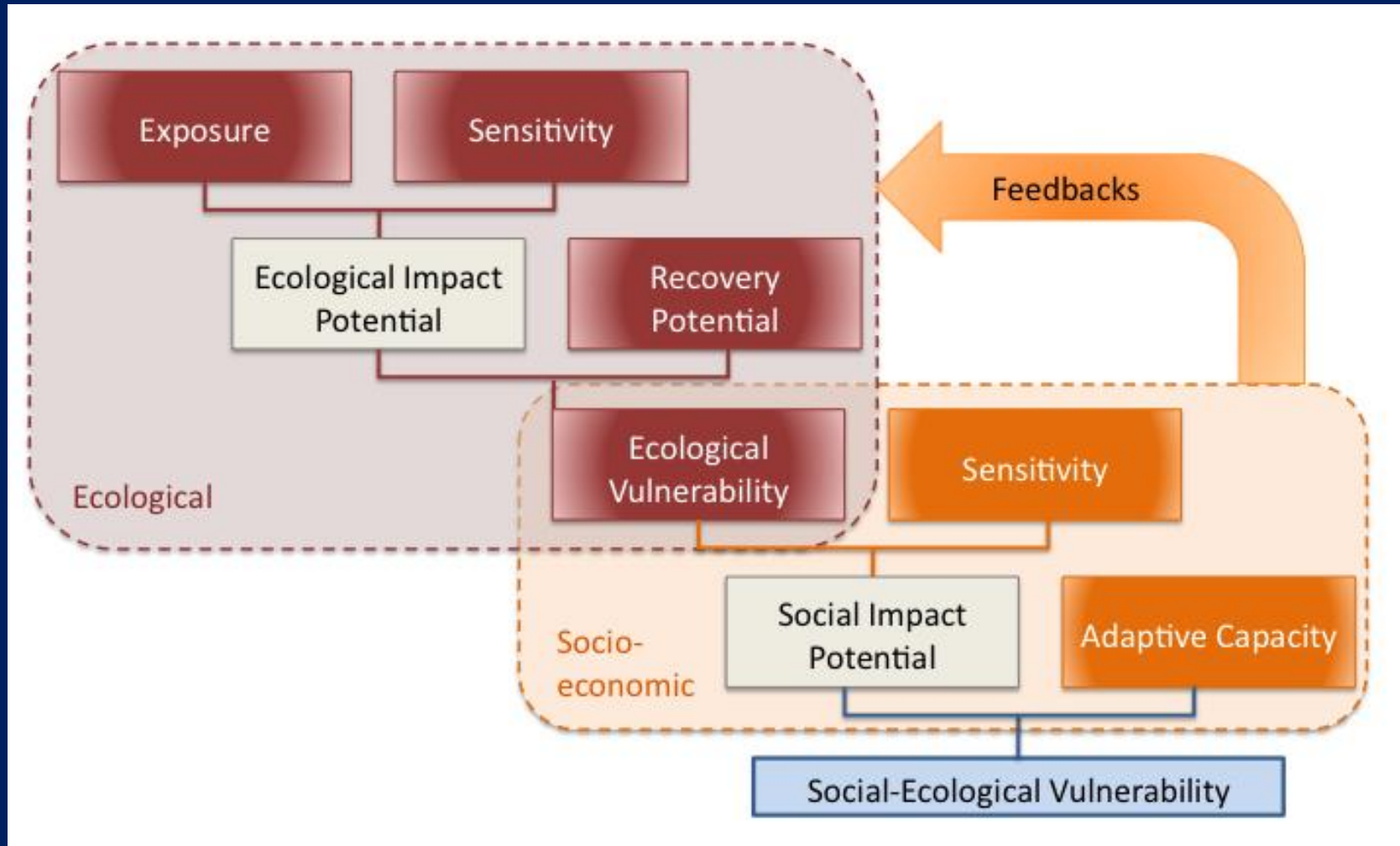
2 x Comm in Angola &
SA,
Training needs/exchange
programmes;
Equipment (navigation &
safety)
Equipment (envir
monitoring)

VA will address the whole social-
ecological system as necessary
and will cover at least 50% of the
most vulnerable fishery systems in
these two countries.

Based on the results of VAs (Output 1.1.1) and through participatory processes, local adaptive management plans will be developed and implemented, including consideration of alternative livelihoods, in at least 2 communities engaged in small-scale fisheries in Angola and South Africa. Steps will be taken to ensure local plans are integrated into national management plans for relevant fisheries and stocks and into relevant coastal development plans.

- Establish regional network of stakeholders to raise awareness and encourage stakeholders participation in the CC workshops and other activities
- In each of the three countries, national coordinating bodies will be established using the existing structures as far as possible to ensure cross-sectoral information flow.
- A BCC regional working group on Incorporation of VA and adaptation plans to CC will be established with a fix term of operation, in order to promote improved coordination of VA, planning and advice on project prioritization across all fisheries/sectors during and after the project.
- Undertake a study of the suitability and capability of existing institutional arrangements to address the Output and, where relevant, the need for any modifications and improvements will be identified and presented

- *A gap analysis will be undertaken of key relevant national and regional legislation, programmes and plans. Needs and opportunities for enhancing the mainstreaming of CC impacts on fisheries and mariculture will be identified. Draft proposals on filling identified gaps and pursuing opportunities will be developed and disseminated, with participation by relevant authorities and officials*
- *In each country, working with the informed national and sectoral representatives on the BCC Commission and other bodies, consultations will be held to identify and initiate suitable mechanisms for strengthening cross-sectoral collaboration and facilitating multi-disciplinary cooperation in preparing for and responding to climate change impacts on fisheries and aquaculture.*



Generic vulnerability framework that will be applied in the project.