



WORKSHOP REPORT

CLIMATE CHANGE AND TRANSBOUNDARY WATER RESOURCES CONFLICTS IN AFRICA: LEGAL, POLICY AND INSTITUTIONAL CHALLENGES

**SUN N' SAND BEACH RESORT, MOMBASA, KENYA, 29-30
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Background

Institute for Security Studies (ISS) organized the above conference from September 29th through 30th, 2009, in Mombasa, Kenya to address the issue of climate change and transboundary water conflicts in Africa. After many years of negotiations and debates over transboundary water conflicts, ISS hosted this regional gathering, in order, to discuss possibilities of strengthening and enhancing an improved understanding of transboundary waters and conflicts. The conference focused on addressing effective policy-making on climate change in Africa, examined trends of environmental degradation and reviewed associated conflicts and cooperation over the use of transboundary water resources. In addition, it aimed to assess the challenges and opportunities for future water related development projects including the energy sector in various African regions.

The conference concentrated on evaluating the basic impediments that hinder sustainable and basin-wide cooperation, examined the role of governments and non-government organizations in the endeavor towards joint management of water shortage in the region and the impact of climate change, cooperation, development, food insecurity, peace and stability in Africa. During the first day, discussions were aimed at laying the groundwork for a future peaceful consensus on cooperation among the riparian. The second day panelists offered an exchange of experiences and "best practices" from the non-governmental sector, academia, African Union (AU) Member States, Regional Economic Communities (RECs) and African diplomats.

The conference brought to Mombasa, over thirty five participants. The distinguished speakers represented the Ministry of Water Resources of Ethiopia, Egypt, Kenya and Uganda. The debates at the conference expressed support and encouragement for building the riparian states' consensus on cooperation. As suggested, the consensus

clearly stated that political commitment of the riparian states to cooperate and to serve as an overarching framework for various policies and instruments of all ten countries.

During the meeting, consensus developed around the need for more dialogue among the Nile riparian states which will lead to a win-win solution. More coordination among various actors involved in transboundary water conflicts – be it at the policy setting level or implementation level would bring more efficiency and better understanding among the riparian states. In addition, given the degree of mistrust characterizing the Nile riparian states, the need for confidence building among the riparian states was also recommended.

Moreover, the conference emphasized that the rapid climate change, degraded ecosystems, scarcities of food, water, and energy will out last the serious economic downturn in Africa. Some crisis can be reversed, but the damage to climate and ecosystems that contain and support all life may be beyond repair and contribute negatively to economic prosperity in Africa.

The intensity and interest in the debates was a sign not only of the importance of cooperation and effective policy-making, but also of the growing strength of the riparian states ability to develop and protect their environment. The following report sets out the key recommendations gathered during the event, the background which galvanized the organization of this event, and the summary of sessions held during the conference. ISS would like to thank all participants in this event for coming to this conference and sharing their thoughts on the important issues of surrounding climate change and transboundary water conflicts in Africa.

Welcoming Remarks

The workshop was officially opened with a note of welcome from Mr. Roba Sharamo, Acting Director/Programme Head of the Institute for Security Studies. Mr. Sharamo outlined the objective of the workshop and drew attention to the challenges and opportunities faced by the Nile Basin riparian states in particular and other transboundary water conflicts within Africa. He also stated that the objective of the roundtable discussion was to constructively contribute to policy options for effective policy-making and cooperation among the Nile Basin riparian states. He concluded that climate change is no longer a myth but a reality and it is now affecting the environment, the community and the state in Africa.

Keynote Address

Honorable Charity Ngilu, M.P Representative of Kenya's Ministry of Water & Irrigation, Kenya, represented by Mr. John Rao Nyaoro, Director of Water Resources, Ministry of Water and Irrigation, Nairobi, Kenya

The workshop was officially opened by Mr. John Rao Nyaoro, representing the Honorable Charity Ngilu. After welcoming all the participants, he thanked the ISS for choosing Kenya to host this important event. He noted that the workshop had come at the

time when many countries in Africa and the world at large are experiencing the devastating effect of climate change. From the onset he informed the participants that climate change is real and its effects on Transboundary waters will be far-reaching especially in Africa since Africa has a number of transboundary waters.

Other than the effects of green house gases, climate change in Kenya has been exacerbated by population increase. He noted that this has led to human encroachment on the fragile water catchment areas while in search of firewood, more arable land for agriculture in order to produce more food and logging of indigenous trees for sale to get more money. He further added that lack of or poor land policies have meant inappropriate land use in the country that has further worsened climate change situation. Additionally, Mr. Nyaoro emphasized that although Kenya's land policy has been reviewed recently as a response to assist in the sustainable land use and protection of water catchment and water sources, more will have to be done to ensure that Kenya's five water towers are conserved and are devoid of activities that are destructive to the catchments.

