Policy Brief on Mainstreaming Climate Change Adaptation in Nile Basin

Key Messages

This policy brief presents a message of a holistic and comprehensive approach that seeks climate change adaptation in the context of water resources management. The approach is formed of six interrelated blocks need to be implemented collectively:

A. **Ensure political commitment towards climate change adaptation.**

B. **Strengthen the regulatory framework that regulates climate change adaptation.**

C. **Strengthen the institutional capacity related to climate change adaptation.**

D. **Integrate climate change dimensions into development plans and budget.**

E. **Ensure strong cooperation and ongoing coordination amongst state organizations on one hand and within the Nile Basin countries on the other hand, as better implementation needs collective action, where all relevant stakeholders especially the communities are engaged in the national adaptation process, policies and plans.**

F. **Conduct monitoring and evaluation on regular basis to policy implementation.**

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Introduction

African countries are within the most vulnerable countries to climate change and climate variability. The Rive Nile Basin, which is the longest Nile worldwide, running over 6,671 kilometers, is expected to be hardly hit by climatic changes. The Nile is a shared basin between ten riparian countries namely; Burundi, the Democratic Republic of Congo, Eritrea, Ethiopia, Kenya, Rwanda, Tanzania, and Uganda, Egypt and Sudan. South Sudan will soon be the eleventh officially sharing the Nile resources. The Nile has always played an essential role in securing the livelihoods of the populations of its basin, which are currently estimated at 171 million inhabitants (Martens A. 2011).

(Source Goulden, M. Slide 15)

The River Nile contributes to 30-50% to the overall GDP of the Nile basin countries and provides employment 60-90% of the population, except for Egypt which has lower figures. The primary water uses in the basin are water supply (agricultural, industrial and urban) and energy generation (UNEP).

Estimated climate models project temperature increase between 2 and 5c by 2080 in the Nile Basin. Precipitation projection varies widely across the Basin, ranging from a decline of about 38% to an increase of about 42%. A general agreement across models projects the major sub0basins of the Nile will experience decrease in watershed runoff. (Source Nyong, A. p.246)

The impacts of climate change will involve increase in water related diseases, likelihood of droughts episodes and extreme events, and conflicts among Basins countries, as well as decreasing the fish populations (UNEP).

Moreover, climate change impacts will be more severe as a result of the low socioeconomic status of the Nile Basin region, which is considered among the poorest worldwide. Eight out of ten riparian states are classified as least developed counties by the UN and almost 100 million people's live on a daily income less than one dollar (except Egypt and Kenya) (ibid).

In 1998, recognizing that cooperative development held the best prospects of bringing mutual benefits to the region, the Nile riparian countries joined in a dialogue to design a transitional institutional mechanism until a permanent Cooperative Framework is in place (UNEP 2010).

The countries created an inclusive regional partnership, to facilitate the common pursuit of the sustainable development and management of Nile waters. The transitional mechanism, launched in 1999, is comprised of the Nile-COM, a Technical Advisory Committee (Nile-TAC), and a Secretariat (Nile-SEC) based in Kampala, Uganda. The overall process is known as the Nile Basin Initiative (NBI). Negotiations over a cooperative framework agreement (CFA) were

concluded in April 2010. Seven of the nine countries that share the Nile Basin signed the CFA and agreed to form a permanent negotiating body to resolve questions of resource-sharing for the world's longest river. However, there are still disagreements among the states (ibid).

