

Choosing and Designing Climate Change Adaptation Audits

Copenhagen, 24 March

Kristine Lien Skog and
Ragnar Brevik

Agenda

09:05-10:10

Session 1:

How to identify risks in adaptation planning

10:10-10:30

Coffee break

10:30-11:40

Session 2:

Adaptation audit experiences

Adapting to climate change by Ms Simpson, UK

Adaptation and water issues by Mr Kikas, Cyprus

Floods and landslides, Mr de Caprona, Norway

11:40-11:50

Coffe break

11:50-13:00

Session 3:

Adaptation group work

Group work discussion (40 min)

Plenary discussion and conclutions

Objective

At the end of this session, participants will understand the four step approach to choose and design audits on climate change adaptation.

Four-step approach

Step 1. Obtain an overview of your country's vulnerability to climate change



Step 2. Map the government's responses in adapting to climate change



Step 3. Choose audit topics and priorities



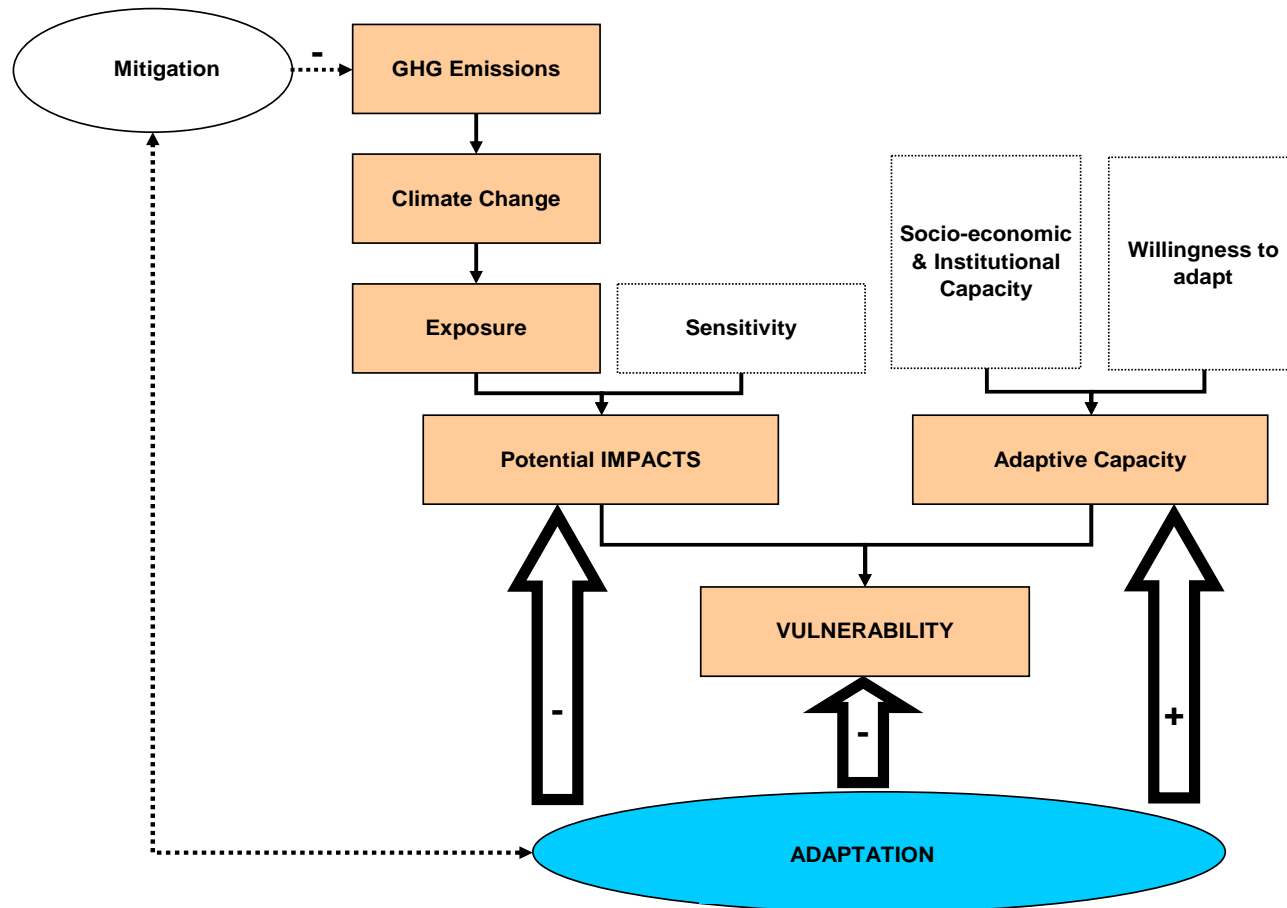
Step 4. Design the audit

Step 1: Obtain an overview of your country's vulnerability to climate change

Key questions:

- What are the actual and potential impacts of climate change?
- What is the adaptive capacity?
- What is the vulnerability to climate change?

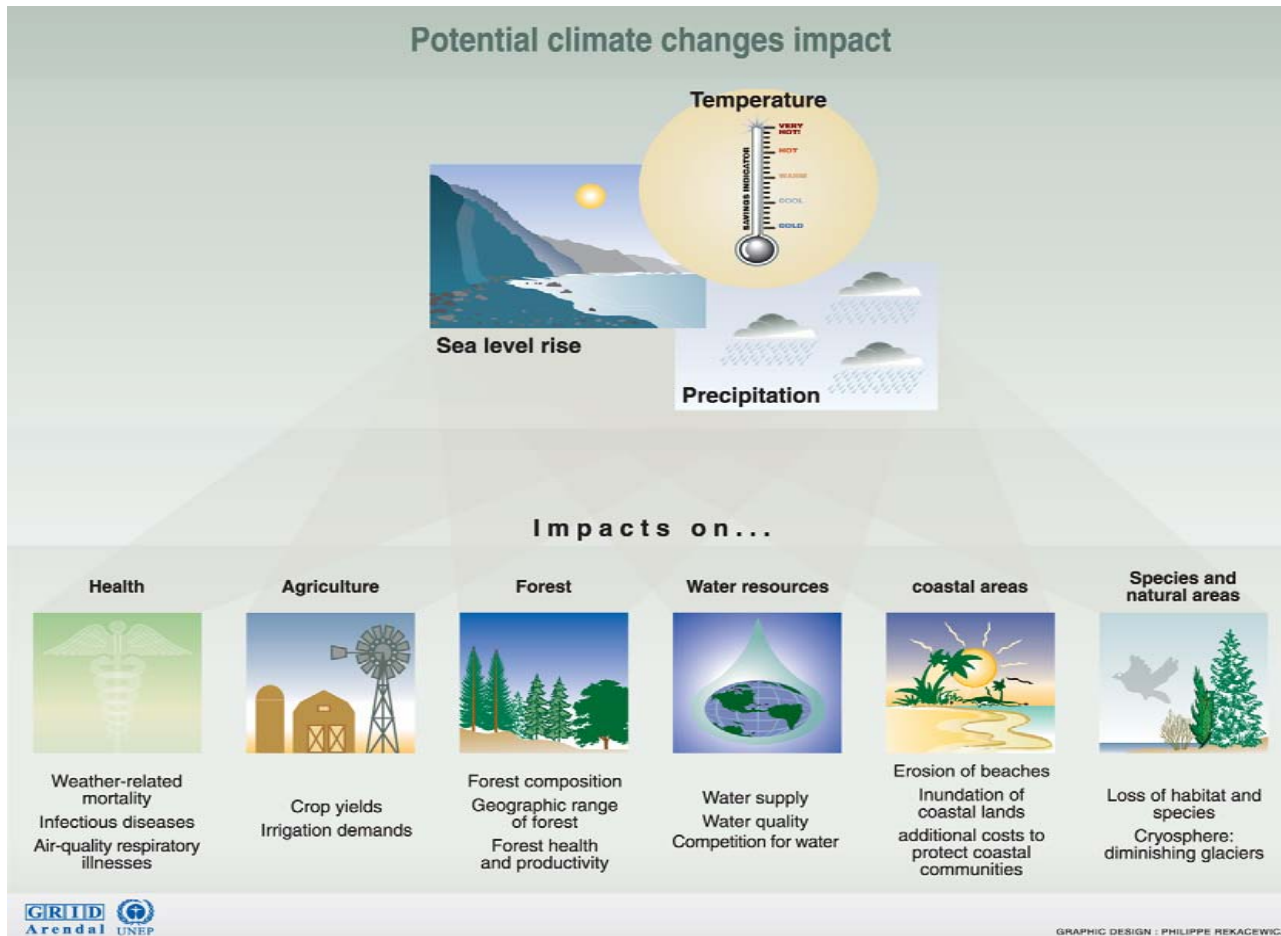
Step 1: Obtain an overview of the country's vulnerability to climate change



