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UNDP's Monitoring Framework for Climate Change Adaptation

UFCCC Expert Meeting on Socio-economic information under the Nairobi work programme on impacts, vulnerability and adaptation to climate change

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- I. Challenges & principles for adaptation monitoring
- II. Monitoring at the local level (incl. socio-economic data)
- III. Next steps

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Socioeconomic information on adaptation

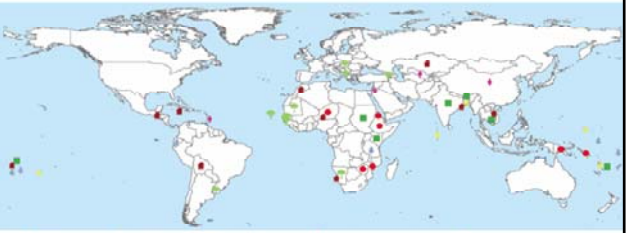
The link for UNDP: Adaptation Design, Tracking, and Evaluation

Adaptation is about **development effectiveness** through system-wide resilience

- What are the key processes and indicators linking adaptation and development “good practice” for monitoring both “progress toward” and “effectiveness of” adaptation?
- What are the measurable targets that can be defined in terms of development effectiveness or poverty reduction (e.g. MDG-based)?

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UNDP-GEF's current adaptation portfolio comprises 21 projects in 45 countries.

- Water
- Agriculture
- Disaster Risk Reduction
- Health
- Coastal Zone Management
- Natural Resource Management
- Community-Based Adaptation
- Multiple Thematic Areas

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UNDP context for monitoring adaptation

More than 20 UNDP 'adaptation initiatives' have developed structured monitoring frameworks for tracking adaptation

UNDP Portfolio focuses on the following outcomes:

1. Institutional capacity development for managing climate change risks;
2. Integration of climate change risks into sensitive policies at national, sectoral, or sub-national scales;
3. Piloting adaptation practices and measures at various scales; and
4. Implementing information management systems for climate change decision support.

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Rationale for the UNDP adaptation monitoring framework

Goal
Securing development benefits that might otherwise be undermined by climate change

Objective
Improving adaptive capacity and/or reducing vulnerability of human populations and natural and economic systems on which they depend

Focus
Cross-sectoral and cross-scale **processes** and **outcomes** that enable the achievement of development objectives under climate change

How
Problem analysis is key. Risk and vulnerability assessment identify factors (i.e. "control variables"):

- Determinants socioeconomic vulnerability
- Determinants of adaptive capacity

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Challenges for monitoring adaptation

Measuring adaptation

- What are the proxies for adaptive capacity and reduced vulnerability?
- What are the relevant parameters/indicators within the context of adaptive capacity and development state etc?
- How can results be aggregated from "project"- to "portfolio"-levels?
- How to predict in the context of future changes?

