

Overview of FAO knowledge and activities in support of country action on climate change adaptation

UNFCCC: Regional training workshop on adaptation for the
Anglophone African LDCs
29 July – 2 August 2013, Kigali, Rwanda

Benjamin De Ridder
Regional Office for Africa FAO
Benjamin.Deridder@fao.org



Food and Agriculture Organization of the United Nations

www.fao.org/climatechange

Intergovernmental commitments

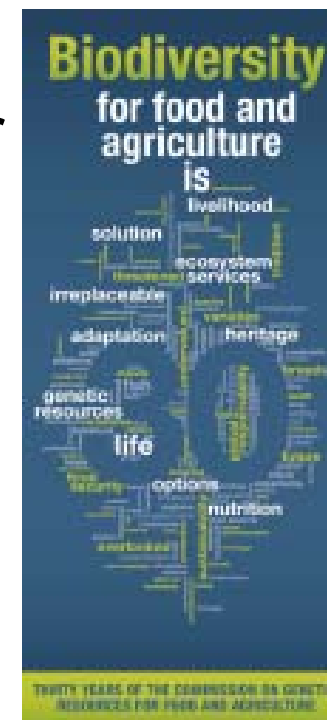
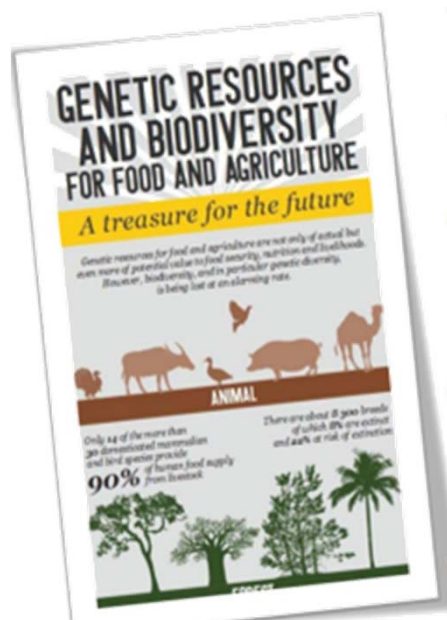
Committee on World Food Security:

- Urgency to integrate climate change concerns in food security policies and programmes
- Increase resilience of vulnerable groups and systems – emphasis on adaptation – mitigation is a co-objective



Commission on Genetic Resources for Food and Agriculture

- Programme of Work on climate change and Genetic Resources for Food and Agriculture (2013-2016)
- Mainstream GRFA in climate change
- Genetic diversity provides key option for climate change adaptation



Commission on Genetic Resources for Food and Agriculture

- Roadmap developed, priority measures:
 - strengthening in situ and ex situ conservation of genetic resources for food and agriculture
 - improving characterization to identify appropriate genetic resources for coping with climate change
 - facilitating the transfer of appropriate genetic resources and their related knowledge to farmers, pastoralists, fisherfolk and fish farmers, as well as forest managers; and
 - developing an integrated approach to the management of agro-ecosystems



Towards NAPs: a review of NAPAs in 18 African countries

- 195 priority adaptation projects
- 95% concern **agriculture** (97% of the budget)
- Transversal 27%
- Water 23%
- Crops 11%
- Forest 9%
- Livestock 8.5%
- Coasts 6%, Energy 6%
- Food 5%
- Fisheries 3%





**Building resilience for
adaptation to climate change in
the agriculture sector**

Proceedings of a Joint
FAO/OECD Workshop



A systemic approach:

