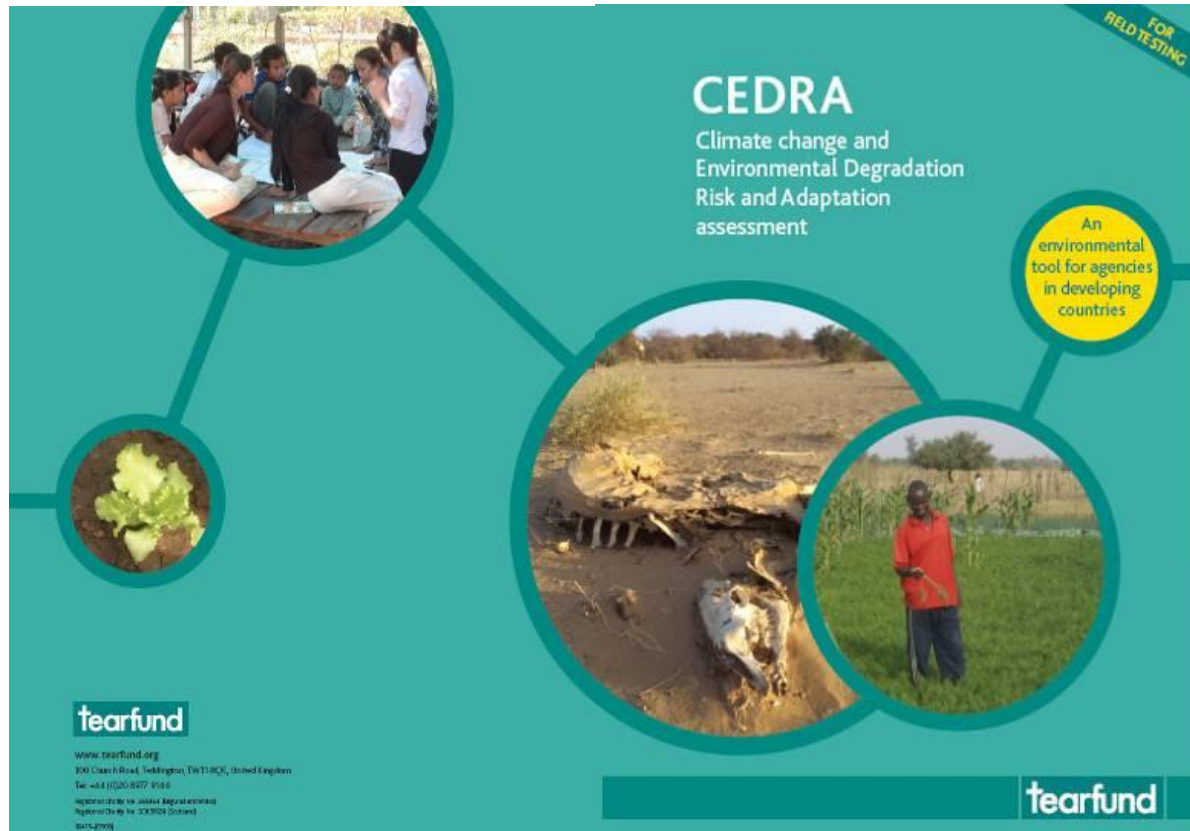


Please note that this presentation was given during the United Nations Climate Change Conference (COP-15) in Copenhagen, December 7-18, 2009 for more information please visit

<http://www.cop15.state.gov/> .



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# CEDRA: Building climate resilience for the most vulnerable

Mike Wiggins - Tearfund

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# What is CEDRA?

A process that equips local agencies and communities they work with to become resilient to climate & environmental change



# Why develop CEDRA?

- Partners reporting weather changes
- Partner requests for help
- No other tools available



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# Linkages

CEDRA is cross sectoral . . .



