

E-LEARNING TOOL “PLANNING FOR COMMUNITY BASED ADAPTATION TO CLIMATE CHANGE”

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Regional Office for Asia and the Pacific

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Asia-Pacific Climate Change Adaptation Forum
October 22nd 2010, Bangkok, Thailand

E-LEARNING TOOL

“PLANNING FOR COMMUNITY BASED ADAPTATION TO CLIMATE CHANGE”

- Developed by FAO in collaboration with University of Freiburg (Germany), building on experience with e-learning tool “Climate and flood forecast applications in agriculture”
- Objective:** A training and self learning tool to support awareness raising and capacity building on “Planning for adaptation to climate change in agricultural sectors”
- Target groups:**
 - field technicians and extension staff in agriculture and related sectors in developing countries
 - governmental and non-governmental organizations engaged in implementing CC adaptation projects
- 4 interactive learning modules in English language**
- Accessible through: <http://www.webgeo.de/fao-webgeo-2-intro/>

INTRODUCTION

Planning for Community based adaptation to climate change (CBA)



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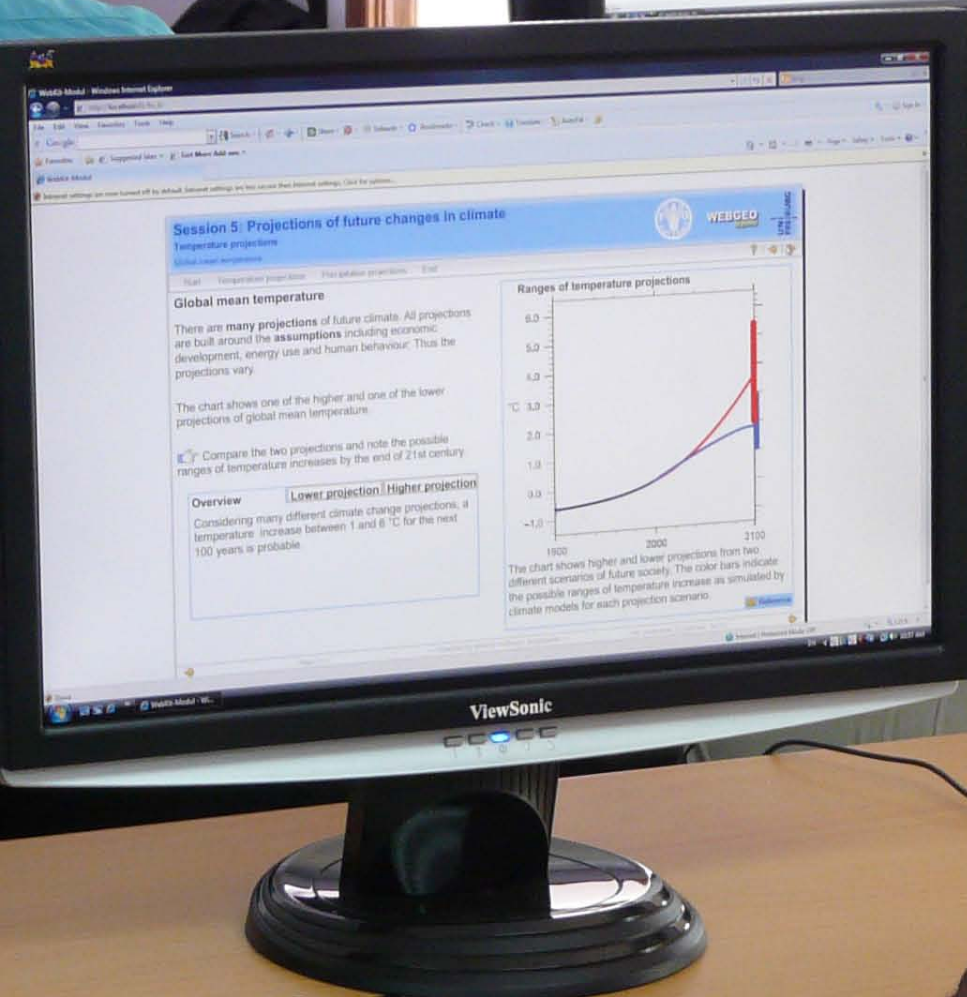
The **e-learning tool** on "Planning for Community Based Adaptation to climate change" is prepared to assist development partners, agricultural extension staff, community based organizations and field practitioners, who face the challenge to initiate and facilitate adaptation processes at community level. The tool provides basic knowledge to guide the planning for adaptation to climate change at local level with special emphasis on agriculture.



