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Climate Change Adaptation in Africa

Scoping Paper for the Expert Group Meeting

Table of Contents

1. Executive summary.....	5
2. Introduction.....	6
3. Vulnerability assessment: baseline and future impacts of climate change in Africa.....	8
3.1. Summary from IPCC.....	8
3.2. Adaptation and mitigation.....	8
3.3. Monitoring climate and environmental change.....	9
3.4. Detection of climate change impacts in Africa.....	10
3.5. Synergies with desertification and land degradation.....	10
3.6. Synergies with biodiversity and forests.....	11
3.7. Humanitarian crises, displaced populations and disaster risk reduction.....	12
4. Adaptation capacity.....	15
4.1. Organisational capacity and African institutional development.....	15
4.2. Using climate information.....	16
4.3. Bali Action Plan and adaptation in the post-2012 international regime.....	16
4.4. International finance.....	17
4.5. Cost of climate change adaptation in Africa.....	19
5. Adaptation practice: from pilot actions to operational coverage.....	23
5.1. National policy and programmes.....	23
5.2. Types of adaptation projects.....	23
5.3. Technology and innovation.....	25
5.5. Pilot actions and learning by doing.....	26
6. Conclusions.....	27
7. Annex: Tunis Declaration of the African Union from AU.....	29
8. Annex: List of authors.....	30

1. Executive summary

Adaptation is a process, beginning with understanding current vulnerability, building capacity to support adaptation planning and implementation, learning from pilot actions and deploying strategies and measures to operationalise climate change adaptation in vulnerable regions, sectors and populations. The assessment of current, urgent vulnerabilities has established country-driven priorities that are sufficient to invest in building capacity and pilot actions.

Adaptation efforts, globally and in Africa, are already occurring: it is necessary to move from reactive adaptation to proactive policies, strategies and plans. Actions are required to learn what works under which conditions and/or circumstances; implementation of NAPA projects are essential, as are an increased coverage of types of projects and sectors.

Financial support for climate change adaptation in Africa has been growing, from the initial funds for Least Developed Countries (LDCF) to major investments planned by bilateral donors. Increasing contributions are expected from foundations and the private sector. The estimates of the cost of adaptation in Africa are no more than 'thought experiments', and further studies within Africa are required. However, it appears that the capacity to utilize additional funding on climate adaptation over the next few years is about the same order of magnitude as the funding available. However, to achieve successful 'climate protection' will require effective delivery of increased development funding and full implementation of disaster risk reduction strategies, as well as significant funding for the additional burdens of climate change.

The most urgent needs at present, with immediate benefits, are to rapidly build the adaptive capacity in existing institutions in Africa, to develop a professional body of practitioners, and to implement pilot actions in every country and vulnerable sector. The ability to plan sound projects and to learn from what works is limited by the lack of institutional and professional capacity. Taking advantage of synergies with other resource management and risk reduction efforts (e.g., water, land degradation, biodiversity, coastal zones, health and disasters) is imperative.

2. Introduction

The 12th session of the African Ministerial Conference on the Environment (AMCEN), offers African Ministers a platform to discuss climate change adaptation. Ministers will also review progress made in the implementation of the action plan for the environment initiative of the New Partnership for Africa's Development (NEPAD). Dialogues on financing adaptation and environmental programmes will be one of the key areas of discussion.¹

UNEP tasked the Stockholm Environment Institute (SEI) and a group of experts from Africa (See Annex 2, list of authors) with producing a scoping paper on climate adaptation in Africa for the expert meeting of the 12th Session of AMCEN. Based on key messages from this paper, UNEP has prepared a separate discussion paper to facilitate minister's dialogue. Both papers aim to assist expert's and minister's discussion during AMCEN, and the output of these discussions will help plan adaptation activities in Africa and contribute to the current UNFCCC negotiations for a post 2012 agreement on climate change.

It is important to note that the paper does not focus on specific vulnerabilities, regions or populations-at-risk. The IPCC reports, including the chapter on Africa, provide ample discussion of potential future impacts in Africa, and the documents of National Adaptation Programmes of Action (NAPAs) and National Communications identify priorities for each country, including water, agriculture, health and coastal zones.

The presentation of policy and strategic issues for taking forward climate change adaptation follows a sequence:

- Vulnerability assessment: Awareness, monitoring and communicating present vulnerability (the development baseline) and monitoring trends in climate change and impacts for the future are necessary components of an adaptation strategy.
- Adaptation capacity: The human and institutional resources to monitor vulnerability and plan adaptation strategies and actions underpin implementation; institutional competence must be rapidly increased at all levels from African-wide centres and networks to local communities.
- Pilot actions are required to learn what works; implementation of NAPA projects is essential, as are an increased coverage of types of projects and sectors.
- Implementing operational climate adaptation in vulnerable sectors, regions and socio-economic groups is the ultimate goal; this should proceed from the competence of organisations to deliver effective responses and learning what works.

The conclusion summarises a recent review of climate change impacts and adaptation in a regional workshop in Africa organised by the IPCC. It indicates the urgent actions required in the next few years.