CEDRA helps:

- build on existing approaches: EAs, DRR, IWRM, Sustainable Agriculture approaches



# Why use CEDRA?

CEDRA is:

- for non-experts
- participatory
- helps the most vulnerable
- multi-agency



**Bangladesh: Flood evacuation route**

# The CEDRA process

## Step 1

identify environmental hazards

- Identify climatic zones
- Identify information needed
- Compile question list
- Collect scientific information
- Community knowledge

## Step 2

prioritise hazards to address

- review project portfolio & development goals
- identify possible impacts
- assess risks
- prioritise hazards

## Step 3

select adaptation options

- understanding adaptation
- evaluate alternatives
- build on existing approaches
- adapt existing projects
- new adaptation projects

## Step 4

address unmanageable risks

- stop some projects
- work in new locations
- collaborate with other agencies or government

## Step 5

consider new projects & locations

- prioritise the most vulnerable locations & people

## Step 6

continual review

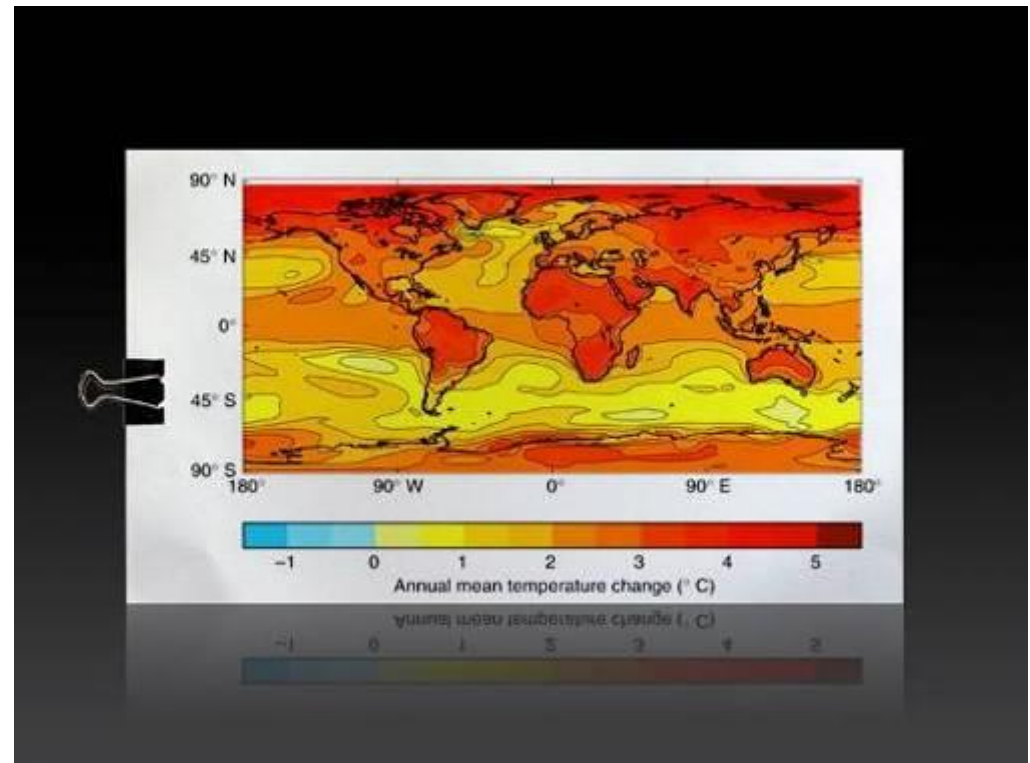
- M&E & annual review
- update action plan
- keep environmental records
- disseminate findings

# Step 1

identify environmental hazards

- access climate projections
- community knowledge
- other environmental change
- government responsibilities
- collaborating with others

CEDRA helps access climate change projections



## Sources:

- Climate 1 Stop
- Adaptation Learning Net
- World Bank Climate Portal
- PRECIS
- SERVIR
- ORCHID
- CRiSTAL
- ELDIS

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# Step 1

## identify environmental hazards

- access climate projections
- community knowledge
- other environmental change
- government responsibilities
- collaborating with others

access to  
in-country  
climate and  
environment  
knowledge

# Local sources of information

Source	Description	Website
National Communication (NC)	Contains information on greenhouse gas emissions and national vulnerability to climate change.	<a href="http://unfccc.int/national_reports/non-annex_i_natcom/items/2979.php">http://unfccc.int/national_reports/non-annex_i_natcom/items/2979.php</a>
National Focal Points	The person who is the national 'Climate Change Focal Point' should be a useful contact for relevant government departments and for links regarding advocacy work.	<a href="http://maindb.unfccc.int/public/nfp.pl">http://maindb.unfccc.int/public/nfp.pl</a>
National Adaptation Programme for Action (NAPA)	Contains national priority adaptation activities which will make the country less vulnerable to climate change.	<a href="http://unfccc.int/adaptation/napas/">http://unfccc.int/adaptation/napas/</a>
National Action Programme to Combat Drought and Desertification (NAP)	Contains useful information on soil and wildlife patterns, environmentally-related issues, as national plans to combat desertification.	
National Platforms for Disaster Risk Reduction	Contains links to government departments that have a national platform for disaster risk reduction, along with relevant national Focal Points.	

