

**Adaptation measures  
implementation  
matrix  
(Chapter 5)**

## **Adaptation measures implementation matrix**

**Institutional and legislative  
setup analysis and assessment  
for adaptation  
implementation plan.**

**Identification of Barriers  
to adaptation to Climate  
change impacts**

# **Institutional and legislative setup analysis and assessment for adaptation implementation plan**

## **approaches for the analysis**

**Governance description**

**Governance design**

**Governance emergence**

# Governance description

**Describe the actors and institutions relevant for adaptation in the water And Health sector**

**Review the institutional context for adaptation, and identify levels of decision-making: at national governments, local governments and private individuals levels**

**Requires no strong theoretical assumptions on the part of the analyst, and contributes to adaptation by providing a more comprehensive description of the policy context in which adaptation takes place.**

# Governance Design

Addresses the question of how to design effective institutions, on the theoretical assumption that the link between institutions and outcomes can be understood and predicted with some confidence

One kind of governance design is policy analysis where it seeks to determine “which of various alternative policies will achieve a given set of goals in light of the relations between the policies and the goals .It is applied ex-ante to improve the design of policies, programmes or projects.

Critical task is “climate proofing” the policy in question. “Proofing” policies involves addressing relevant risks early in the policy formulation process, to identify any obvious effects on other sectors or objectives. (see GIZ, 2011, for climate-proofing development plans)

# Governance emergence

**Aims at understanding and explaining governance emergence**

**Provides input regarding institutional attributes that enhance the adaptive capacity of actors faced with climate risks**

**Prescriptions need to be supplemented by contextual knowledge when implementing adaptation interventions.**

Method type	Governance description	Governance emergence		Governance design	
		Understanding case	Generalizing design principles	Policy screening	Policy proofing
<b>Task</b>	Identifying the relevant actors and institutions for adaptation	Explaining the emergence of governance systems which enables adaptation		Identifying policies that ensure goals are not negatively affected by climate change impacts	
<b>Adaptation situation</b>	Vulnerability impacts and adaptation are a result of many actors interacting and making interrelated decisions			Climate change risks to policy goals are not known	Climate change risks to policy goals are known
<b>Theoretical assumptions</b>	None	Attributing an out-come to an institution is only possible on a case by case basis.	It is difficult to attribute outcomes to a particular institution.	There is a direct predictable relationship between policies and outcomes.	



# **Roles and Responsibilities**

## **Group exercise**

**(2 groups, 7 professionals each)**

*(Use of flip chart)*




# Objective of the exercise:

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- To rank identified key actors in terms of adaptive capacity, importance for climate adaptation, and for seizing opportunities
- To assess their degree of interaction with one another.
- To map divisions of responsibility across the key actors who are involved in identified areas or sectors. This will enhance the ability to decide how to proceed with: (i) long-term planning (ii) crisis management and (iii) seizing opportunities related to climate change.

**The Case  
Climate Change  
Adaptation (or  
intervention)**





**Identification of Barriers to  
adaptation to Climate change  
impacts.**

# Important concepts

Selecting best CC adaptation measure should be based on barriers-opportunities analyses to decrease the gap between the market potential of a technology or practice and the economic, socioeconomic, or technological potential.

A barrier is any obstacle to reaching a potential that can be overcome by a policy, programme, or measure,

An opportunity is a situation or circumstance to decrease the gap between the market potential of a technology or practice and the economic, socioeconomic, or technological potential

Common barriers to implementing some adaptation measures and practices are related to financial, planning, institutional and technical capacity, and social aspects

## Opportunities for more effective integration of climate change adaptation within development activities (OECD, 2006)

**Making climate information more relevant and usable**

**Developing and applying climate risk screening tools**

**Using appropriate “entry points” for climate information**

**Shifting emphasis to implementation rather than developing new plans**

**Encouraging meaningful co-ordination and the sharing of good practices**

**Table 8: Barriers and opportunities to successful implementation of climate change adaptation strategies. Adapted from Kareiva et al. (2007)**

<b>POLICIES AND PROCEDURES</b>	
<b>Barrier</b>	<b>Opportunity</b>
Legislation and agency policies may be highly static, inhibit dynamic planning, impede flexible adaptive responses and force a fine-filter approach to management.	Re-evaluate capabilities of, or authorities under, existing legislation to determine how climate change can be addressed within the legislative boundaries.
Seasonal management activities may be affected by changes in timing and duration of seasons	Review timing of management activities and take advantage of seasonal changes that provide more opportunities to implement beneficial adaptation actions.
Agency policies do not recognize climatic change as a significant problem or stressor.	Take advantage of flexibility in the planning guidelines and processes to develop management actions that address climate change impacts.

## HUMAN AND FINANCIAL CAPITAL

Lack of incentive to take risks, develop creative projects; reward system focuses on achieving narrowly prescribed targets; funds allocated to achieve targets encourage routine, easily accomplished activities.

Shift from a culture of punishing failure to one that values creative thinking and supports incremental learning and gradual achievement of management goals.