Course modules:

- 1 **"Climate Change"** describes the scientific basis.
- 2 **"Climate change and Food security"** discusses climate change impacts on agriculture and food security, and introduces the concept of adaptation to climate change.
- 3 **"Preparing for Community Based Adaptation"** introduces steps, methods and tools needed to prepare and launch processes for community based adaptation (CBA) on the ground.
- 4 **"Implementing Community Based Adaptation"** provides guidance on how to facilitate local CBA implementation processes.





STATUS QUO

Testing and dissemination strategy

- Released after in-depth testing in developing countries, and further fine-tuning, thereafter, based on feedback
- freely available, on the web and CD-ROMs
- field testing already done in Nepal, Bangladesh and Philippines and other countries.

How to use it?




- stand alone; but modules can also be picked individually, can be used in 2-3 days workshops
- useful materials to design interactive training processes, including guided training sessions (1 / 2 day session per module) combined with self-learning
- each module is composed of several sequential learning sessions including interactive exercises
- the tool is structured along a global perspective with specific field examples including video clips from various countries

KEY FEATURES

1. Holistic and structured step-by-step guidance from ABC of Climate Change to Community Adaptation Planning and implementation
2. Compass to figure out direction in complexity in community adaptation planning/implementation. (Provide hints, keys to solve problems/stacked situations.)
3. Beyond a manual, emphasizing on:
 - (1) explaining “why it is important” and encouraging deep thinking,
 - (2) local specificity, not “one size fits all” and providing diverse tools,
 - (3) significance of long-term and sustainable perspective.

1. Holistic and structured step-by-step guidance from ABC of Climate Change to Community Adaptation Planning and implementation

Planning for Community based adaptation to climate change (CBA)
Introduction to the e-learning tool
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- Session 2: Key climate variables and climate change
- Session 3: Climate change and climate variability
- Session 4: Climate related disasters
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- Session 6: Impacts of climate change
- Session 7: Causes of climate change
- Module Summary

Module 2: Climate change and food security

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- Session 2: Effects on food security
- Session 3: Adaptation to climate change
- Session 4: Examples of adaptation practices to climate change
- Session 5: Synergies of adaptation, mitigation and food security
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- Session 3: Testing adaptation options
- Session 4: Monitoring and evaluation
- Session 5: Adaptation and development linkages
- Session 6: Difference to Business-as-usual
- Module Summary