- National Focal Points
- Meteorological office
- Environment, Water & Health Ministries
- Red Cross Climate Centre
- Universities
- Local airports
- Local government – WATSAN, agriculture, Public Health officers

# Step 1

## identify environmental hazards

- access climate projections
- **community knowledge**
- other environmental change
- government responsibilities
- collaborating with others

# Integrate community knowledge



# Step 1

identify environmental hazards

- access climate projections
- community knowledge
- other environmental change
- government responsibilities
- collaborating with others

Triangulate between climate models, communities, local & national government, academics, Met office, etc.

# Multi stakeholder approach



# Step 2

prioritise hazards  
to address

- review project portfolio & development goals
- identify hazards
- risk assessment
- prioritise hazards

## Risk based approach

PART 2: Project risk assessment (incorporate analysis from Exercises 2.1, 3.2 and 3.3)  
Sig = Significance of Impact: (4 = High, 1 = low) Lik = Likelihood of Impact: (4 = High, 1 = low) Risk = Risk = Significance of Impact x Likelihood of Impact

A Sector(s)	B Projects	C CC and/or ED Impacts	D Sig	E Lik	F Risk	G Adapt
1 Livelihoods	Microcredit enterprises	Erratic rainfall could mean enterprises fail	4	3	12	
		Predicted landslides mean communities may need to relocate.	2	2	4	
2 Agriculture	Tree nurseries	Rapid run-off is reducing soil quality.	3	4	12	
		Changes in rainfall mean tree pests breed faster; trees are dying. Likely to get worse.	4	4	16	
	Alley cropping	Trees may be susceptible to tree pests, preventing them from protecting crops	3	2	6	
3 All sectors	All projects	The risk of flooding could lead to beneficiaries' homes being destroyed. This may affect their involvement in the project.	4	4	16	
4 New sector	New project	Potential impacts associated with this project	2	1	2	

prioritise actions

# Step 3

## select adaptation options

- understanding adaptation
- compare alternatives
- adapt existing projects
- stop existing projects
- new adaptation projects