Finally, Mr. Nyaoro mentioned that the other pressure on water resources is water pollution that is a big challenge to water resources management initiatives. Discharge of raw or partially treated effluents into water bodies is a threat to freshwater resources. Rivers traversing urban areas especially informal settlements where raw sewers are being discharged directly into the waters bodies have rendered such waters unusable. Industrial effluents especially tannery, paper and coffee pulping are the main sources of water pollution in most developing countries.

In his conclusion, he stated that due to scarcity of freshwater resources there is already water conflict among different water users. There is therefore a need for cooperation to ensure peaceful and sustainable development of transboundary waters. In addition, in its effort to foster cooperation with its neighbors, Kenya has developed a transboundary water policy to assist in the appropriate management of its shared waters.

Session I: Current Conflict and Cooperation on Transboundary Water Resources: The Case of the Nile River Basin

2. Review of Early Experiences, Current Challenges and Opportunities among the Nile Basin Riparian States

Dr. Debay Tadesse, Senior Researcher, Institute for Security Studies, Addis Ababa, Ethiopia

To date there is no comprehensive agreement on the use of the Nile River among the 10 riparian states; the few agreements that exist so far are entered between the two downstream riparian states Sudan and Egypt, in 1929 and 1959 to the total exclusion of other riparian states. This peculiar feature of the Nile has become an obstacle to effective cooperation such as development of joint projects and investments. However, it is not so much the amount of the Nile water available in the region that makes it scarce and a

source of conflict, but rather it is the uneven distribution and utilization among the riparian countries.

Cooperation has been deadlock in this region but an agreement has to be reached specially on the allocation of water resources to meet basic human needs to address the issue of food security, energy, and economic development. Climate change is affecting food security in the region, unpredictable rainfall, drought and failure of crops aggravate the situation to the fullest. There is a close relationship between water and food security and the reliable access to water increase agriculture yields. Lack of water management can be a major cause of droughts, famine and undernourishment. The availability of irrigation water enables more crops to be grown per year and increase in year-round farming and employment opportunities.

Recommendations:

- Open discussions in order to reach a comprehensive win-win agreement to prevent potential inter-state conflict;
- Fundamental revision of the statuesque and need strong riparian states' cooperation and coordination on Transboundary activities;
- Efficient management and strategic plan on efficient utilization of the Nile water to overcome the problem of recurrent drought and famine;
- Human resources capacity building and empowering the rural poor to get access to water and energy services; and
- Working toward environment sensitive policies at regional level to protect the region's environment and natural resources

3. Sustainable Transboundary Basin Development as a Strategy for Climate Change-induced Conflict Prevention: Reflections from Eastern Nile

Dr. Ahmed Khalid Eldaw, Executive Director, Eastern Nile Subsidiary Action Program (ENTRO) and ***Dr. Wubalem Fekade***, Social Development Officer (ENTRO) paper presented by ***Dr. Salah Shazali***, Senior Operations Officer, Nile Basin Initiative

Nile Basin Initiative (NBI) was originated as a scientific cooperation induced by the crises of the flood of 1963 and 1964 and later developed to other form of cooperation. Its overriding principle is enough water to everyone; benefit-sharing, win-win projects and no significant harm to all. The objective are inter-related and focused on addressing poverty in order to achieve regional cooperation and integration. It also promotes economic growth, reversal of environmental degradation which overall works toward enhancing peace and security of the region.

Climate change is no longer a disputed phenomenon. There is overwhelming scientific evidence and consensus that climate change is an ongoing, observable process (for example warming of the earth's atmosphere due to mainly accumulation of Green House Gases). Climate Change, unless addressed proactively, is likely to induce, at various spatial levels, a cascade of natural (e.g. soil degradation, erosion and irreversible desertification; increased temperatures and attendant sea level rises, spatial and temporal variation of precipitation - both inter- and intra- seasonal- and, changes in biodiversity,

etc.) and socio-political (e.g., changes in patterns, extent and direction of migration; changes in demographic sizes and composition; changes in human settlement patterns; competition over scarce resources; escalation of social, ethnic and identity based tensions) stresses and constellation of *related conflicts*.

Given the fact that the Nile is a source of sustenance for the ten countries, adaptation to and mitigation of the impact of climate change cannot be effective if done unilaterally, by any one country. The assumption is that Climate Change, by virtue of its being an equal opportunity threat for all, is expected to inspire and draw all Nile riparian countries to cooperate. Among a number of regional organizations, NBI, drawing from its transboundary mandate, is better positioned to play critical role in promoting regional, i.e. cooperative, inter-riparian adaptation and mitigation policies, programs and strategies.

Recommendations:

- Member states to work together in order to address climate change issues as it requires regional and transboundary approaches; and
- NBI need to coordinate with other Regional basin organizations and AU to address the issue of climate change at the continental level.