MODULE1: CLIMATE CHANGE

Session 3: Climate change and climate variability

Example event

Corresponding time series



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Start

Example event

Concepts

End

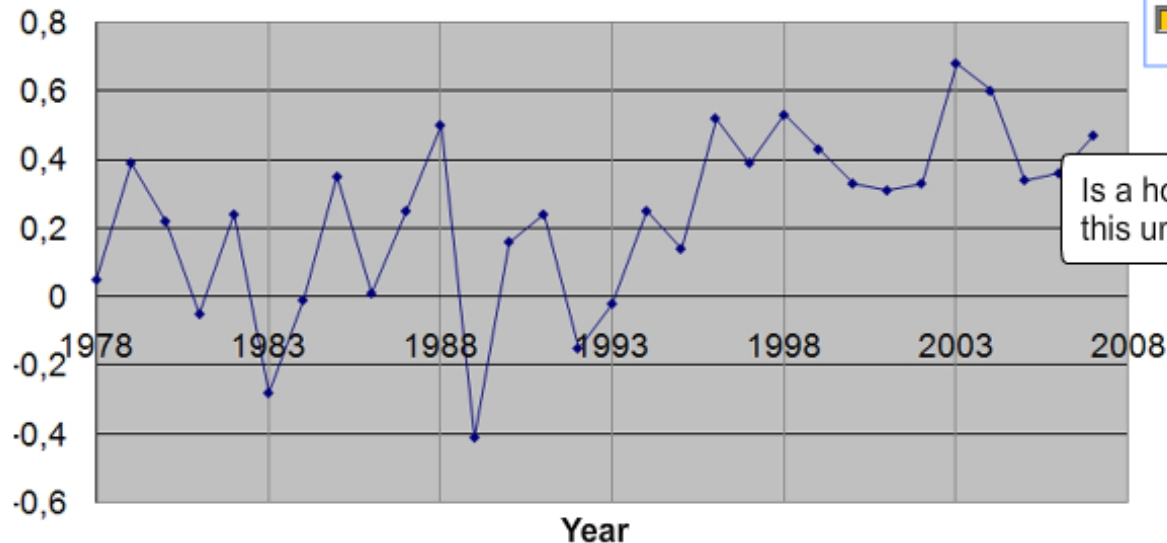


Corresponding time series

Extension service provided Michael and John with the following graph.

Understand the time series of the **annual mean temperature** during the last 30 years by following the discussion by Michael and John (in the bottom right).

Deviation from annual mean temperature (°C)



30-year time series of annual mean temperature in Michael and John's village in Sudan.

- Mark this year
- Mark comparable or warmer years
- Mark colder years

Discussion of Michael and John

Is a hot year like this unusual?

I don't know. Let us look first if there were other years like this in the past.



Michael



John

1 of 5 ▶ next

MODULE1: CLIMATE CHANGE

Session 5: Projections of future changes in climate

Precipitation projections

Dry extremes



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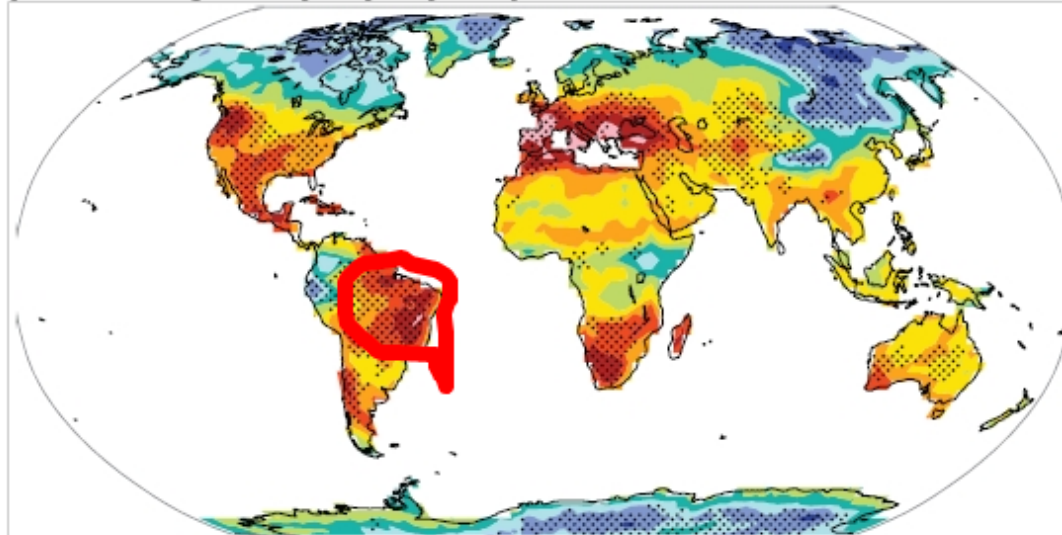
Start Temperature projections Precipitation projections End



Dry extremes

Find the regions with the highest increase in dry days, and then mark them in the map.