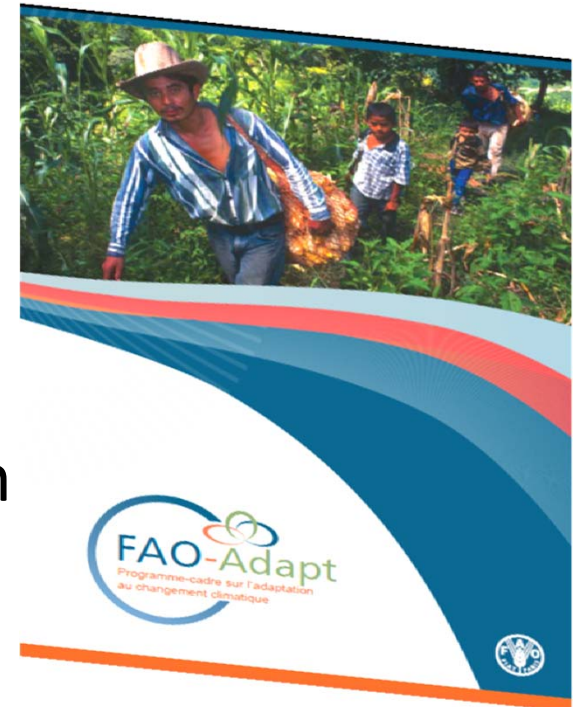
- Ecosystem
- Economic
- Social

- Food system
- Household
- Farm
- Landscape



FAO focus on Adaptation - Tools

- Provision of data and knowledge
 - impact and vulnerability assessments
 - risk management (forecasting, early warning, DRM,...)
- Strengthening institutional capacities
 - institutions, policies and financing
 - extension services, support to research
- Technologies, practices & processes
 - sustainable and climate-smart management of natural resources (land, water, forests,...)



FAO data and information sources

- Impact data, maps, methodologies – **CLIMPAQ**
 - impacts of weather and climate on agriculture
- Technologies & practices for small producers – **TECA**
 - practical information on agricultural technologies and practices, to help small producers in the field
- Data and information on water - **AQUASTAT**
 - resources and use by country and by region



... FAO data and information sources

- Global Forest Resources Assessment – **FRA**
 - 90 variables: extent, condition, uses and values of forests, assessing all benefits from forest resources
- GHG database (crops, livestock, forestry, fisheries and land use changes) – **FAOSTAT**
 - Promoting synergies between climate change adaptation, mitigation and development



FAO capacity development on CC

LEARNING ABOUT CLIMATE CHANGE
www.fao.org/climatechange/learning


In many countries policy-makers and development practitioners need to learn more about the twin challenges of climate change and food security.

FAO LEARNING PORTAL ON CLIMATE CHANGE OFFERS:

- Learning materials – policy briefs, case studies, training manuals, e-learning courses
- Learning services – more than 30 learning packages and training programmes offered by FAO

FAO'S LEARNING SERVICES ARE GROUPED INTO FIVE PRINCIPAL THEMES:

- International Climate Change Policy and Finance
- Mainstreaming Climate Change
- Impact and Vulnerability Assessment
- Climate Change Adaptation
- Climate Change Mitigation



CURRENT DEVELOPMENTS

Training manual on gender and climate change

Content

- Concepts and definitions related to gender and climate change
- Tools for conducting gender analysis and development activities related to women and men capacity building challenges caused by climate change (CC) and/or tools for conducting gender-sensitive research and learning
- Guidelines on carrying out and reporting on research and learning

Target audience

- Researchers and field practitioners

E-learning on climate change and food security

Content

- A primer on the subject of climate change and food security
- Basics of climate science, climate change adaptation, mitigation and climate-smart agriculture

Target audience

- National ministry staff
- Field practitioners from FAOs and NGOs

Guidance on integrating climate change into agricultural investment projects and programmes

Content

- Priority action areas and policies for climate change adaptation and mitigation in agriculture
- Entry points for integrating climate change into projects and programmes
- Checklist and guidance on how to incorporate climate change considerations into projects and programmes

Target audience

- National ministry staff
- Core government staff
- National and international consultants
- Staff of international organizations

- Wide range of learning materials and learning services for capacity development on climate change to facilitate experience-sharing
- 5 themes:
 - International CC Policy and Finance
 - Mainstreaming CC
 - Impact & vulnerability assessment
 - Climate change adaptation
 - Climate change mitigation



Main FAO websites

- FAO Climate Change website is a hub
www.fao.org/climatechange
 - data, news, projects, publications
- Climate-Smart Agriculture portal
www.climatesmartagriculture.org
 - Partnership & **NEW** Sourcebook



Sourcebook and Partnership

- To address knowledge gaps and support countries in implementing climate-smart approaches
 - increase productivity & income
 - *build resilience (adaptation)*
 - reduce GHG emissions, where possible
- FAO, IFAD, UNEP, WB, WFP, UNCCD and CGIAR/CCAFS



**EPIC Project: CLIMATE SMART AGRICULTURE: CAPTURING SYNERGIES
MITIGATION, ADAPTATION, FOOD SECURITY**



Duration: 1 January 2012 - 31 December 2014.
Resources: 5.3 million Euros (EC, SIDA, FAO)
Partners: Malawi, Vietnam and Zambia, MICCA, CCAFS, Univ. of Aberdeen, FANRPAN, others