4. Assessing Regulation of International Water Utilization in Africa

Dr. Tom O. Okurut, Executive Secretary, Lake Victoria Basin Commission

Trans-boundary water systems in the African continent are resources shared by two or more countries some of which form political boundaries among States. These water resources provide economic backbone to some of the riparian states and their inhabitants. However, the full potential of these shared water systems is yet to be realized and indeed they are also a source of conflicts that are experienced in Africa from time to time. In addition, many populations in the African countries are faced with problems of uneven distribution and utilization of water. The countries likewise face the challenge of allocating appropriate budgets for accessing water where it is given that technological options to do that are in place. Over the last two decades, various African Governments have made considerable effort towards institutionalizing International Water Agreements mainly: *The Helsinki Rule on the Uses of the Waters of International Rivers* (International Law Association, 1967) and *The Convention on the Law of Non-Navigational Uses of International Watercourses* (UN, 1997).

In addition, other broader Water Governance Principles looking beyond the water course to the land have informed the processes in the establishment of both national and trans-boundary water governance arrangements in Africa. The launch of the African Ministerial Conference on Water (AMCOW) in 2002 galvanized countries to strengthen and/or establish trans-boundary water resources structures Africa. AMCOW informed the various processes in the countries and especially in the establishment of dedicated River and Lake Basin Organizations (RLBOs) to manage trans-boundary water resources. Although African countries have taken great strides in application of international regulations and principles, there are still challenges of which bureaucratic inertia and fear of change are principle drivers. However, commitment and mutual trust by the riparian

countries is a key to the successful regulation of the trans-boundary water resources including investing in water provision where there are inequalities of availability of water. Better resources and efforts need to be devoted to the process of promoting cooperation.

Recommendations:

- Riparian states need to integrate to international agreement and real commitment, respect and trust of one another.

5. Kenya's Experience in Managing Climate Change and Water Resources

Conflicts: the Case of Gibe I, II, III

Mr. Silas Mutia, Ministry of Water and Irrigation, Nairobi, Kenya

Climate change is a direct consequence of global warming resulting from depletion of ozone layer by green house gases. Green house gases effects on ozone are worsened by degradation of forests cover that act as carbon sinks for these gases. The negative impacts of climate change are being manifested in various ways such as:

- Prolonged droughts in Kenya,
- Erratic fires in California,
- Devastating floods in Bangladesh, West Africa and Philippines, and
- Melting ice in Iceland among others.

Scientific evidence shows that its dangerous and destabilizing consequences will increase with greater force, frequency and unpredictability. For instance in Kenya today there are many water related conflicts amongst the communities and loss of wildlife is on the increase due to lack of pasture resulting from the prevailing drought.

Regrettably, until recently, Kenya's legislations on the environment were limited and vague. Kenya's constitution that dates back to the colonial period was geared towards resource exploitation. The administrative arm of the government was suited more to keeping law and order, therefore environmental protection was not a priority.

Overview of the Gibe I, II, and III project in Ethiopia

Gibe I and II are two hydropower projects on the tributary of River Omo (Gil Gibe River) upstream. Gibe I is designed to generate 184MW on a small dam with a capacity of 839 million m³. During a recent visit by a Kenyan delegation, it was found that Gibe I Dam had only a live storage of 1.5 meters high that could only drive one turbine at half capacity. The dam itself had no enough impounded water. Gibe II which is basically designed to use water from Gibe I through a 26-kilometer long tunnel is under construction and is aimed at generating 420MW. Gibe III which is at the confluence of Gil Gibe River and River Omo is under construction (32% of the construction has been undertaken). It is the largest hydropower projects ever undertaken in Ethiopia.

Due to the dynamics of the economic activities of any country, chances are that the water use of the Gibe dams is likely to change from hydropower to other uses and this would affect Lake Turkana and its biodiversity.

Recommendations:

- To avert this, establishment of a joint management cooperative framework between Ethiopia and Kenya is recommended.

6. The Challenges of Climate Change and Transboundary Resources in Eastern Africa

H.E. Ambassador Idule Amoko, Ugandan Embassy, Addis Ababa, Ethiopia

Climate change is a serious problem we are facing today although Africa has contributed least to global warming, but because of the limited resources and capacity, Africa is likely to suffer the most from the resulting consequences, be it the due to scarce water resources, damage to coastal infrastructure and cities, reduced agricultural yields and environmentally-induced migration etc. Can climate change trigger conflict? Would such conflicts necessitate exclusive policy, legal and institutional framework for their resolution?

The major problem related to climate change is the nature and its sophistry it has put the government as well as the public in closed doors and it has been very difficult to address it. It needs a holistic approach and need to be mainstreamed in national, regional and global affairs. Environmental policies need to be mainstreamed in all sectors of Government's socio-economic activities, particularly those related to trans-border resources.