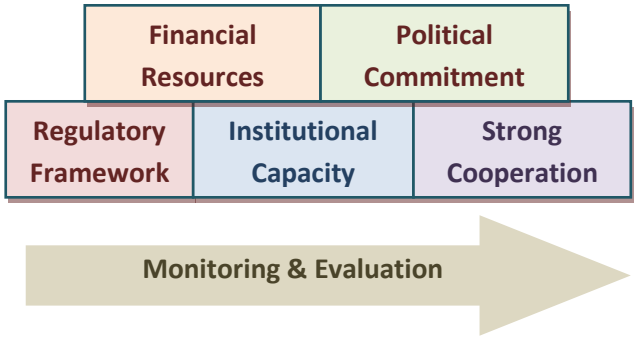
The following table, which emerged from UNEP paper 2010, entitled "Stock Taking of Adaption Activities in the Nile River Basin" provides the key finds related to water policy framework and its link to climate change in the Nile Basin countries:

Burundi	Lacks of comprehensive legislative framework that ensures water governance, as its Constitution adopted in 1992 is silent on water management issues. Development and enforcement of water resources policies and plans are not effective yet. The country has submitted its NAPA in 2007
Congo	Despite Congo has a general legal and policy framework that has implications for water governance such as access to drinking water, it lacks of comprehensive legal and policy framework for water governance due to the war.it has submiited its NAPA in 2006 .
Egypt	Egypt has specific policies and laws that deal with the Nile. The major policy that deals with water resources management is the Water Policy towards Year 2017, which provides an evaluation of existing water resources, future demands by year 2017 and guidelines for water resources management. The Policy mainly focuses on demand management, resource development, and environmental protection. In terms of institutional arrangements, some ministries and organizations share the responsibilities of water management. With regard to climate change, Egypt set up a climate change national institutional structure and formed an inter-ministerial National Climate Change Committee in 1997. It was reformulated again in 2006.
Eritrea	Eretria has policy and legislative framework for water resources management. The Eritrean Constitution (1997) has general provisions that deal with the Environment with implications for water governance. The Policy for water management (2003) provides for integrated management and fair allocation of the available water resource. The Water Law adopted in 2003 sees water is a public property controlled by the government. The Eritrean NAPA of 2007 identified the need for enhancing the institutional capacity and structure efficient for implementing an adaptation strategy . In terms of institutional arrangements, some ministries and organizations share the responsibilities of water management.
Ethiopia	The Water Sector of the country has gone through various reform measures, which include the development and adoption of the Integrated Ethiopian Water Resource Management Policy and the Fifteen Year Water Sector Development Programme, in which various investment programmes and projects are outlined. The overall policy objective is to enhance and promote national efforts towards the efficient, equitable and optimum utilization of the water resources of Ethiopia for significant socio-economic development on a sustainable basis. Ethiopia submitted its NAPA in 2008

Kenya	Kenya currently has no policies or laws that deal with climate change. The only policy that has attempted to address climate change to some extent is the draft National Environmental Policy of 2008. The major law dealing with water management in Kenya is the Water Act 2002, which shaped a new institutional framework for the management and protection of Kenya's water resources at national, catchment and sub-catchment levels. The Ministry of Water and Irrigation is finalizing the Trans-boundary Water Policy, which will help in the management of trans-boundary water resources. In terms of institutional arrangements, some ministries and organizations share the responsibilities of water management.
Rwanda	Rwanda has recently developed a legislative and policy framework which is relevant for water governance. Under the Constitution, every citizen has a right to safe, satisfying, and sustainable environment. Under the law management of the water resources, there must not in any way use methods that could lead to natural disasters such as floods or drought. With regard to climate change adaptation, Rwanda submitted its NAPA in 2007. The Rwandan NAPA recognized the policies dealing with development, poverty and vulnerability such as the PRSP, and the integration of climate aspects into the Economic Development and Poverty Reduction Strategy of 2006. The Rwanda NAPA discusses Integrated Water Resources Management as a priority option to address climate adaptation. It also recognizes that an adaptation strategy needs to be integrated with the Rwanda Vision 2020, the PRS and the National Strategy to Combat Desertification, as it has multi-sectoral cross-cutting aspects.
Sudan	Sudan has a policy & legal framework that is applicable to the management of the water resources of the Nile management. The Water Resources Management Policy (2000) has the overall objective of fulfilling water resources planning and managementGovernment of Sudan submitted its NAPA in July 2007. Sudan has according to the NAPA been actively seeking to mainstream adaptation in sectoral and development policies including in the 25-year National Strategy Outlines. the NAPA recognizes national water-related projects that should result in increased water access and increased capacity to cope with the impacts of climate variations and hazards.
Tanzania	Under Article 27 of the Constitution, the public is called upon to ensure that the natural resources of the country are managed properly. The country has a policy and legal framework for the management of water resources management, which ensure the development of a comprehensive framework for water management framework. In terms of River Nile, the policy has an aspect of trans-boundary waters which covers cooperation in the management of shared water resources. Its Constitution (1997) does not contain a direct provision on environment and water provision. The principal legislation on water management is the Water Utilization (Control and Regulation) Act, Water Act.