¹ http://www.unep.org/roa/amcen/About_AMCEN/default.asp

	Vulnerability assessment	Capacity	Piloting adaptation	Operational
Types of adaptation:	● Priority regions, sectors and socio-economic groups ● Multiple stresses ● Synergies	● Policy framework ● Organizational competence ● Staff and skill base ● Information	● Sectoral examples ● Agro-ecological zones ● Climatic hazards ● Monitoring and learning	● National to local coverage ● Technical support ● Priority sectors and regions covered
Awareness, information, early warning, communication	Build on NAPAs, existing platforms; link to multiple stresses, e.g., degradation and desertification, air pollution, water, health	Scale up existing organizations, networks; Centres of excellence	End-to-end coverage for priority hazards, regions, sectors; evaluate effect on poverty alleviation and development goals; assess costs of adaptation	Monitoring, learning from actions
Sustainable livelihoods	Social vulnerability assessment and analysis of special groups (e.g., women, marginalised societies)	Strengthen development planning and capacity	Test community based adaptation in cross section of agro-ecological zones and livelihood groups	Manage risks through portfolios of strategies and actions
Direct sectoral investment	Intervention models and pathways	Link national policy to sectoral organisations, e.g., line ministries, trade bodies	Focus on priority sectors in LDCs and key MDCs; collate lessons learned	Major cost for protection; develop standards of acceptable risk
Disaster risk reduction	Implement Hyogo framework	Prepare for trends and additional climate change risks	Case studies for key hazards (drought, floods, heat waves, coastal storms, ENSO fluctuations)	Ensure disasters do not trap people, economies and regions in poverty; reconstruction to higher standards of climate risk management
Insurance and regulation	Learn from case studies (some 20,000 worldwide); evaluate future climate change risk	Develop public-private partnerships	Explore regulation role in reducing future vulnerability; promote additional pilots for micro-finance (credit, insurance)	Increasingly important part of portfolio
Crisis management, large scale migration	Scoping potential 'hot spots'; understand pathways in multi-stressor context	Establish international capacity with national focal points	Develop potential intervention models and approaches	To be explored; requires major international strategies and Africa-wide initiative
Responses:				
Funding	Strong links to development funding; additional capacity for CCA	Strong links to development funding; additional capacity for CCA	CCA funds primary source; coordination with NGOs and private sector actions	Requires leveraging development and private sector funding, e.g. through new codes of practice for climate proofing
Lead actors	Multi-stakeholder; networks with research centres, local organisations and development community	National policy lead; civil society and NGOs;	Across all scales and sectors	Strong coordination and monitoring to ensure effectiveness; actors at all levels involved

Table 1: Planning investment in climate change adaptation

Red: Urgent now

Amber: Required within 5-10 years

Yellow: Priority for 10-20 years, early preparation essential

3. Vulnerability assessment: baseline and future impacts of climate change in Africa

This section briefly reviews material on vulnerability—as the present exposure to multiple stresses including climatic disasters and the longer term prospects of adverse impacts of climate change. Key messages concern filling gaps in knowledge, monitoring changes and linkages to other environmental stresses.

3.1. Summary from IPCC

The Intergovernmental Panel on Climate Change produced the most authoritative assessment of climate change in Africa in its fourth assessment report (AR4). The key messages confirm earlier findings. Of particular note are recent assessments that place Africa as a priority for adaptation assistance due to the high number of least developed countries, fragile resources, variable climates and relatively weak institutions for managing the multiple stresses related to climate change vulnerability and Africa's large share of the world's drylands. Regional impacts of climate change in Africa are increasingly common, especially in melting glaciers (Kilimanjaro, Kenya, Ruwenzori), decreased river flows, and spread of vector-borne diseases.

IPCC Working Group II	
●	Africa is one of the most vulnerable continents to climate change and climate variability, a situation aggravated by the interaction of 'multiple stresses', occurring at various levels, and low adaptive capacity (high confidence). Africa's major economic sectors are vulnerable to current climate sensitivity, with huge economic impacts, and this vulnerability is exacerbated by existing developmental challenges such as endemic poverty, complex governance and institutional dimensions; limited access to capital, including markets, infrastructure and technology; ecosystem degradation; and complex disasters and conflicts. These in turn have contributed to Africa's weak adaptive capacity, increasing the continent's vulnerability to projected climate change. ²
●	By 2020, between 75 and 250 million of people are projected to be exposed to increased water stress due to climate change. In some countries, yields from rain-fed agriculture could be reduced by up to 50%. Agricultural production, including access to food, in many African countries is projected to be severely compromised. This would further adversely affect food security and exacerbate malnutrition. Towards the end of the 21st century, projected sea level rise will affect low-lying coastal areas with large populations. The cost of adaptation could amount to at least 5 to 10% of Gross Domestic Product (GDP). By 2080, an increase of 5 to 8% of arid and semi-arid land in Africa is projected under a range of climate scenarios. ³

3.2 Adaptation and mitigation

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_16239