Africa has been witnessing different transboundary resource conflicts because of the fragile as well as arbitrary colonial borders. It is a very sensitive matter and this paper suggests that political solution to these problems includes: keeping away politicians who would always wish to capitalize on such events for their own selfish ends. Every problem in Africa is a priority which defies choices. To handle them, Africa is in need of flexible and mature statesmanship imbued with prudence and sobriety.

Recommendations:

- Political solution, bilateral agreement and establishing of joint permanent commissions or creating a forum and negotiating the subject at the senior official levels; and
- The AU's initiative for the effective and final demarcation of African borders which should sound a death knell to this recurrent odyssey is another instrument to handle this case.

7. Water and Food Security in the Nile River Basin: Legislative and Institutional Arrangements for Cooperation

Dr. Kithure Kindiki, Associate Dean School of Law, University of Nairobi

Water conflicts are likely to occur at sub-national level within a country but not at international level because at international level there are other common interests like trade interest, socio-cultural interest which will prevent conflict even where there is competition of scarce resource. However, the water and food security in the Nile Basin riparian states nurture political tension and call for common management resources.

The downstream craves the old treaties to be binding and the upstream craves review of old and exclusive riparian rights of the downstream based on equitable utilization principles. Neither the unilateral downstream state's posture bent on maintaining the statuesque nor the up stream's attempts to abstract the water would bring solution the agreements--which lies somewhere in between. What needs to be done is to push the debate of the equitable utilization of common management of the Nile waters among the riparian states. The one absolute need is to adopt the treaty, the Nile basin framework agreement and need to promote the riparian states' ratification of the UN convention on International water courses. To date the UN convention is not ratified by any of the Nile River riparian members states. Different states have different view about that treaty. It holds best future of the riparian states even in global perspective.

Recommendations:

There should be a three-pronged strategy for promoting ratification of the UN Convention in Eastern Africa. First, there should be efforts to promote the Convention through the basin-wide institutional arrangement- the Entebbe based Nile Basin Initiative (NBI). Two, the ratification of the Convention can be promoted through three out of the four sub-basin frameworks – the Arusha- based East African Community where various cooperative initiatives on Lake Victoria are based.; the International Commission on the Congo-Oubangui-Sangha Basin (CICOS) and the Central African Forests Commission (COMIFAC). Third, the last strategy to promote ratification of the Convention should target individual countries.

8. Conflict and Cooperation on the use of the Indian Ocean and the Impact of Climate change in terms of sea level rising and its effect on the coastal residence

Ashitiva Dan, National Environment Management Authority, Kenya

Indian Ocean is the third largest Ocean in the world. The climate is controlled by monsoon wind. Kenya is one of the countries from Africa which is a party to the agreement on the Indian Ocean, the East Africa marine program 2001. These agreements seek to improve the coastal and marine management in general. Indian Ocean Fisher Protection Program and the riparian state are showing cooperation in this regard and also are responsible in utilization of the Ocean like in India etc. For example, bilateral and trilateral agreements have been signed between countries South Africa, Swaziland and Mozambique.

Due to the impact of climate change, the sea level is rising. Climate change is directly or indirectly related to the activities of human activity and the consequences and the focus of this presentation is to increase evaluate sea level rising that includes the increasing of water temperature and ice melting.

Climate change impact is mostly shown at the coastal zone through: loss of land, degradation of the habitat, conversion of dry land to wetlands, increase in vulnerability of coastal storms, and shore line erosion. The impacts in East Africa for example are erosions and flooding in Dar-es Salaam in Tanzania and Malindi in Kenya's coast.

Recommendation:

- There is a need to increase awareness of the people to know the impact of sea level rising and climate change;
- Implement response strategies include shore protection, erection of different types of sea walls, flood hazard regulation; and
- A call for cooperation rather than conflict.

Session II:

The Role and the Experiences of African Governments and Intergovernmental Agencies in Addressing Climate Change and Managing Transboundary Water Conflicts

9. Cooperation and Challenges on the Nile River: An Ethiopian Perspective, Mr. Menelik Alemu, Acting Director General, International Law & Consular Affairs General Directorate, Ministry of Foreign Affairs, Ethiopia presented by Mr. Henok Tefera, Advisor in the Minister's Cabinet, Ministry of Foreign Affairs, Ethiopia

Water scarcity and environmental degradation obviously do not automatically lead to violent conflict. On the contrary, the use of transboundary water courses offers strong incentives for cooperation between riparian. Water disputes lead to cooperation rather than armed conflict. Particularly today, as more emphasis is given to joint responsibility for sustainable management of the shared resources, it is quite likely that advance planning and more sophisticated technology may ease the tension in the Nile Basin and even avert conflict.