Projected change in dry days by the year 2100



(std. dev.)
decrease -1.25 -1 -0.75 -0.5 -0.25 0 0.25 0.5 0.75 1 1.25 increase

Show solution Reset

Reference

MODULE 2: CLIMATE CHANGE & FOOD SECURITY

Module Introduction

Module 2: Climate change and food security



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Module Introduction

Mitigation, the reduction of greenhouse gas emissions, is essential to tackle climate change. However, even immediate massive emission reductions cannot avoid future negative impacts. Therefore, **adaptation is equally important**.

This module will focus on **adaptation to climate change**.



Farmer using palm leaves in soil preparation to protect vegetable seeds and young plants from sun, wind and water.

This overview shows the **module structure**.

Module structure

- Module Introduction
- Session 1: **Examples of impacts** on agriculture and rural livelihoods
- Session 2: **Effects** on food security
- Session 3: **Adaptation** to climate change
- Session 4: **Examples** of adaptation practices to climate change
- Session 5: **Synergies** of adaptation, mitigation and food security
- Module Summary

We suggest to go through the individual sessions **one by one**.

Time schedule

You will need about **1 hour and 25 minutes** to complete the entire module.

MODULE 3: PREPARING FOR COMMUNITY BASED ADAPTATION

Module Introduction

Module 3: Preparing for community based adaptation



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Module Introduction

Climate change will have significant impacts on agriculture and food security. **Adaptation is needed** to better manage upcoming risks and benefit from new opportunities.

Adaptation is a learning process. **Community based approaches are most suitable** to guide local adaptation processes in agriculture, building on existing livelihood patterns and opportunities.



Community participation in local resource mapping in Bangladesh

This module will help you to understand how to get prepared for launching community based adaptation processes.

Module structure

Module Introduction
Session 3.1: Community based adaptation
Session 3.2: Understanding institutional settings
Session 3.3: Understanding changing risk patterns
Session 3.4: Local situation assessment
Session 3.5: Participatory tools and methods
Session 3.6: Identifying adaptation options
Module Summary

Time schedule

You will need about **2 hours and 30 minutes** to complete the entire module.

MODULE 4: IMPLEMENTING COMMUNITY BASED ADAPTATION

Module Introduction

Module 4: Implementing Community Based Adaptation



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Module Introduction

Community based adaptation processes constitute an ideal framework for field testing adaptation options in a practical learning by doing mode, and to consolidate local adaptation plans. Successfully tested adaptation practices and lessons drawn from the implementation processes establish the basis to advise planners and policy makers on up-scaling and mainstreaming into overall development.



This module will help you to understand how to implement community based adaptation.

Module structure

Introduction

Session 4.1: Community mobilization

Session 4.2: Community action plans for adaptation

Session 4.3: Testing adaptation practices

Session 4.4: Monitoring and evaluation

Session 4.5: Adaptation - development linkages

Session 4.6: Difference to business-as-usual

Summary

Time schedule

You will need about **2 hours and 30 minutes** to complete this module.

2. Compass to figure out direction in complexity of community adaptation planning/implementation.

Session 2: Understanding institutional settings

Actors of community based adaptation

Key actors and institutions



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Start Actors of community based adaptation Climate change initiatives End



Key actors and institutions

Getting a clear picture of the relevant **institutional setting** and of the key **actors** is a priority at the beginning of any community based adaptation process.

Check the sample lists of key actors below and reflect which actors you consider key for CBA planning.

Key actors of CBA

- Political actors
- Formal organizations
- Formal membership organizations
- Informal organizations
- Economic actors
- Socio-cultural institutions
- Private entrepreneurs

Reset

Informal organizations

- Labour exchange groups
- Rotating saving groups
- Farmer Field Schools
- Women's groups/clubs
- Neighbourhood groups such as for draught oxen sharing

Examples



A herders cooperative in China - example of a formally registered membership group. The members agree on their roles for hazard risk reduction.

Reference

2. Compass to figure out direction in complexity of community adaptation planning/implementation.

Session 2: Understanding institutional settings

Actors of community based adaptation

Role of actors: Venn diagram (Instructions)



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Start Actors of community based adaptation Climate change initiatives End



Role of actors: Venn diagram (Instructions)

In the following pages, you will be asked to create a Venn diagram of the actors relevant for your CBA planning process.