# Participatory adaptation

. . . develop their own adaptation responses

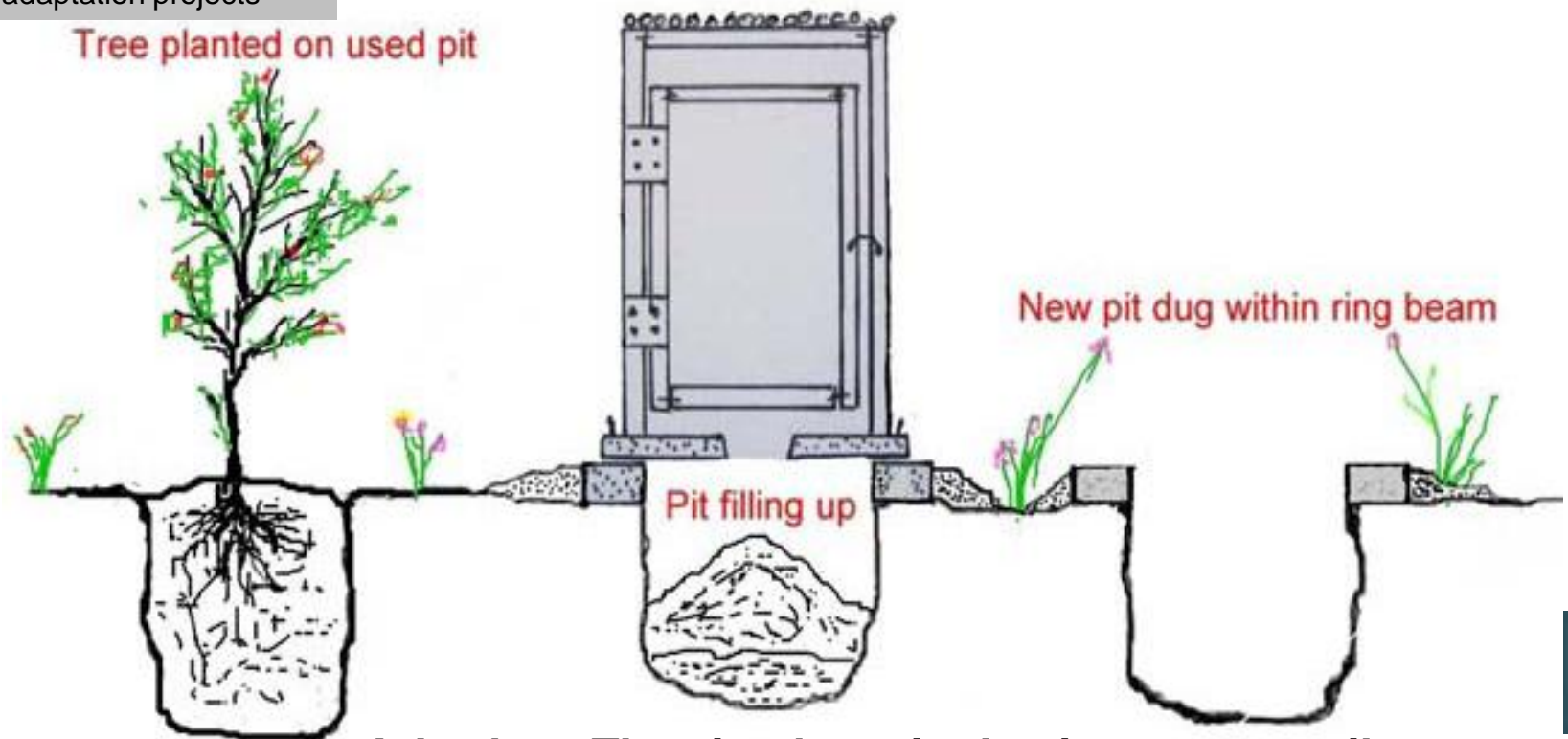
C CC and/or ED Impacts	D Sig	E Lik	F Rsk	G Adaptation option
Erratic rainfall could mean enterprises fail.	4	3	12	Diversify to include enterprises that are not all reliant on rain.
Predicted landslides mean communities may need to relocate.	2	2	4	No action. Or possibly avoid risk by relocating livelihood sites.
Rapid run-off is reducing soil quality.	3	4	12	Cooperate with a local land protection group in the local council and monitor their progress on constructing contour bunds to slow down water run-off and retain soil.
Changes in rainfall mean tree pests breed faster; trees are dying. Likely to get worse.	4	4	16	No manageable solution could be found regarding tree pests.
Trees may be susceptible to tree pests, preventing them from protecting crops	3	2	6	Local NGO, Eco-trees, have agreed to identify and provide new tree species for alley cropping and to monitor them for resilience.
The risk of flooding could lead to beneficiaries' homes being destroyed. This may affect their involvement in the project.	4	4	16	New project retrofitting homes to strengthen them against flooding. Local government technical officer has provided design and has agreed to inspect them at completion.
Potential impacts associated with this project	2	1	2	New proposed adaptation project may itself need adapting.

# Step 3

## select adaptation options

- understanding adaptation
- compare alternatives
- adapt existing projects
- stop existing projects
- new adaptation projects

## Build on existing tools & approaches



**Arborloo - The simplest single pit compost toilet**

# Step 4

address  
unmanageable risks

- stop some projects
- work in new locations
- collaborate with other agencies or government

CEDRA helps agencies to . . .