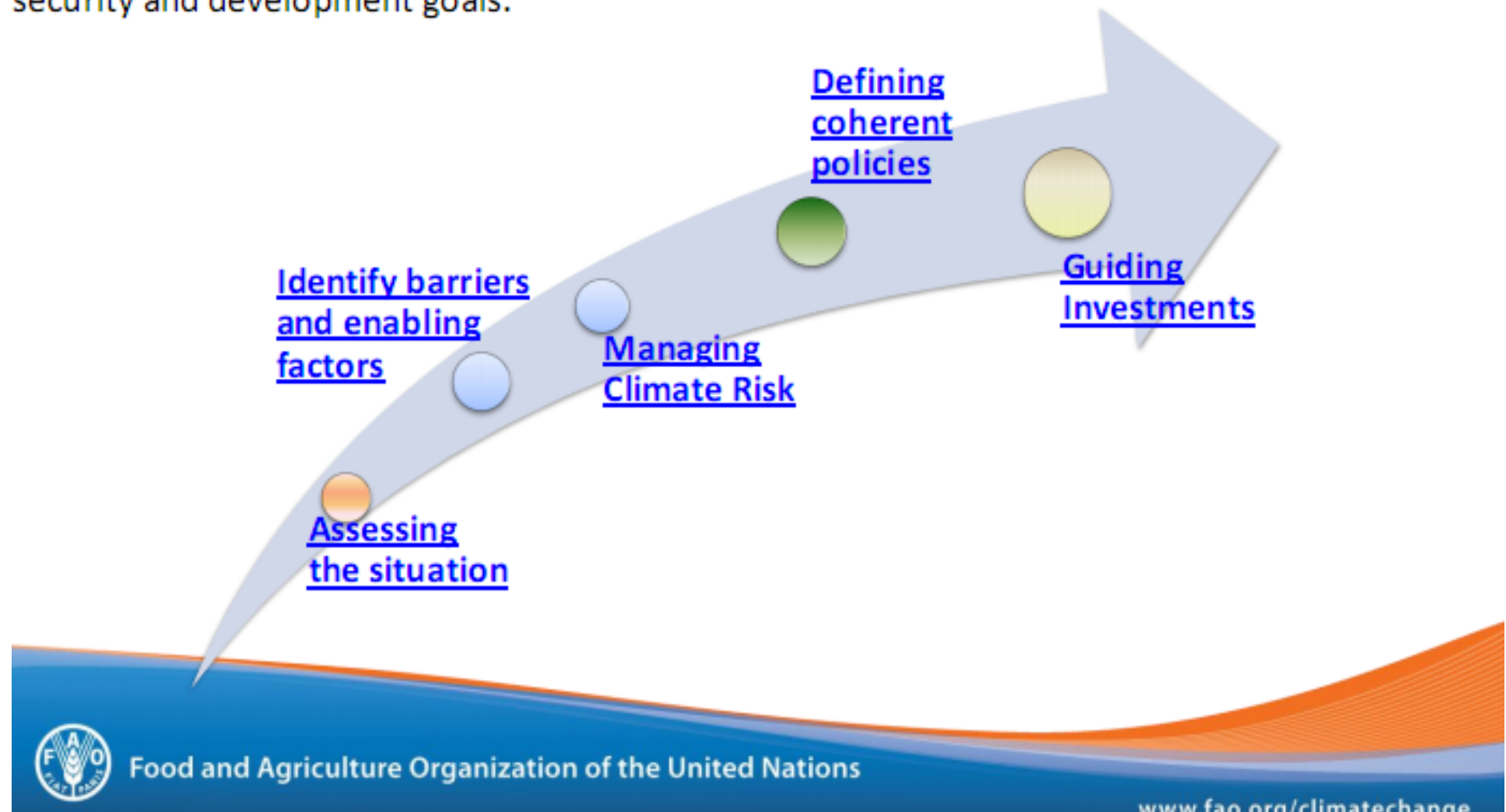
Focus: Holistic and context-specific approaches to food security, adaptation, mitigation to understand synergies/trade-offs and barriers to adoption of CSA practices. Develop with government and other stakeholders tools for identification-implementation of context-appropriate options for:

- (i) climate-smart agricultural practices and
- (ii) supportive policy, institutional, strategic and investment frameworks to promote sustainable agricultural development and food security under climate change; to overcome adoption barriers and manage climate change risks.