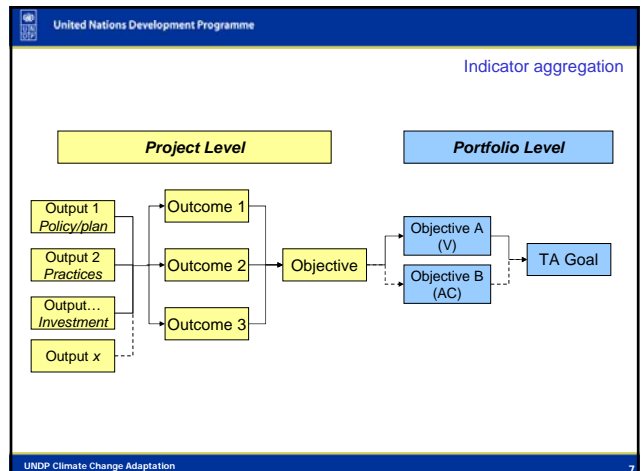
Managing the complexities

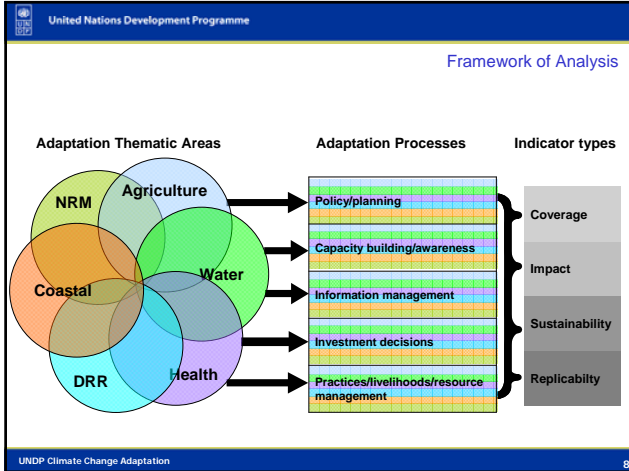
Attribution
Climate change risks compound effects of natural climate variability ("weather") and other non-climate related determinants of vulnerability. Micro- and macro data necessary.

Relevance
Achieving development objectives over longer periods of time than project lifetimes. How robust are inferences in a future changed climate?

Calibration
Climate-related hazards that affect development outcomes are changing – a moving baseline. How do we evaluate successful adaptation in a dynamic temporal and spatial context?

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Portfolio scale goals and objectives

TA1. Food Security/Agriculture	
GOAL	Food insecurity resulting from climate change minimized or reversed, and new opportunities for food production resulting from changes in climate exploited
cf. MDG Goal 1	Eradicate extreme poverty and hunger
Objective	Reduced vulnerability of communities and food-production systems threatened by changes in mean climatic conditions and climatic variability; <i>and/or</i> enhanced capacity of individuals, communities and institutions to plan for and respond to the impacts of climate change on food security
TA2. Water Resources & Quality	
GOAL	Water stress and scarcity of clean water resulting from climate change reduced/minimized
cf. MDG Goal 7, Target 10	Halve, by 2015, the proportion of people without sustainable access to safe drinking water
Objective	Reduced vulnerability to water stress and/or scarcity of clean water; and/or enhanced capacity of water sector institutions and communities to respond to the impacts of long-term climate variability and change on water.

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Project-scale application of indicators to outcomes

TA 1. Agriculture/Food Security		
Project Objective: Vulnerability of farmers and pastoralists to increased drought and rainfall variability reduced.		
Outcomes	Indicators	Indicator Type
1. Rainfall capture and storage systems introduced or improved where rainfall is declining or becoming more variable.	1.1 Number of farms and pastoralist households participating in rainfall capture and storage schemes.	Coverage
	1.2 Water used for food production collected using capture and storage systems among farmers/pastoralists, measured as % change from baseline and % of total annual water requirements.	Impact
	1.3 Perceived impact of project-driven use of rainfall capture and storage on food security (QBS of affected stakeholders)	Impact

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Indicators

Indicators will measure the success of a portfolio / project in achieving:

- **Coverage:** the extent to which projects engage with stakeholders
- **Impact:** the extent to which projects deliver the intended results, or bring about changes in behaviour that support the portfolio's objectives.
- **Sustainability:** the ability of stakeholders to continue to adapt beyond project lifetimes.
- **Replicability:** the extent to which experiences, results and lessons are captured and disseminated for broader benefits.

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Socio-economic data for local-level vulnerability assessments

Local-level M&E forms the foundation of portfolio-level M&E

Key considerations

- **Grounding M&E in the local context:** avoiding overly rigid frameworks, recognizing heterogeneity and maintaining local relevance
- **Capturing "global" lessons from local projects:** framing M&E to extract "globally" relevant information from highly contextualized processes

Requirements

- **Baseline data on the community**
 - Quantitative: changes in yields/incomes/human development criteria AND relevant control variables, time-series data (for examining dynamic change)
 - Qualitative: community dynamics, coping strategies, gender considerations
- **Balanced focus on global aggregation and local relevance**
 - M&E supported by experts with "one foot in each camp"

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Assessing adaptation progress at the local level

Qualitative Approaches: The Vulnerability Reduction Assessment

How do we know that heterogeneous communities have increased their adaptive capacity or reduced their vulnerability to climate change impacts?

How do we know that we have raised local awareness of future climate change risks?

How do we know that adaptation projects meet community needs?

How do we use M&E as a tool to inform ongoing project implementation to reflect changing community priorities?

How can we measure this to communicate our progress to external stakeholders?