Step 1: Definitions – adaptive capacity and vulnerability

- Adaptive capacity is the ability or potential of a system to respond successfully to climate variability and change.
- Vulnerability is a system's inability to cope with the adverse effects of climate change

Key question: What are the actual and potential impacts of climate change?



Vulnerability example from Europe

- Impact: Severe water stress
 - Reduce impact: water harvesting, wastewater reuse, desalination
- Adaptive capacity: Ability to cope with water stress
 - Increase adaptive capacity: land-use planning (legislation), water management, willingness to conserve water
- Vulnerability: The number of additional people living in water-stressed watersheds increases to between 16 and 44 million

Source: IPCC and Schröter et al. (2005)

Step 1: Small group discussion

Give an example of climate change threats in your country:

- What are the expected and potential impacts?
- What is the adaptive capacity in your country?
- What is your country's key vulnerabilities?

Step 2: Map the government's response in adapting to climate change

Key questions:

- What are the objectives and targets of adaptation policies? (2.1)
- What are the policy instruments for adaptation? (2.2)
- Who are the public players and what are their roles and responsibilities? (2.3)

2.1: What are the objectives and targets of adaptation policies?

- International agreements
- Regional agreements
- National policy

2.1: International agreements (1)

UNFCCC:

- *Shared but differentiated responsibilities*
- Not time bound or country specific
- Commitments:
 - Formulate and implement programmes
 - Developed countries shall assist developing countries
 - Cooperation

2.1: International agreements (2)

- The World Summit on Sustainable Development (WSSD) *Biodiversity*
- The Convention on Biological Diversity (CBD)
- Water agreements
- The Millennium Development Goals
- Etc.

2.1 Regional agreements

- White Paper: Adapting to climate change
 - http://ec.europa.eu/environment/climat/adaptation/index_en.htm
- Directive on the assessment and management of flood risks
 - http://ec.europa.eu/environment/water/flood_risk/index.htm

2.2: What are the policy instruments for adaptation?

- Legal
- Economic
- Organisation
- Other

2.3: Who are the public players and what are their roles and responsibilities?

- Ministry of Environment:
- Sector ministries, e.g., agriculture, energy, transport
- Different levels of government:
 - Directorates
 - Regional and local authorities

Step 2: Small group discussion

Describe the climate change response in your country in relation to the vulnerabilities detected:

- What are the targets and objectives?
- Who are the main players and their responsibilities?
- Has the government developed an adaptation strategy?

Step 3: *Choose audit topics and priorities*

- Main objective: decide the objectives of the audit
- Main planning tool: risk analysis

”Risks could be defined as the probability of suffering harm or loss. The greater the negative consequences relating to the risk, the more consideration should be given to the problem.”

Step 3: *Choose audit topics and priorities*

Performance	Inputs Resources assigned	Production / delivery process Action done	Outputs Services provided	Outcome Objectives met
Risk assessments	Economy	Efficiency		Effectiveness
	How are the timing, amount and reliability of money spent? Are physical, material and human resources used efficiently?	Are policies, procedures and controls established to ensure timeliness, quantity and quality at lowest costs?	Are completed work units and services appropriate to ensure timeliness, quantity and quality at lowest costs?	Are short and long term results in line with objectives and intentions at lowest costs?
	•Unit costs of inputs	<ul style="list-style-type: none"> • Governance • Productivity • Unit costs of outputs 		<ul style="list-style-type: none"> •Goal achievement •Cost-effectiveness •Customer satisfaction

Step 3: *Choose audit topics and priorities*

Where to find information regarding risks?