Sequencing of project activities

CSA aims to build evidence-based agricultural development strategies, policies and investment frameworks to improve **food security**, facilitate **adaptation** to climate change, and seek opportunities to **mitigate** GHG emissions, compatibly with countries' national food security and development goals.



Expected Outputs of FAO's first climate-smart agriculture project



An evidence base: Combines (i) socio-economic, land use, climate data; (ii) institutional, policy, program mapping; (iii) current baseline and compared with potential CSA pathway; (iv) costs and benefits of action.

Coherent policies and strategic direction for CSA: Draw on existing national/sub-national policy, planning, investment instruments. Promote integration, alignment and coordination across policy instruments, institutions, stakeholders. Provide strategic vision and how to get there.

Investment proposals for Implementation: identify priorities for action, resource requirements; develop/use metrics showing additional CC costs and benefits; facilitate access to possible sources of financing, including climate finance.



Knowledge and tools to Facilitate Integration of Climate Change into the Fisheries and Aquaculture

Technical guidance on climate change relevant to vulnerable fisheries and aquaculture systems – supporting the sector's involvement in broader CC discussions

- ***Global knowledge on impacts, vulnerabilities, adaptation and mitigation options in FI&AQ (2009)***
- ***Regional, national and local understandings of CC implications for FI&AQ (2010-2012)***
- ***FI&AQ in NAPA (2011) understanding countries' priorities & identifying potential gaps***
- ***Vulnerability assessments methodologies and their relevance to FI&AQ (2013) – Analysis of IPCC VA framework & experiences & recommendations for FI&AQ***
- ***Developing tools for adaptation – Participatory water quality monitoring systems, DRM***



Global Partnership on Climate, Fisheries and Aquaculture (PaCFA)



FAO Fisheries and Aquaculture Report No. 1047 FIP1/R1047 (En)
ISBN 978-92-5005100-7

Report of the
FAO/PaCFA EXPERT WORKSHOP ON ASSESSING CLIMATE CHANGE VULNERABILITY IN FISHERIES AND AQUACULTURE: AVAILABLE METHODOLOGIES AND THEIR RELEVANCE FOR THE SECTOR

Windhoek, Namibia, 8–10 April 2013



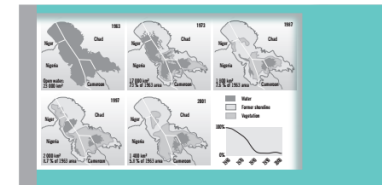
FAO Fisheries and Aquaculture Circular No. 1082 FIP/C1082 (En)
2013, 2014, 2015

SOCIAL-ECOLOGICAL VULNERABILITY OF CORAL REEF FISHERIES TO CLIMATIC SHOCKS



Climate change implications for fishing communities in the Lake Chad Basin
 What have we learned and what can we do better?

FAO/Lake Chad Basin Commission Workshop
 18–20 November 2011
 N'Djamena, Chad



Food and Agriculture Organization of the United Nations

www.fao.org/climatechange

Ongoing projects

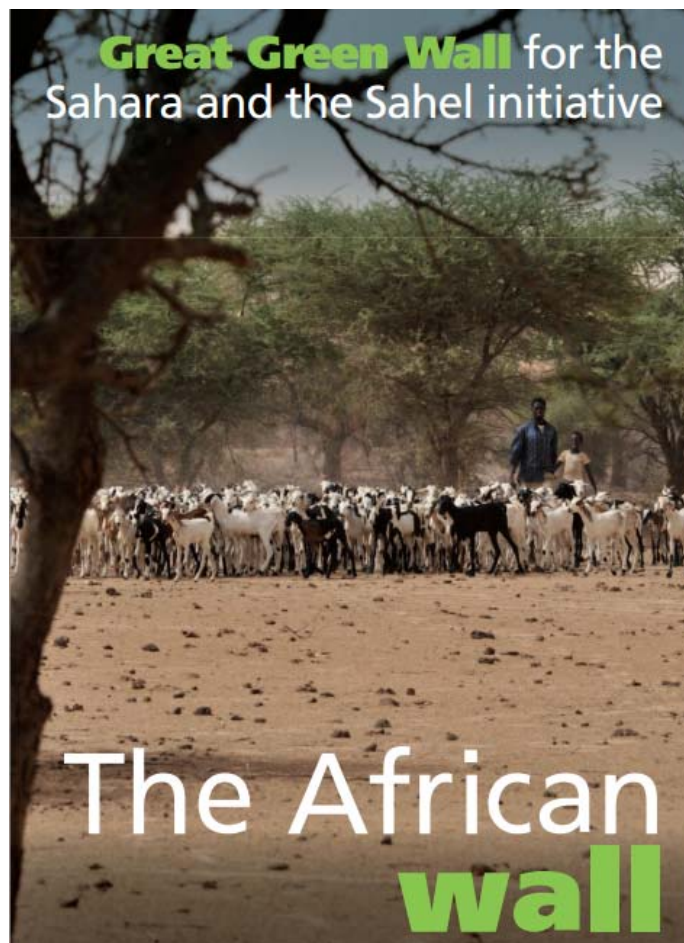
•EAF-Nansen project (NORAD)