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The Vulnerability Reduction Assessment

The VRA is a **question-based** approach with the following aims:

- To make M&E responsive to community priorities
- To use M&E to make projects more accountable to local priorities
- To make M&E capture community ideas and local knowledge
- To gather community-level feedback to guide ongoing project management
- To generate qualitative information
 - To capture lessons on specific issues within community-based adaptation
 - To generate **case studies** highlighting adaptation projects

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The VRA in theory

Adaptation Policy Framework (APF) Steps	VRA Question	Questions focus on...
Assessing Current Vulnerability	1. Vulnerability to existing climate hazards	1. Severity of threat
	2. Effectiveness of existing risk reduction strategies	2. Opportunities/barriers for coping?
Assessing future climate risks	3. Vulnerability to projected climate change risks	3. Opportunities/barriers for long-term change in behaviour
	4. Effectiveness of risk reduction strategies in a climate change future	4. Perception of effectiveness
Formulating an Adaptation Strategy	5. Opportunities/barriers to adaptation	5. Local, sub-national, national, regional opportunities/requirements for adaptation
Continuing the Adaptation Process	6. Sustainability of the project intervention	6. Short- and long-term benefits
	7. Sustainability of the community-based adaptation in general, beyond the scope of the project intervention	7. Opportunities/constraints for sustainable adaptation

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Potential indicators

I. Coverage

- i. Number of policies, plans or programmes introduced or adjusted to incorporate climate change risks.
- ii. Number of stakeholders (e.g. communities, households, agencies, decisionmakers) engaged in capacity building activities for vulnerability reduction or improved adaptive capacity.
- iii. Number of stakeholders served by new or expanded climate information management systems (e.g. early warning systems, forecasting, etc.).
- iv. Number of investment decisions revised or made to incorporate climate change risks.
- v. Number of risk-reducing practices/measures implemented to support adaptation of livelihoods and/or resource management.

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Potential indicators

II. Impact

- i. Percent change in stakeholders' behaviour utilizing adjusted processes, practices or methods for managing climate change risks.
- ii. Percent change in stakeholders' capacities to manage specific climate change risks (e.g. communicate climate change risks, disseminate information, or make decisions based on high quality information).
- iii. Percent change in use of/performance of information management systems (e.g. early warning response times).
- iv. Percent change in stakeholder perceptions of vulnerability (or adaptive capacity) to a recurrence of primary climate change-related stress(es).
- v. Narrative description of the role of project interventions in reducing vulnerability (or improving capacity to adapt to climate change-related threat(s)).
- vi. Marginal improvement in the relevant quantitative development outcome (income, food security, water resources, health outcomes, etc.) controlling for .

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Potential indicators

III. Sustainability

- i. Number of stakeholders involved in capacity building for implementing specific adaptation measures, policy/planning processes or decision-support tools.
- ii. Availability of skills and resources necessary to continue adaptation after conclusion of project (at relevant scale), assessed via QBS.
- iii. Stakeholder perceptions of adaptation sustainability, assessed via QBS.

IV. Replicability

- i. Number of 'lessons learned' codified.
- ii. Number of relevant networks or communities with which lessons learned are disseminated.

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Further information on the VRA

The VRA is being used in support of several UNDP initiatives, particularly the [Community-Based Adaptation](#) project.

Further information is available at the project's website:

www.undp-adaptation.org/project/cba

The website will be updated continuously with lessons on the methodology – and lessons drawn from the methodology as these are developed

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Next steps

Gathering baselines, tracking results

Reviewing:

- Feasibility including
 - Stakeholder support
 - Methodology for analysis
 - Results
- New approaches to monitoring adaptation

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Current and Emerging UNDP Initiatives

Two UNDP flagship initiatives that put socioeconomic information at the center of development

- HDR/HDI, MDG-Support Initiatives

Emerging linkages of climate change with HDR and MDGs:

- **Developing Capacities to Inform National Planning and Budgetary Processes for human development.**

(a) Increased national government capacity to estimate the macro/micro costs and benefits of climate change within/across key economic sectors.

(b) Development of national macro/micro policy options to facilitate climate change adaptation across key economic sectors.


Drawing on ongoing work (e.g. National Communications, etc)

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Thank you

<http://www.undp.org/climatechange/adapt/>



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