☞ Think about a community you know well. Identify key actors and describe their CBA related functions by writing them into the circles on the following page. Then select their type and rate their importance for CBA. Choose from the following table:

Types of key actors

- Government
- Non-governmental organization (NGO)
- Private sector
- Community organization

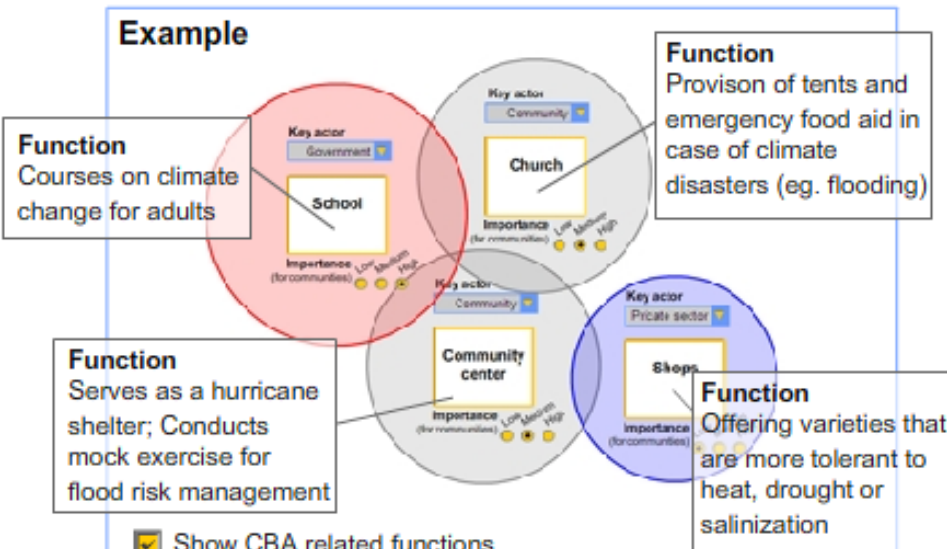
Importance

- Low
- Medium
- High

☞ Then, drag the circles in order to place them according to the relationships between key actors. Closely cooperating actors should be positioned close to each other, or even overlapping in case they are composed of the same people; not strongly related actors are placed in distance from each other.

If you don't need a circle anymore, you can irreversibly (!) delete it by dragging it out of sight.

Example



☒ Show CBA related functions

This community regarded the school as a key actor cooperating with the church and the community center.

If you want to further use your results, press [Print Scr] on your keyboard to save it temporally; then copy it into an open document (e.g. *.doc or *.ppt) by pressing [Strg] and [V] simultaneously.

Otherwise, your results will be lost after the exercise!

3. Emphasis on (1) explaining “why it is important” and encouraging deep thinking,

Session 1: Community Mobilization




Contents

Role of community mobilization in CBA

Start


Contents

End

Role of community mobilization in CBA

Community mobilization is a continuous process complementing the planning and implementation of community based adaptation. During the planning stage it facilitates assessments, during implementation it facilitates action.

 See during which stages community mobilization is important, and related to which aspects of CBA. Click on the arrow on the bottom of the page to obtain more details.

Stages and aspects of CBA for which community mobilization and participation is crucial




Planning for adaptation <ul style="list-style-type: none">Vulnerability and risk assessmentMobilizing local actorsIdentification of coping strategies and local adaptation practicesAwareness raising for long term action	Implementation <ul style="list-style-type: none">Selection of adaptation practicesParticipatory extensionLearning exchangeMonitoring of field trials	<ul style="list-style-type: none">Field based demonstrationsEvaluation of results from adaptation trialsSocio-economic feasibility analysesReplication of adaptation options
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3. Emphasis on (1) explaining “why it is important” and encouraging deep thinking,

Session 1: Community Mobilization

Contents

Role of community mobilization in CBA



Start | Contents | End

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Role of community mobilization in CBA

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Stages and aspects of CBA for which community mobilization and participation is crucial