Nile Basin initiative is the first and only inclusive framework of cooperation on Nile and Nine countries are able to formulate joint transboundary programs, policies and projects. The Nile Agreement would be the standard bearer for other basins throughout the world. Achievements are significant, however we are currently at a critical stage and all these gains could be lost. Current differences over the Cooperative Framework Agreement are probably the most intractable obstacle for sustained cooperation in the Nile River Basin. Still differences exist among several riparian states as the downstream states' position has hardened calling for what is termed 'Historical Rights' to be imbedded in the Agreement itself while among other things the Upper riparian states take this as tantamount to an insult. The upper riparian countries are the poorest and face different problems from lack of utilization of this rich water. Thus this divisive Agreement is not binding on all riparian countries.

Recommendations:

- Government to formulate policies related to transboundary resources;

- Need to an alternative models of cooperative management for adaptation to the future Nile River Basin Commission can only be sustainable if they meet the requirements of
 - equity to all riparian countries
 - address joint protection of the environment in an integrated manner to assist in the sustainability of the Basin

10. Role of Governments in Preventing Climate Change Induced Water Resource Conflict: an Ethiopian Perspective

Mr. Fekahmed Negash, Heads of Basin Development Studies and Water Utilization Control Department, Ministry of Water Resources, Ethiopia

Climate change is a reality showing a heavy impact on water resources. Water resources management is becoming a challenge through climate change, especially in Ethiopia where this effect has reflected on the GDP. The indicators vary from the increase in temperature and rainfall distribution, the drying up of rivers that lead to the decrease in resources which at last enhanced poverty, competition over scarce resources, migration and the inevitable conflicts.

Africa is hardest hit by climate change because of the high dependence on Climate sensitive economic activities like agriculture, fisheries and so on. The Nile is one of the transboundary basins impacted by climate change; six of the ten riparian countries are the poorest in the world. The development and utilization of the Nile water is highly asymmetrical.

Cooperation over the Nile is a necessity and not a choice and the Ethiopia's Transboundary Strategy clearly indicated the need for cooperation over transboundary waters resources and this is clearly stated in Ethiopia's Water Resource Management Policy, Strategies and Laws. The measures taken so far can justify this action is the establishment of the Boundary and Transboundary Rivers Affairs Department in the Ministry of Water Resources and the countries to pursue positive measures in joining different initiative that works towards cooperation agreement of riparian states.

Recommendations:

- National strategies on transboundary cooperation to be more sensitive to the effect and consequence of climate change;
- Empowerment and involvement of Stakeholders including local community, civil society etc;
- Climate change and transboundary issues should be a public issue
- Open, transparent, and accountable policy and decision making process;
- Public awareness and planning for climate change and utilization of transboundary waters (shared resources) responsibly; and
- Support capacity building initiatives in research, information dissemination, infrastructure, adaptation options, forecasting and early warning and preparedness.

11. The Role and Experiences of Egypt in Managing Transboundary Water Conflicts

H.E Ambassador Marawan Badr, Office of the Minister of International Co-operation, Egypt

Zero sum game is when one country uses more water than it actually needs resulting in downstream users being harmed. How can we achieve win-win solution? For Egypt, Nile is not a national security issue, it is a survival issue as the country depends on the Nile for 97% of its water needs. What is expected from the Nile is not at the expense of other riparian states. Egypt has never requested for exclusive use of the Nile and has also subscribed to the equitable and reasonable use principle. Its Nile developments such as Aswan have actually saved water rather than waste/adversely affect it. The UN framework is not binding though it took 25 years to reach it. Egypt is seeking a binding agreement within NBI framework. We cannot deny the work of NBI. There is positive development in NBI which will bring about a 150% shift of relationship between upstream and downstream countries.

Recommendations:

- There is a lot of misinformation, which leads to a lot of distrust among the parties; and
- The agreement that exists is very old and there is a need to review the agreement from 1920s.

12. Transboundary Water Conflicts: The Experience of Egypt in Actualizing Water and Environmental Ethics

H.E Ambassador Dr. Magdy A. Hefny, Director of the Regional Center for Research and Studies of Water Ethics, Ministry of Water Resources & Irrigation, Egypt

The first thing to do is a need to examine water and environmental ethics in their relation to conflict resolution and management of the NB countries. This is because of the threat related to climate change and environmental hazards that also threatened the food security situation in the region. This calls for robust transboundary water management. We have seen tragic examples in our times like Darfur.

How do we define ethics and its relations with philosophy morality and law? In summary, the term Environmental ethics is an intrinsic values of natural systems while, Social Ethics is all about social justice, basic needs of life. Water Ethics is the right to access to drinking water, freshwater and also look into conservation and uses of water management, Eco-Ethics: The land ethics; soils, plants, Conservation Ethics: Sustainability; consensual philosophy.

NBI is vulnerable to rising model of uncertainty. It is complex in terms of the hydro physical of the river, the socio-political as well as the economic situation of the riparian countries. What is important enough is the soft path and cultural approach in dealing with the complexity problems of the Nile Basin. There is a need to create strategy for the Nile Basin that includes an ethical Framework and water Ethics.