. . . reallocate  
risk or  
identify  
alternative  
projects



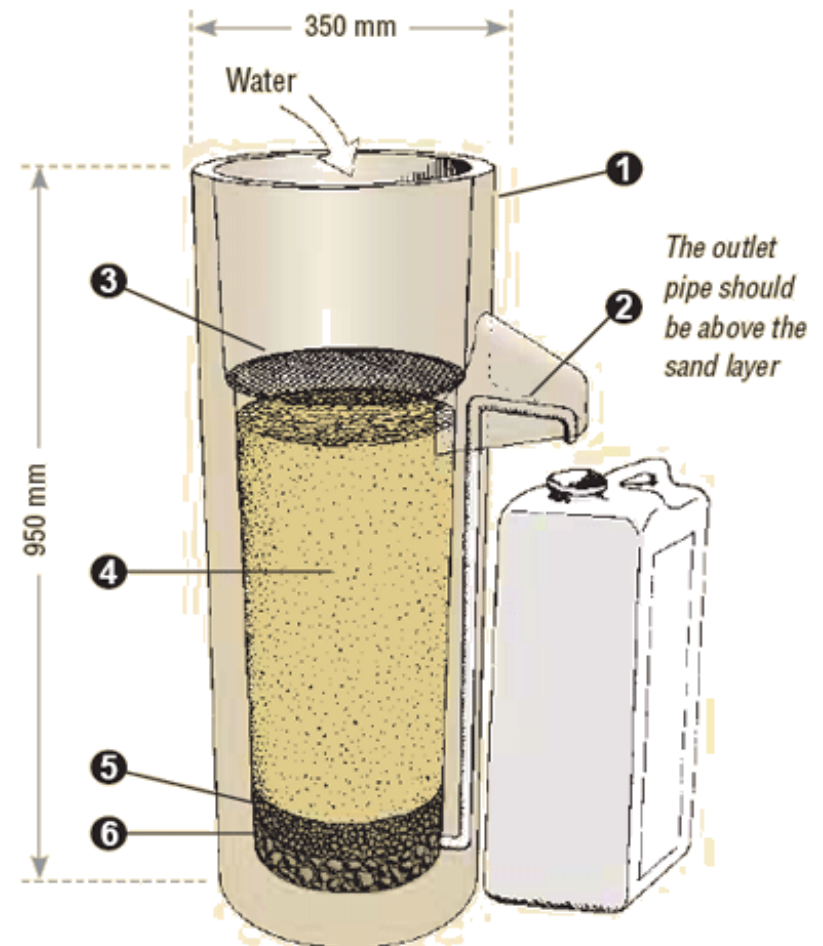
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# Step 5

consider new projects  
& locations

- prioritise the most vulnerable locations & people

## Prioritise the most vulnerable







# Collaborate

## Action Plan & Dissemination

### PART 1: Background information (incorporate key findings from boxes 1, 4 and 15 for each zone where you work)

1a Scientific information	<ul style="list-style-type: none"> <li>• Variations in rainfall mean that crop yields in the mid-altitude zone are already declining in the Central district and there is a projected decrease in crop yields of 30% or more by 2023.</li> <li>• Increased rainfall in the country by 30% in December to February and by 75% in March to November, by 2020.</li> <li>• The risk of landslides has increased.</li> </ul>
1b Community experiences	<ul style="list-style-type: none"> <li>• Seasons are not so dry used to be. The rainy season is unpredictable, shorter and rainfall is more intense.</li> <li>• Crops are falling due to waterlogging and crop pests breeding faster. This means more work for us as you grow women.</li> <li>• Our health is suffering because there is not enough food due to crop failures, and we are the last ones to eat (allow more).</li> <li>• We can't fit species of animals and 12 species of plants that have disappeared from this area over the last 30 years.</li> </ul>

### PART 2: Project risk assessment (incorporate analysis from Boxes 21, 3, 2 and 4)

Sig = Significance of Impact (2=High, 1=low) Lik = Likelihood of Impact (2=High, 1=low) Risk Lik = Significance X Likelihood (Multiply Figures 2 and 6)

A Sector(s)	B Projects	C CC and/or ED Impacts	D Sig	E Lik	F Risk	G Adaptation option
1. Livelihood	Microcredit enterprise	Drought rainfall could mean enterprise fail.	4	3	12	Diversify to include enterprises that are not all reliant on rain.
		Reduced land fertility mean communities may need to relocate.	2	2	4	No action. Or possibly avoid risk by relocating livelihood sites.
2. Agriculture	Tree nurseries	Rapid run-off is reducing soil quality.	3	4	12	Cooperate with the local land extension groups in the local council and monitor their progress on constructing terraces back to slow down water run-off and make soil.
		Changes in rainfall mean tree jobs need faster trees are dying. Likely to get worse.	4	4	16	No manageable solution could be regarding tree jobs.
	Project: Introducing new drought / flood resistant root vegetables	(Projects are likely to be low crop chosen in parts, drought and flood resistant.)	n/a	n/a	n/a	n/a
	Alley cropping	Trees may be susceptible to tree pests preventing them from protecting crops	3	2	6	Local NGO, Eco team, have agreed to identify and provide new tree species for alley cropping and to monitor them for resilience.
3. All sectors	All projects	The risk of flooding could lead to bene starter homes being destroyed. This may affect their investment in the project.	4	4	16	New project retrofitting homes to strengthen them against flooding. Local government technical officer has provided design and has agreed to inspect them at completion.
4. New sector	New project	Subsided impacts associated with the project.	3	1	3	New proposed adaptation project may help road clapping.