Uganda	The main policy dealing with water management is the National Water Policy of 1999 – It promotes an integrated approach to water resources management. The National Environment Management Policy (1994) discusses sustainable management and development of water resources in a coordinated and integrated manner. The Constitution (1995) provided for environmental protection and conservation. It imposed a duty on the government to protect important natural resources including water on behalf of the people of Uganda. The Water Act is the main Act dealing with Water resources management in Uganda. Its main objective is to promote the rational management and use of waters in Uganda. The National (Wetlands, Riverbanks and Lakeshores Management) Regulations (2000) are specific regulations made for the management of Lakes and Rivers. With regard to climate change adaptation, Uganda submitted its NAPA in 2007.

Policy Challeneges in Climate Change Adaptation



According to the table above, it can be concluded that the states of the Nile Basin need immediate actions at the policy level for effective adaptation. The main challenges are linked to the lack of enforcement or even sometimes inexistence of effective policy and regulations that regulate water management. The need to mainstream climate change in water resource management plans and policies is also considered is vital.

Meanwhile, lack of strong collaboration and coordination amongst state organizations on one hand and within the Nile Basin countries on the other hand needs special attention and effort. (Examples, in Egypt, despite the Ministry of Water Resources and Irrigation is responsible for national water resources and authorize the use of water from the Nile, Ministry of Agriculture and Ministry of Health hold special responsibilities in water management. In Kenya, The institutional arrangements charged with the responsibility of water management include the Ministry of Water and irrigation, Water Resources Management Authority, Catchments Area Advisory Committees, and Water Resource Users Associations) (UNEP 2011).

However, there are common challenges facing climate change adaptation in the Nile Basin Countries and African Content. The adaptation technologies are expensive as many studies placed the estimates of the total cost of adaptation in Africa at about USD2 – 10 billion each year besides normal overseas development assistance.(UNDP,2007) Additionally, there is lack of awareness among the local communities on the climate change and adaptation measures

The United Nations Framework Convention on Climate Change (UNFCCC) identifies two major strategies in dealing with climate change: mitigation and adaptation. Mitigation involves the reduction of the accumulation of greenhouse gases in the atmosphere, while adaptation is the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Several types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation (IPCC, 2001, cited in Nyong, A. p. 248).

that they have already been practicing in their vulnerable areas to strive for their livelihood. This has consequently led to their weak participation in their national adaptation planning and implementation initiatives that significantly affect their livelihoods

The analytical framework applied is a holistic and comprehensive approach involves six main interrelated blocks. Each block presents a policy message. It can start from any block depends on the user status.

A. Political Commitment

It is extremely important, as it reflects to what extend the state, civil society and community are mobilized towards climate change adaptation. Strong political commitment will be translated into a regulatory framework and appropriate financial resources allocation.

B. Regulatory Framework

Regulatory framework means the laws and regulations that regulate the relationship between the humans and nature. Strong regulatory framework needs clear institutional structure, roles and responsibilities. However, this needs effective human and efficient financial resources to be allocated for enforcement and setting-up the appropriate structure, which will put the framework in application.

C. Instituional Capacity

It is essential that the Nile countries have the efficient and effective capacity to adapt to climate change. At this stage, it should be highlighted that the capacity building programmes should not merely target the state actors, but also all non-state actors (civil society) and practitioner.