Recommendations:

- Virtual water trade among the Nile Basin countries;
- Water must be dealt with by all the stakeholders (local authorities, companies, NGOs, researchers etc);
- Sustainability-- one unified agenda instead of separate economic, ecological, and social agendas; and
- A need for a new paradigm

13. African governments, the AU and RECs response to Climate Change in Africa
Ms. Jo-Ansie van Wyk, Department of Political Science, University of South Africa (UNISA)

According to human development report of 2007 the effects of climate change has decreased agricultural production and increased food insecurity, has increased water stress and water insecurity. There rising sea levels and greater exposure to climate disasters the transformed ecosystems and threatened biodiversity and also all this effect on health.

Transboundary hydro-political cooperation will bring more stability and peace, economic integration that could benefit the riparian states and the continent in general. Action has been taken by the governments, RECS as well as AU in terms of putting legal instruments and policies in place to materialize the cooperation on transboundary water resources. But some of these policies and legal instruments take a lot of years to draft like the UN Convention on the Non-navigational Uses of International Watercourses. There is a need for more transboundary treaties.

Recommendations:

- Align common climate change position and position on transboundary waters
- Strengthen basin institutions and RECs
- Align national policies
- Incentives to comply with International Water Law

To African Union member states:

- Develop new and support existing research capacity
- Conduct research on the socio-political impact of climate change
- Formalise, adopt and implement national climate change policies
- Share climate change adaptation and mitigation technology
- Improve the role of the private sector through public-private partnerships (PPPs)
- Improve capacities to respond to climate change such as the enhancement of coastal defences (in the case of coastal states)

To AU:

- Normative commitment and development of a comprehensive response to climate change
- Improve AU environmental governance structures
- Adopting a general framework and plan of action on climate change, including standards

- Establish a climate change directorate
- Amend the African Peer Review Mechanism (APRM) to include states' response to climate change
- Institute environmental peace-building
- Foster international collaboration
- Improve climate change diplomatic practice
- Improve early warning mapping
- Cooperate with regional organisations
- Improve public awareness and civil society involvement via the ECOSOCC

14. The Role of Donor Communities to Address Impacts of Climate Change in Africa

Dr. Asferachew Abate, Senior Environment Advisor, CIDA-ECCO

In financing climate change: the role of donors and their spending comes from the National governments, national private spending, FDI as well as International loans. Most of the money comes from World Bank, Canadian International Development Agency (CIDA) and Global Environmental Facility (GEF). Major activities financed so far includes facilitating transition towards low carbon societies, build resilience to improve adaptation and another one to improving understanding of climate change science but this is not enough for example: US\$ 520 million was pledged and out of which US\$ 200 million was available. There is a need for more financial and investment flows between now and 2030 to return greenhouse gas emissions to current levels (UNFCCC Secretariat).

Climate change affects development and its impact threatens up to 40 per cent of Official Development Assistance (ODA) which is sensitive to climate risks as well as might constraints the Millennium Development Goals (MDGs) that can be affected directly by climate impacts. These include addressing hunger caused by droughts and floods; providing access to water and sanitation; and preventing and treating malaria.

Recommendations:

There is a need for rehabilitation and adaptation of the following issues:

- degraded areas with afforestation;
- Support sustainable management of existing forests;
- Encourage development environment friendly technologies;
- Support the development of renewable energy resources;
- Integrate climate change adaptation into donors programs and projects;
- Support for networking and joint forum;
- Support for generation of accurate and specific information on climate change;
- Integrate climate change into national planning; and
- Improve early warning system.

Session III - Day 2:

Climate Change and Transboundary Water Conflict in Africa: Legal, Policy and Institutional Challenges

15. The Role and Experiences of IGAD in Managing Climate Change and Transboundary Water Conflicts in IGAD Region

Mr. Kizito Sabala, Political Officer, IGAD-Liaison Officer, Nairobi, Kenya

One of the distinguishing features of the IGAD region is its endowment with transboundary water resources which is shared between two or more riparian states. The water resources have been there for ages while political boundaries were drawn and redrawn. In some cases, the water sources actually serve as borders but the extent to which states share these resources remain a source of concern and in some cases it has sucked in political leadership at the highest level. For instance, the disputes over the Migingo Island on Lake Victoria has invited comments from both the Ugandan (Yoweri Museveni) and Kenyan (Mwai Kibaki) Presidents.

There is no country in the IGAD region which does not share water resources with one or several of its neighbors. At least 60% of IGAD region's total surface area is occupied by international basins making judicious consideration in the management and equitable development of shared resources very important particularly between upper and downstream countries.

IGAD remains a key institution in the region on issues of climate change and transboundary water resources. The establishment of Climate Prediction and Application Center (ICPAC) as a specialized institution on matters of climate change is a testimony to this fact. In addition the IGAD draft Peace and Security Strategy (2009) fully acknowledges the current conflicts and potential ones on transboundary water resources in the region.

