


# Livelihoods and Climate Change

**IUCN**  
The World Conservation Union

**iisd** International Institute for  
Sustainable Development  
Institut International du  
Développement Durable

**inter  
cooperation**  
Manejo de Recursos Naturales  
Economía Rural  
Gobernabilidad Local y Sociedad Civil

**SEI** STOCKHOLM  
ENVIRONMENT  
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Boston Centre

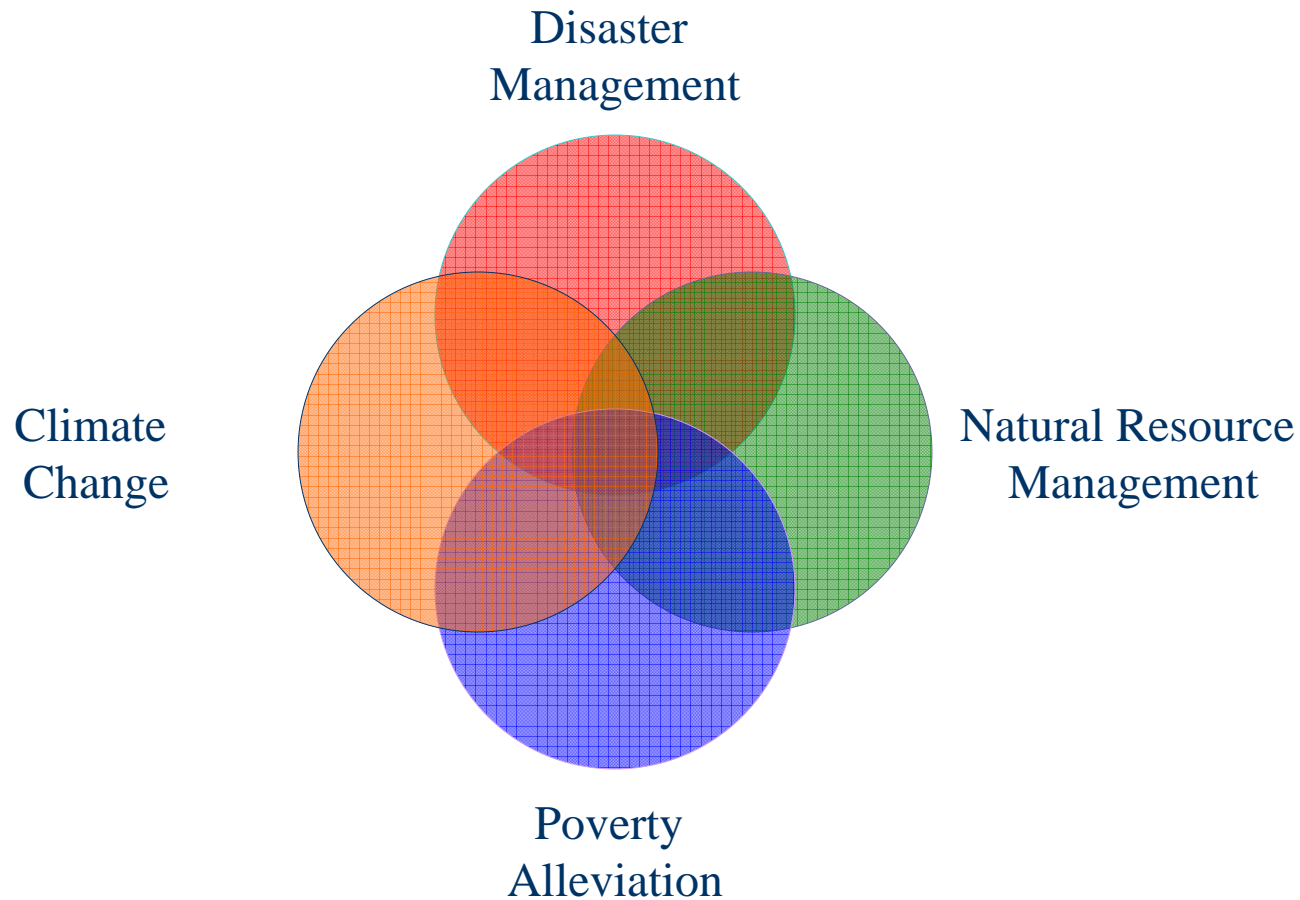
 DIRECTION FÜR ENTWICKLUNG UND ZUSAMMENARBEIT **DIZA**  
DIRECTION DU DÉVELOPPEMENT ET DE LA COOPÉRATION **DDC**  
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International Workshop on Community Level  
Adaptation to Climate Change  
Dhaka, Bangladesh, January 2005