- Government reports to the Parliament
- Official reporting, evaluations, etc
- Scientific publications
- Press coverage
- Interviews (NGO, Scientists, officials)

Step 3: Choose audit topics and priorities

Key questions:

- Has the government assessed the key vulnerabilities in a proper manner? (Efficiency risk analysis.)
- Has the government developed an efficient overall plan or strategy? (Efficiency risk analysis.)
- Has the government addressed the need for climate change action in the most vulnerable sectors and areas? (Efficiency risk analysis.)
- Are the financial resources misstated? (Efficiency risk analysis.)
- Are the appropriate actions being undertaken to adapt to the identified vulnerabilities? (Effectiveness risk analysis.)
- Is the government focusing on keeping the costs of adaptation as low as possible? (Economy risk analysis.)

Step 3: Main considerations

- Is the vulnerability assessment been carried out properly?
- Is the overall adaptation plan or strategy developed and sufficient?
- Is the government well prepared for adaptation in the most vulnerable sectors?

Step 3: Choose audit topics and priorities

- **Is the government prepared for increased threats to**
 - ...extreme weather events?
 - ...flooding?
 - ...water supply?
 - ...food supply and agriculture?
 - ...biodiversity?
 - ...fisheries?
 - ...health-related threats?

Step 3: *Choose audit topics and priorities*



Concluding key question: What should be the audit objectives?

- Are the prioritised risks at the overall or sector level, or both?
- How will the audit add value?

How to identify the audit objective?

Situation:

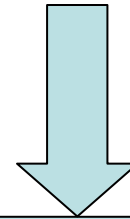
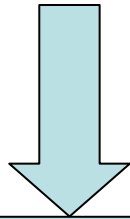
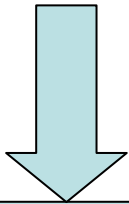
What is the
Environmental
problem?

Complication:

What has the
government done
to reduce the
problem?
Is it sufficient?
(performance risks)

Materiality:

Why is the issue
important?
Consequences when
performance risks are
likely

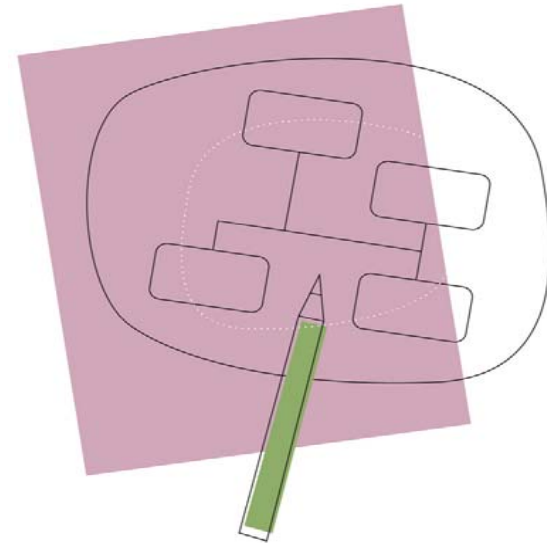


Audit objective:

What do you want to achieve
through the audit? What is the added value of the audit?

Step 4: Design the audit

- Design matrix
 - Audit objective
 - Researchable questions
 - Audit criteria
 - Methodology
 - Findings, evidence



Step 4: Design the audit

Audit objective

Researchable question	Audit criteria	Methodology	Findings, evidence

Step 4: design the audit

Possible audit questions:

- Have the responsible ministries identified the climate change-related threats?
- Does the government have an overarching policy, plan or strategy in place?
- Is the governance of adaptation efficient?
- Are policy instruments effective?

Exercise

- 1) Identify the risks
- 2) Design a draft audit plan

40 minutes group discussion

Presentations in plenary

Conclusions

- What are the challenges in carrying out adaptation audits?
- How can such audit implementation risks be mitigated?