Recommendation:

The problems of mitigating transboundary conflicts over unregulated usage of shared water resources are critical in the IGAD region since presently there are no laws regulating these resources neither customary regimes.

16. The Role of ECOWAS in Managing Climate Change and Transboundary Water Conflict

Ms. Hajiya Raheemat Momodu, ECOWAS Liaison Officer to African Union

West Africa remains one of the regions forecasted to be the most affected by climate change. The impacts of climate variability have demonstrated the region's vulnerability. However, recent food crises and widespread flooding, shows high vulnerability to climate change and climate variability. Climate change and variability is likely to increase and intensify. Huge prospective impacts on society and economies, potentially affecting all sectors and all groups of people (especially poor and marginalized groups). To address

such prospects; countries across west Africa have identified medium- and long-term adaptation measures in their National Communications (NC) to the United Nations Framework Convention on climate change (UNFCCC).

Fifteen (15) ECOWAS member states in the mid 1990s ratified the United Nations Framework Convention for Climate Change (Liberia ratified in 2002). Many adopted several initiatives ranging from institutional changes to the promulgation of new policies and laws, through the establishment of projects and programs.

Recommendations:

- Developing the capacity in technical institutions to support governments and communities in their adaptation to climate change; and
- Capacity building and adaptation projects and programmes, with support from the international community.

17. Rural Development Strategy and the Management of Natural Resources in the CEN-SAD Region: A framework for the integrated water resources management for regional economic integration

Mrs. Wafa Essahli, CEN-SAD – Director in Charge of Rural Development & G. Zongo

CEN-SAD is the biggest REC in Africa and covers four African regions (North, West, Central and East); comprises of 28 member-states covering 13, 9 million km² and with 444, 96 millions inhabitants (as of 2006). Member's state faces the same problem like the rest of Africa in terms of low agricultural investment which is mainly rain-fed and provides 90% food need. There is trade balance deficit and this regional disparity would have been an opportunity but has not been taking into consideration. Different plans have been adopted to overcome these problems but implementation has been limited because of lack of collaboration in sharing information, knowledge and inadequate regional approach.

Given the socioeconomic and physical constraints that are typical of the CEN-SAD area, the development strategy for the agricultural sector and for the management of natural resources must look into water resource management, agriculture sector development, efficient utilization of natural resources and a fight against desertification etc.

The main climate changes effects will be reduction of agriculture production, deterioration of food security, occurrence of natural disasters (flood, drought, diseases, risk of conflict due to the lack of land and water resources and an increase of population facing water stress. That is why, the CEN-SAD strategy plans for three types of action to be implemented in order to mitigate against these challenges:

- Setting up a consultation framework among the different levels of actors;
- Building up scientific knowledge on existing resources water needs and the short medium and long term evolution; and

- Formulating investment programs in the aim of regional integration and complementarities.

Water resources in the CEN-SAD region constitute already a very big challenge hindering the development programs of member countries; climate change will worsen this situation. It is worth noting that reinforce the adaptation capacities at all levels, it is necessary to improve knowledge about these resources, populations needs and their evolution, and cooperation and efficient management strategies of the different stakeholders at the different levels (basin, regional, national, local) and reinforce federating programs.

Recommendations:

- Scientific knowledge;
- Synergy among actors; and
- Federating programs.

Session IV: Climate Change and Natural Resources Conflict in Africa

18. Natural Resources Scarcity and Pastoral Conflict in Africa under Climate Change

Dr. Adano W. Roba, Research Fellow, Marx Plank Institute, Germany and Lecturer, School of Environment Studies, Moi University

What are the correlation between resource scarcity, livestock production, water resource and drought? Frequent droughts cause periodic crash in livestock numbers which are major capital and measure of wealth for pastoralist populations. Violence results from either competition over scarce resources triggered by governance failure or unequal access to resources and social exclusion. Pastoral conflicts in Africa happen because of high population growth and high dependence on rangeland resources (degradation) , and lack enforceable property rights to govern natural resources (policy failure).

When does this conflict get more violent wet or dry season? Drought years should be associated with high numbers of violent conflict. It is difficult to find correlation between rainfall and violence in absolute and in relative terms, no direct relation. But by looking at average number of killings in dry, average or wet years we can drive something and twice as many people are killed in wet years than in the dry (drought) years, in both relative and absolute terms. This finding also shows less violence in and directly after drought years than in wet years, fewer deaths in the year following a drought and pastoral conflicts do not increase during times of scarcity of resources.

There is decrease in violence in drought years because herders cooperate during periods of scarcity to access and share water resources and the payoffs of stolen weak herds is too little and consequences are substantial in terms of non-cooperative outcome in dry/drought years.

Raids and violent conflicts seem not related to scarcity of natural resources and occurrence and incidence of pastoral conflicts has not increased over time as claimed by the ethnic conflict literature. Conflict incidence illuminates more failure of the state to provide physical security to citizenry than it shows culture of periodic and violent conflicts. Thus, a serious redress of the problem requires a clear understanding of the underlying causes of inter-ethnic pastoral conflicts.