# Our Starting Point

- Treatment of adaptation:
  - Emphasis on top-down planning approaches
  - Tendency towards conventional measures including large-scale infrastructure
  - Adaptation stands in isolation to socio-economic sectors
- Need for:
  - **Bottom-up** approaches rooted in existing **community-based patterns of resource management**
  - Strategies aimed at **sustaining & enhancing the livelihoods** of vulnerable people

# Bringing Four Families Together



# Conceptual framework

## Livelihood assets:

- Availability of natural, socio-political, human, physical, & financial assets determine how people respond to climate-induced vulnerabilities
- Form basis of adaptation strategies
- For poorest and most vulnerable → natural resources of particular importance

# Project Screening Tool

## 1. What is climate context of project?

*Purpose:* to orient the project manager toward the climate context of the project area and enable them to think through the relationship between the project and local, climate-related coping strategies.

- What are potential climate change impacts?
- What are current climate hazards and impacts?
- How do people cope?

## 2. What is livelihood context of project?

*Purpose:* to assist the user in thinking through the project context in a sustainable livelihoods framework, and specifically in terms of the 5 livelihood assets.

- What assets are key to people's livelihoods?
- How are these related current climate?
- How are these related to climate coping strategies?

## 3. How do project activities relate to key capitals?

*Purpose:* to enable the user to identify aspects of the project that are directly linked to local coping and adaptive capacity.

- Is their impact positive, negative, neutral?

## 4. How can project activities be adjusted?

*Purpose:* to help users clarify how project activities with a positive impact on coping and adaptive capacity can be enhanced and how activities with a negative impact can be adjusted.

# Climate context: Identifying potential climate change impacts



The scroll bar offers the user a list of regions and links them to the summary description of climate impacts and vulnerability for the selected region, as described in e.g., IPCC, 2001 and Watson et al. 1998.

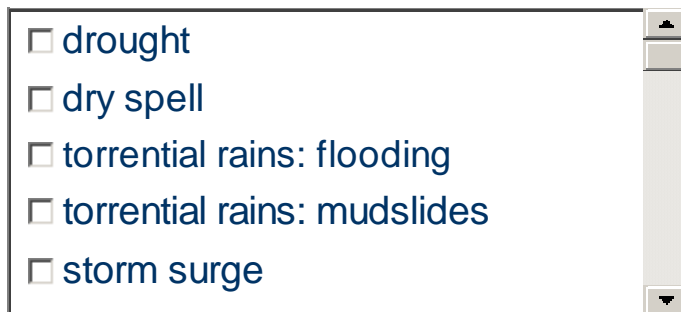


The scroll bar offers the user a list of all countries and would link the user to the UNFCCC National Communications V&A Assessment for that country, if available



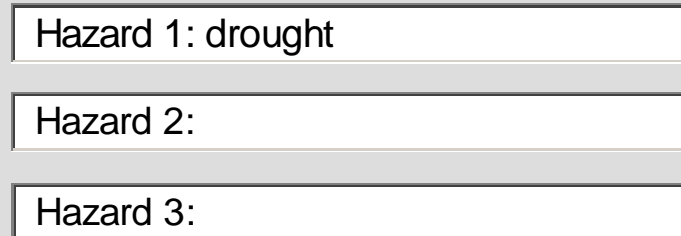
The scroll bar offers the user a range of ecological zones and would link them to relevant report summaries on those zones. One option would be to use the IPCC "regional/ sectoral concerns", and link the user directly to that material in the TAR.

# Climate context: Identifying current hazards



drought  
 dry spell  
 torrential rains: flooding  
 torrential rains: mudslides  
 storm surge

The scroll bar offers the user a list of major climate hazards. Users can select more than one hazard, if multiple hazards impact the project area.



Hazard 1: drought  
Hazard 2:  
Hazard 3:

Sample Output for the Bara CBRRP.

# Climate context: Identifying current impacts

Hazard 1: Drought

- crop loss (household food deficit)
- crop loss (income loss)
- disease
- livestock mortality
- property loss

The scroll bar offers the user a list of major impacts associated with climate hazards. For each identified hazard, users can select associate impacts. Users can select to enter additional impacts, if those that are relevant to the project area are not offered.

Hazard 1: Drought

Impact 1: crop loss (household food deficit)

Impact 2: crop loss (income loss)

Impact 3: livestock mortality

Sample Output for the Bara CBRRP.