Little to no climate expertise within many management units at the regional and local level; disconnect between science and management that impedes access to information

Use newly created positions or staff openings as opportunities to add climate change expertise; train resource managers and other personnel in climate change science

National and regional budget policies/processes constrain the potential for altering or supplementing current management practices to enable adaptation to climate change; general decline in staff resources and capacity

Look for creative ways to augment the workforce and stretch budgets to institute adaptation practices (e.g., individuals or parties with mutual interests in learning about or addressing climate change that may be engaged at no additional cost).

## INSTITUTIONAL COORDINATION & COLLABORATION


Political boundaries do not necessarily align with ecological processes; some resources cross boundaries; checkerboard ownership pattern of public and private lands at odds with landscape-scale management

Identify management authorities/agencies with similar goals and adjacent lands; share information and create coalitions and partnerships that extend beyond political boundaries to coordinate management; acquire property for system expansion.

## INFORMATION AND TOOLS

Often no inventory or baseline information on condition exists, and nothing is in place to detect climate change impacts.	Identify existing monitoring programs for management; develop a suite of climate change indicators and incorporate them into existing programs.
Historic conditions may no longer sufficiently inform future planning (e.g., “100-year” flood events may occur more often and dams need to be constructed accordingly)	Evaluate policies that use historic conditions and determine how to better reflect accurate baselines in the face of climate change; modify design assumptions to account for changing climate conditions.
Lack of decision support tools and models, uncertainty in climate change science, and critical gaps in scientific information that limits assessment of risks and efficacy and sustainability of actions.	Identify and use all available tools/mechanisms currently in place to deal with existing problems to apply to climate-change related impacts.
Occurrence of extreme climate events outside historical experience.	Use disturbed landscapes as templates for “management experiments” that provide data to improve adaptive management of natural resources.
Stakeholders/public may have insufficient information to properly evaluate adaptation actions, and thus may oppose/prevent implementation of adaptive projects (e.g., such as those that have ground-disturbing elements like salvaging harvests after disturbance and using herbicides before revegetating). Appeals and litigation from external publics often results in the default of no action	Inform public and promote consensus-building on tough decisions; invite input from a broad range of sources to generate buy-in across stakeholder interests.





**Approaches to strengthen  
the national policy  
frameworks**

**(Based on Tearfund, 2010)**

<b>Step</b>	<b>Goal</b>	<b>Approach</b>
1	Identify barriers and opportunities in relation to a good enabling environment for the integration of adaptation into the Health sector	Key questions to consider are:  Are there any legislative constraints or gaps that could inhibit implementation of effective adaptation?

<b>Step</b>	<b>Goal</b>	<b>Approach</b>
2	Undertake a 'Strengths, Weaknesses, Opportunities, Threats' (SWOT) analysis (or similar) of the overall findings from Step 1, with the aim of identifying ways to overcome problems and capitalize on strengths and opportunities.	SWOT analysis would form the basis of an attempt to seek ways of using the strengths to improve or overcome the weaknesses. As well as analyzing specific documents, plans and events, it is important to note that processes are also conducive to integration. For example, preparing National Communications and NAPAs, which involve the engagement of multiple stakeholders, particularly those at the national level, has been a good step forward for the integration agenda, despite the fact that NAPAs themselves are, arguably, currently too segregated from existing development planning.

Step	Goal	Approach
3	<p>Identify any catalysts that could aid the creation of supportive or stronger enabling environments, as expressed in national policy.</p>	<p>Key questions to consider are:</p> <ul style="list-style-type: none"> <li>•Are there any lessons to be learned from the disaster management community's experience in raising the priority of risk reduction following disaster events?</li> <li>•What is public/the media's opinion on climate change impacts affecting the country? For example: how regularly is climate change mentioned in the press? Do NGOs or CBOs working among communities report an awareness or concern regarding climate risks?</li> <li>•Is there any recent or new scientific evidence or are there observable impacts of climate change.</li> <li>•How and why were the priorities expressed in a NAPA or National Communication decided upon?</li> </ul>
4	<p>Facilitate awareness-raising among national authorities regarding the links between climate risks and present-day conditions.</p>	<p>Awareness-raising can include activities such as:</p> <ul style="list-style-type: none"> <li>•National media campaigns on climate impacts.</li> <li>•Internal government awareness-raising on the linkages between climate change, different sectors, and the health sector.</li> <li>•No regrets and low regrets approaches (which as well as supporting adaptation are effective in achieving development objectives regardless of climate change).</li> </ul>

Step	Goal	Approach
5	<p>a) Identify political champions to help overcome any barriers (such as lack of political will for adaptation, and lack of budgetary support) and to create and maintain high-profile momentum amid changing priorities.</p> <p>b) Develop regular contact with such key individuals as part of the ongoing multi-stakeholder dialogue on adaptation within the health sector. For example, key individuals could be asked to chair such meetings.</p> <p>c) Seek to influence national authorities and donors, drawing upon 'champions' for assistance to counteract and address clashes between sectors.</p>	<p>Key questions to consider are:</p> <ul style="list-style-type: none"> <li>•Is there anyone who can help strengthen the link on adaptation between the health ministry and national authorities (such as the finance and planning ministries or prime minister/ president's office) to help secure political support and financing for capacity development and implementation, and aid coordination across sectors?</li> <li>•For example, who was instrumental in the NAPA process or in the writing of National Communications to UNFCCC?</li> <li>•Who is best placed to strengthen the links between the health ministry and the likely priority sub-national and local levels?</li> </ul>

# The Yemen example

- Initiated by the Yemen National Adaptation Program of Action (NAPA) giving efforts to address climate change and other important environmental issues.
- It identifies the synergies and barriers to adaptation.
- Based on a general classification of adaptation barriers, potential barriers to implementation of adaptation measures including analyses and evaluation of each barrier according to their degree of severity.