However, this requires the generation and utilization of useable information to design effective decision tools for adaptation.

It is imperative to design holistic capacity building programmes and let them implement what they lea rn; otherwise the training will be forgotten. This requires financial resources for implementing those programmes.

D. Financial Resources

One of the main important blocks within this approach, as it allows the effective policy implementation and allows for importing appropriate technologies. So, the national ministries responsible for national budgeting and planning should pay great attention to climate change impacts, as well as apply insurance schemes in their plans.

It should be highlighted that donor community may also be interested in funding several programmes within climate change, as such community, from bilateral or multilateral organisations, is interested in investing in people. In other words, donor organizations are interested in implementing projects and progarmmes that target eradicating poverty in Africa, tackling climate changes impacts and resolving conflicts among the Nile Basin Countries..

E. Strong Cooperation

At the national level, since there are several entities within each country mandated to look after water resources and climate change, there is an immediate need for strong cooperation and ongoing coordination amongst those entities, to avoid any duplication and thus conflicts.

At the local level, governments alone will not be able to better apply and implement adaptation policies to climate change and in particularly in water resources. Better implementation needs

collective action, where all relevant stakeholders especially the communities are engaged in the national adaptation process, policies and plans. The civil society, in the form of non-government organizations (NGOs), offers a very effective means for engaging all stakeholders in a national adaptation process dialogue that will enhance the existing capacities at different levels. Based on the subsidiary concept, NGOs are closer to the local communities and can use this relationship to communicate the need to give urgent attention to climate change issues at large and various mechanisms for local adaptation measure based on their local, social, physical context. This contributes in raising the awareness of local communities towards the problem, and then will actively contribute in its implantation.

Moreover, NGOs also have access to policy makers, including government, which they can use to help align policies with community priorities. Consequently, this shall strengthen the political commitment.

At the regional level, there should be ongoing exchange of data and information, as well as continuing cooperation and collaborative dialogue towards protecting the Nile Basin from the potential impacts of climate changes. In this respect, it should be highlighted that the Basin countries should use the opportunity of Nile Basin Discourse existence in the region. **F. F.**

The Nile Basin Discourse (NBD) is a regional network of civil society organizations from the 10 countries that form the Nile Basin, established to facilitate and support civil society engagement in Nile basin cooperation and development processes. NBD seeks to ensure that a fully informed and basin-wide civil society plays a key role in projects, programs and policies of the Nile Basin Initiative and other development processes. NBD's five year strategic plan consists of the institutional goal to contribute towards- Livelihood improvement, promote IWRM and adaptation and mitigation of Climate change, and raise Awareness on Nile development processes.

F.Monitoring and Evaluation

It is an important block, as it monitors the implementation and proposes the required adjustments on time. It also, allows identifying the lessons learned for further application and thus scaling up.

Conclusion

The Rive Nile Basin is expected to be hardly hit by climatic changes impacts, which will involve increase in water related diseases, likelihood of droughts episodes and extreme events, and conflicts among basin countries, as well as decreasing the fish populations. However, climate change impacts will be more severe as a result of the low socioeconomic status of the Nile Basin region that is considered among the poorest worldwide.

The main challenges are linked to lack of policy and regulations enforcement that regulate water consumption, lack of effective institutional capacity able to manage water consumption and water resources, as well as lack of strong collaboration and coordination amongst state organizations on one hand and within the 10 countries on the other hand.

This policy brief presents a message of a holistic and comprehensive approach that seeks climate change adaptation in the context of water resources management. The approach is formed of six interrelated blocks need to be implemented collectively.

Meanwhile, the approach can be used as a diagnosis framework, to analyze the situation in either a single country of the basin or in the entire basin. The starting point of this diagnosis framework is based on the user needs and location. However, all blocks work in some way to define the room for manoeuvre. For better use, each block should be carefully analysed

through SWOT analysis, defining the main actors in each element, and thus the strategic path required for effective mainstream of climate change in the Nile Basin shall be clearly defined.

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