Planning for adaptation	Implementation	
Vulnerability and risk assessment	Selection of adaptation practices	Field based demonstrations
Mobilizing local actors	Participatory extension	Evaluation of results from adaptation trials
Identification of coping strategies and local adaptation practices	Learning exchange	Socio-economic feasibility analyses
Awareness raising for long term action	Monitoring of field trials	Replication of adaptation options

Local actors must be fully aware about their existing adaptation potential, their roles and the contributions they could make to a CBA process; sometimes they must be encouraged/mobilized to take active roles. Public debate/discussion helps to create positive recognition. It also builds up local peer pressure, which catalyses people to take responsibilities.

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3. Emphasis on (2) local specificity, not “one size fits all” approach and providing diverse tools,

Session 3: Testing Adaptation Practices

Testing and dissemination process

Extension methods and tools



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Start

Testing and dissemination process

End



Extension methods and tools (examples)

Use the richness and experiences for your current extension methods and enrich them as appropriate using below suggestions.

👉 Review the following extension methods and tools which proved suitable in several FAO projects :

Examples

- Orientation meetings
- Field demonstrations
- Technical training sessions
- Field days
- Climate field schools
- Use of pamphlets/leaflets
- Farmer rallies
- Farmer-to-farmer exchange visits
- Live and video performances

Field days

A field day is a group extension event conducted at the demonstration site.

Successful field days are a curcial aspect of the demonstration programme.

During the field day, the demonstrations are presented and discussed , highlighting successes and challenges.

Each group member can invite at least two neighbour farmers for the field day. The farmers themselves present the demonstrations and explain the adaptation practice to the visiting farmers.



3. Emphasis on (3) significance of long-term and sustainable perspective

Session 4: Monitoring and Evaluation

Monitoring and Evaluation in CBA

Need for systematic monitoring

Start

Monitoring and Evaluation in CBA

End

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Need for systematic monitoring

Farmers will **adapt autonomously** if they can, irrespective of external interventions. An example:

In northwest Bangladesh many land owners planted **mango trees** in their rice fields, mainly for economic gain but also because the mango is well adapted to the increasingly dry conditions. This is taking place unplanned and in an uncoordinated way. In a few years it will have a negative impact. The trees become large and **shade the rice crop** beneath.

Local food production and availability will decrease, and many landless laborers working on the rice fields will lose their work. This may lead to internal migration in search of employment, which is especially critical in densely populated areas.

The project in Bangladesh presented *Ziziphus Jujubi* as an alternative practice since it does not cause the same shading.

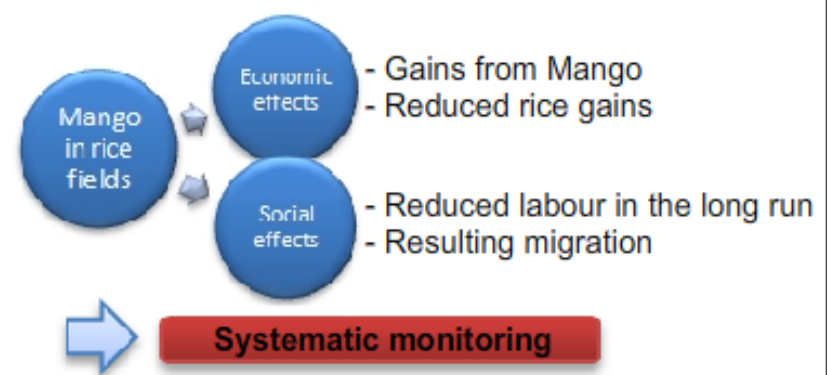
It is necessary to monitor and analyse also the wider impacts of adaptation actions. The first choice may not always be the best for all. Systematic monitoring of the implementation process helps to avoid mistakes with fatal consequences like **risk of mal-adaptation**.

Mango tree



Growing mango tree in the rice fields in Bangladesh.

Reference



Thank you

You can access this toolkit from

<http://www.webgeo.de/fao-webgeo-2-intro>

Welcome your feedback or CD-ROM request to

Kenya.Konno@fao.org