# Climate context: Identifying current coping strategies

Impact 1: crop loss (household food deficit)

- asset liquidation
- crop switching/substitution
- income diversification
- livestock restocking
- migration
- replanting

The scroll bar offers the user a list of major coping strategies associated with climate impacts. For each identified impact, users can select all coping strategies that apply. Users will enter additional coping strategies, if those that are relevant to the project area are not offered.

Impact 1: crop loss (household food deficit)

asset liquidation

food storage

replanting

Sample Output for the Bara CBRRP.

# Climate context: profile

In the project area, the primary climate hazard(s) is:

Sample Output for the Bara CBRRP.

Hazard 1: Drought

In the project area, the primary impacts associated with this hazard(s) are:

Impact 1: crop loss (household food deficit)

Communities/households in the project area use the following strategies to cope with Impact 1:

asset liquidation

food storage

replanting

Impact 2: crop loss (income loss)

Communities/households in the project area use the following strategies to cope with Impact 2:

asset liquidation

income diversification

migration

# Livelihood context: what do local people rely on?

Natural capital

- forest products (firewood)
- forest products (building)
- forest products (income)
- .....
- Other (please specify)

- The scroll bar offers the user a list of major types of livelihood assets.
- For each of the 5 assets, users will select those types that are particularly important to local livelihoods.
- In many cases, the user will need to enter additional assets not offered by the list.
- Selected assets will appear in the box below, where users will use slide bars to respond to the three questions?

	To what extent does it directly support local livelihoods?	To what extent is it influenced by a key climate hazard?	To what extent is it related to coping strategies?
	0 1 2 3 4 5	0 1 2 3 4 5	0 1 2 3 4 5
groundwater supply	<input type="range"/>	<input type="range"/>	<input type="range"/>
livestock	<input type="range"/>	<input type="range"/>	<input type="range"/>
productive grassland	<input type="range"/>	<input type="range"/>	<input type="range"/>
productive soil	<input type="range"/>	<input type="range"/>	<input type="range"/>

# Livelihood context: profile

In the project area, important types of **natural capital**, with a strong association to local livelihoods, climate and/or coping are:

livestock

groundwater supply

productive grassland

productive soil

In the project area, important types of **physical capital**, with a strong association to local livelihoods, climate and/or coping are:

wells

water pumps

grain storage facilities

In the project area, important types of **financial capital**, with a strong association to local livelihoods, climate and/or coping are:

household savings

credit

In the project area, important types of **human capital**, with a strong association to local livelihoods, climate and/or coping are: ...

# Project activity screening

View profiles

Display climate context

Display livelihood context

Natural K 1: Productive grassland

Natural K 2: livestock

Effect of activity

Negative  
Neutral  
Positive  
Unknown  
N/A

- Rehabilitate grasslands
- Improve grazeland mgr
- 
- ...
- 
- 

Enter notes

Effect of activity

Negative  
Neutral  
Positive  
Unknown  
N/A

Enter notes



# Adaptation management planning

View profiles

Display climate context

Display livelihood context

Natural K 1: Productive grassland

Project activities for follow-up	Existing indicator	Effect of activity			Revised indicator	Effect of activity		
		Negative	Positive	NA		Negative	Positive	N/A
3.5 Provide animal health training	24 CAHW	<input type="checkbox"/>	<input type="checkbox"/>	L	24 CAHW	<input type="checkbox"/>	<input type="checkbox"/>	L
4.1 Coordinate livestock restocking	Goats for goats	L	<input type="checkbox"/>	<input type="checkbox"/>	Sheep for goat	<input type="checkbox"/>	L	<input type="checkbox"/>
4.4 Coordinate grasslands replanting	600 ha sp. Y	<input type="checkbox"/>	L	<input type="checkbox"/>	600 ha sp. Y/Z	<input type="checkbox"/>	L	<input type="checkbox"/>
...		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# Screening process outputs

Climate context profile	Livelihood context profile
Project activity screening: Activities for follow-up	
4.1 Coordinate livestock restockin	Goats for goats
4.4 Coordinate grasslands replant	600 ha sp. Y
Adaptation management plan: Adjustments to planned/ongoing activities	
3.5 Provide animal health training	24 CAHW
4.4 Coordinate grasslands replant	600 ha sp. Y/Z

# We want your feedback

- Are the information requirements reasonable?
- Could you see project implementers using this tool?
- Would your organization be interested in testing the tool?
- How can the information and lessons that the tool generates be put to use?