- Barriers were classified according to the level where they are influencing into:
  - (1) Barriers at Multilateral Environmental Agreements level,
  - (2) Barriers at national policy level, and
  - (3) Barriers at program/project level.
- Barriers were classified based on their nature/type into:
  - (1) Institutional barriers,
  - (2) Political barriers,
  - (3) Cultural barriers,
  - (4) Economic/financial barriers,
  - (5) Technical barriers, and
  - (6) Social barriers.
- A rough assessment for each barrier was achieved according to their degree of severity and classified into three levels; High severity barriers, Medium severity barriers, and Low severity barriers.

<b>BARRIERS</b>	<b>Level</b>	<b>Type</b>	<b>Severity</b>
Weak institutional structures and environmental legislations (weak inter-related, lack of executive bills, poor implementation of laws and bills, weak law enforcement)	2	1	H
The institutional arrangement for Vulnerability and assessment (V&A) studies is weak	2, 3	1	H
Lack of policies to facilitate the implementation of Yemen NAPA	2	1, 2	H
Uncertainty about effectiveness and appropriateness of adaptation options	1, 2	5	M
Lack of appropriate data (in terms of lack of adequate monitoring and collection, difficulties experienced in accessing databases, lack of technical capacity to analyze and manipulate data for V&A and lack of quality assurance)	1, 2, 3	5	H
Uncertainties in regional, local climate change scenarios, Socio-economic scenarios	1, 2, 3	4, 5	H
Public awareness for policy- and decision makers on the subject of V&A is inadequate (lack of knowledge on CC and V&A, lack of ability of technical personnel to convey clearer and concise information on CC and V&A issues to policy- and decision makers)	2	2, 3, 5	H
Financial support is limited (inadequate financial capacity to develop or modify existing models and methodologies, lack of financial sources to implement the adaptation measures)	3	4	H



<b>BARRIERS</b>	<b>Level</b>	<b>Type</b>	<b>Severity</b>
Technical support is limited (lack of methodologies to identifying and collection of information, apply models and interpret results, inadequate technical capacity to develop or modify existing models and methodologies)	2, 3	5	H
Lack of coordination on cross-sectoral issues. Coordination and cooperation among national and technical cooperation programs/projects is very weak	3	1, 2, 5	M
Lack of awareness on vulnerability and climate change issues	1, 2, 3	4, 5	H
Little research work on the practical application of policy measures for adapting to climate change. National scientific community has not had an active role in addressing vulnerability and adaptation issues	1, 2, 3	4, 5	H
<b>Poverty</b> 1. Compounding problems of poor/worsening local conditions e.g. land degradation 2. Lack of community resources (financial, human, social) to enhance own resilience 3. Lack of local institutional capacity and resources to support community resilience building	1, 2, 3	4, 6	H
Low investment in environmental friendly technologies	2, 3	5	M



**Exercise**

**Roles and Responsibilities**

# Crisis management and long-term strategies within the health sector exercise

This exercise is developed to distinguish between crisis management on the one hand and more long term strategies on the other. Experiences have shown that sometimes there is confusion between these two issues, which makes it hard to analyze division of responsibility. This group exercise will try understand difference between these two issues for the health and water sector.

(Use Table A-6 in the Appendices to understand the current cooperation among different organizations.)

1. For each stakeholder already involved in the group, fill in the process stakeholder list including:
  - Name, organization, and position
  - Area of responsibility
2. In order to determine other people that should be included, go through the prepared questions below and see what other stakeholders come to your mind.
3. Fill in the details of each stakeholder in the list.

## ***Questions that may assist you in determining who to involve and why***

- What roles do various organizations play for local responses to CC?
- Who (function as well as person) can participate in the assessment?
- Who will be using the outcomes of the assessment of challenges and opportunities?
- Who will be the potential beneficiaries?
- Who will be adversely affected?
- Who has existing rights? Who has control over resources?
- Who is likely to be voiceless? Who can represent them?
- Who is likely to mobilize resistance?
- Who is dependent on whom?
- Who is responsible for the intended plans?
- Who has money, skills or key information?
- Whose behavior has to be changed to attain certain key goals?
- What power gaps exist between stakeholder groups? How should these be dealt with? In what way could each stakeholder be involved that will best aid the process?
- Who should be recipients of the assessment outcomes such as the final report?





**THANK  
YOU**

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