**NOTE**  
In practice, your findings will probably be more than those given here.

Stop the project!

### PART 3: Any decisions made to work in new zones or with new beneficiaries (see Exercise 5.1)

We've been going with HIV and AIDS will be most vulnerable to the identified impacts from climate change and environmental degradation. We have compared different types of projects and have identified that an advocacy project would be an effective way of addressing this need.

# Piloting CEDRA

- Piloted in Burkina Faso, Uganda & Malawi
- In progress in Nepal, Bangladesh, DR Congo, Haiti & Brazil
- Planned in 14 countries
- 52 agencies requested training
- Other INGOs adopting/ adapting CEDRA



# Feedback on CEDRA

At last I know how to protect our people from the bad weather

Climate change changes everything

Our projects are now safe and won't fail

Now we work well together with other agencies

At last we have answers for our communities

This is the most urgent problem for our people

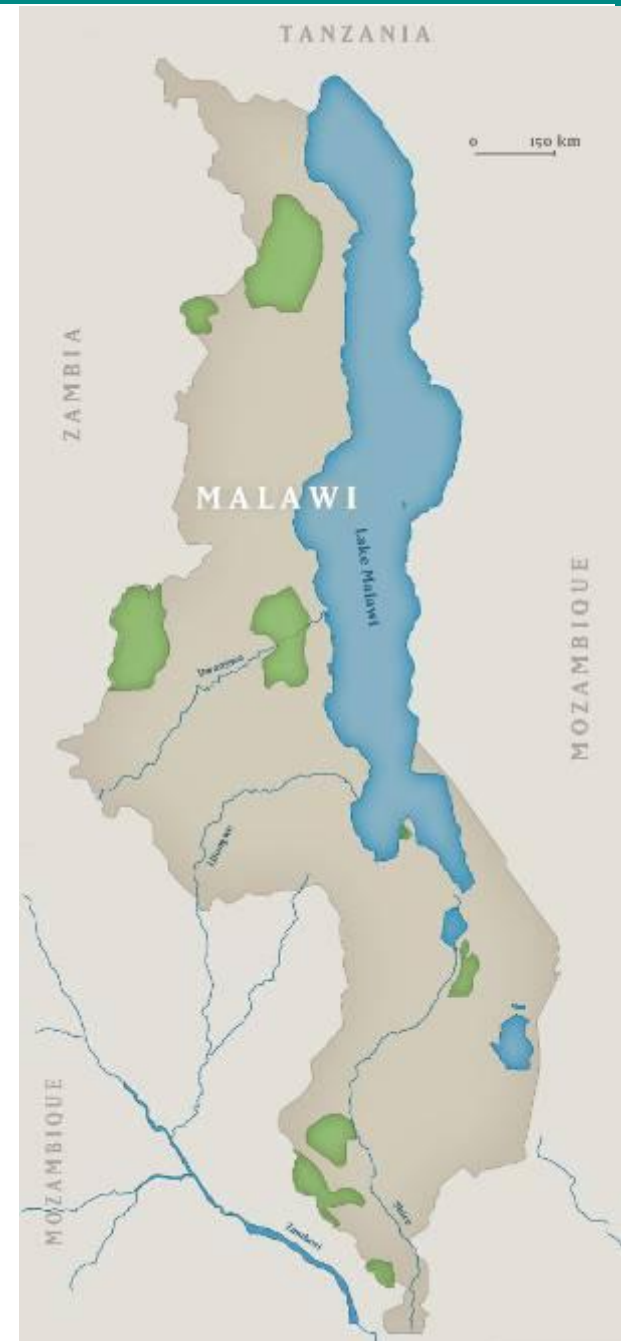
You have shown me how to stop our projects failing

I finally understand what this climate change is

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# CEDRA in Malawi

Implemented CEDRA in 5 districts – North, Central and South



# Climatic impacts



Flood damage

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# Climate impacts



Damage from strong winds

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# Participants feedback



“CEDRA helped us understand how environmental issues affect all the work we do, to share ideas and learn from each other.”

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# Adaptation project



Community gardening

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# Adaptation project



Drought resilient crops

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# Adaptation project



Flood protection

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