Strengthening the Knowledge Base for and Implementing an Ecosystem Approach to Marine Fisheries in Developing Countries

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, including the development of standardized data collection, sampling methods and appropriate set of scientific indicators.
CAPACITY BUILDING	Output 4 Increased capacity at scientific and management level on EAF Approaches develop
SUPPORT TO REGIONAL RESEARCH VESSELS	Output 5 Advice on use of national or regional research vessels including coordinated coverage
PLANNING AND DISSEMINATION	Output 6 Increased capacity at scientific and management level on EAF Approaches develop



Ongoing projects



Vision: strengthen the resilience of the region's people and natural systems with sound ecosystems' management, sustainable development of land resources, the protection of rural heritage and the improvement of the living conditions of the local population

Objectives:

Improve the living conditions of populations in the arid zones of Africa and reduce their vulnerability to climate change, climate variability and drought.

Improve the state and health of ecosystems in the arid zones of Africa and their resilience to climate change, climate variability and drought.

Mobilize resources for the implementation of the Great Green Wall Initiative through the establishment of efficient partnerships between national, regional and international stakeholders.



Economics of climate change and policy implications for food production and trade

- Strong demand for **better understanding** of the implications of CC on agriculture and the **role of economics and socio-institutional dimensions** to ensure effective adaptation and appropriate policies for the development of sustainable food and agricultural markets.
- FAO is developing **tools and methodologies** to enhance capacity to integrate climate-smart policies into national and sectoral agricultural strategies
- Analysis and pilot projects in Kenya and Morocco and at regional level for West-Africa



Integrating climate change adaptation into national agricultural strategy for small holder agriculture - The case of Tadla-Azilal region, Morocco

- **Develop an integrated multi-disciplinary methodology** for climate-smart adaptation strategy including technical/scientific, economic and socio-institutional dimensions;
- **Develop tools and training materials** for climate change adaptation appraisal and program and investment planning at national and local levels;
- Assist policy makers in **mainstreaming climate change adaptation** in line with environmental sustainability, climate-smart and resilient agriculture; and
- **Strengthen national capacity** in analysis and planning for climate change and resilient agriculture



Integrated impact assessment of climate change on the tea growing areas in Kenya

Generate evidence of climate change impacts on tea production in Kenya, through a series of biophysical and socio-economic analyses; and

- **Provide policy support** on climate change and tea to the government as a template for a broader climate-smart agriculture development strategy and a more general climate change policy.



Some ongoing global, regional programs

- **Food for the Cities**
 - rural-urban linkages and inclusive food production systems (UPA/F/H)
- **Assessment of indigenous knowledge** in CCA strategies and integration in national policies and planning
- **NEPAD-FAO and Smartfish program** to boost sustainable fisheries development in Africa & improve standard of living of fishers
- **Voluntary guidelines** on land tenure and inland wetlands
- Enhancing Climate Change Resilience in the Benguela Current Fisheries System (GEF) and Protection of the Canary Current Large Marine Ecosystem (LME) (GEF)
- Strengthening capacity for Climate Change Adaptation in Land and Water management (Kenya, Tanzania, Ethiopia, West Africa)
- Forests, Rangelands and Climate Change Adaptation in Southern Africa



Ways forward in FAO work to support adaptation of agricultural sectors

- Support to country led policies & planning processes
- Knowledge (data, tools, information and sharing of experiences)
- Comprehensive capacity development
- Inclusive approach on food security and climate change
- New Strategic Framework -> broad support



Thank you for your attention



Food and Agriculture Organization of the United Nations

www.fao.org/climatechange