19. Natural Resources Conflicts in West Africa: the Case of Niger River Basin
Dr. Lulseged Abebe, Manager, International Alert, West Africa

Water is at the heart of the climate debate. Water is not only a scarce resource but distributed unevenly and currently 430 million people face water scarcity and by 2050, about 7 billion people in 60 countries will face water shortage. Climate change can compound existing pressures on water, food, energy, land which, if not carefully governed, may create new and accelerated paths to conflict. From 47 nations regarded as water stressed or water scarce in 2007, 25 are regarded as facing a high risk of armed conflict and climate change is best understood as a threat multiplier. Water resources have generally not led to violence between states but there is risk within states as different groups contend for it.

The Niger River constitutes an important economic driver for surrounding non-Basin countries, which rely upon products and are connected by trade and migration routes. Niger River is a spinal column for the economy of West Africa. Changes in river flow have significant impacts on the livelihoods of the estimated 100 million people. Basin's population is expected to double to 200 million by 2020. There is not good rainfall projections model in the region and unsustainable resource use and desertification is threatening the river's ability to support its currently rich biodiversity and provide resources to communities.

Changes in water quantity and quality due to climate change will affect food availability, stability, access and utilization. The increase in population, migration to rural and urban, development and industrialization as well as pollution and rapid demand growth of drinking water have create stress on water resources.

Recommendations:

- Encourage the establishment of basin authorities
- Develop governmental bodies at national and local levels whose work directly or indirectly affect water resources management including policies and plans for land use, environmental protection and conservation, economic development and trade;
- Increase knowledge base and technical expertise, including developing assessment indicators and increasing the quality of information available;
- Explore and encourage indigenous coping mechanisms;
- Coordinate, collaborate and integrate awareness creation, sensitization programs and campaign at national and international levels including harmonization of donor strategies;

- Adopt a conflict sensitive “*do no harm*” philosophy or “*be your brother’s keeper*” approach which will encourage sharing and mutual benefits of all concerned;
- A need for a coordinated, harmonized and integrated approach of donor communities on developing climate adaptation and mitigation strategy;
- Develop a climate policy that keeps a balance between mitigation and adaptation solutions that limit the overall impacts of climate change;
- Intensify efforts to promote emission reduction and use alternative means to satisfy energy needs, for example wind and solar energy to generate steam and run turbines to generate power;
- Promote women’s involvement in the water sector, using a gender analysis framework to understand how policies and programs impact women and men of different classes and economic backgrounds;
- Involve civil society organisations in creating awareness, facilitating inter group dialogues and developing a framework for water management; and
- Initiate steps to incorporate climate change in school curricula.

20. Climate Change and Transboundary Water Conflicts in Lake Chad Region: the Case of Nigeria and Cameroon

H.E Ambassador Neske Guillaume, Permanent Representative of OIF to the AU and UNECA

The English translation is unavailable presently but will be included in the final Workshop Report. Please excuse any inconvenience.

21. Sources of Conflicts around the Migingo Island: Approaches and Assessment of the Intervention Efforts by the Government of Kenya and Uganda

Mr. Michael A Oyugi, Deputy Head of Mission, Kenya Embassy, Addis Ababa, Ethiopia

Focuses on the current conflict over Migingo Island located between Kenya and Uganda. It’s a piece of rock located well inside Lake Victoria, a population of about 300 people, of which majority are estimated to be Kenyans. This paper looks at the conflict as a territorial and resource-based conflict. One could conclude that there are two main problems or issues underlying the Migingo dispute. One is fish stocks and the other problem is the boundary line. Demarcation along the maritime border between Kenya and Uganda has not been done.

The two countries have so far addressed the dispute at two main levels. The first at ministerial/policy level and other one is the technical involving surveyors and related professionals. Whereas the approach at the technical level has been fairly identical, the same has not been the case at the policy level. The paper defines the variation of approach as a manifestation of different thinking or of interpretation of the dispute. But both countries have shown clear preference for an amicable solution. The dispute appears to be more about a question of marking the boundary line rather than a clamour for more territory.

Recommendation:

- Bilateral talks to minimize and avoid misunderstanding by the involvement of third for a durable solution.

22. Assessing Climate Change and Desertification in West Africa: The Niger Experience in Combating Desertification in the Region

Dr. Oumarou Amadou Sonrhail, Embassy of Niger to Ethiopia, Councillor, Addis Ababa, Ethiopia

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23. The Role and the Experiences of ECCAS in Managing Climate Change and Transboundary Water Conflicts in ECCAS Region

Lt. Col Mangondza Godelin Medrad

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Summarized by Dr. Debay Tadesse, senior researcher (ISS) and Ledet Teka, intern (ISS)