

UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL ECONOMIC COMMISSION FOR AFRICA

AFRICAN UNION COMMISSION

Twenty-seventh meeting of the Committee of Experts

Third meeting of the Committee of Experts

26 - 29 March 2008

Forty-first session of the Economic Commission for Africa

Third session of CAMEF

31 March – *2 April 2008*

First Joint Annual Meetings of the AU Conference of Ministers of Economy and Finance and ECA Conference of African Ministers of Finance, Planning and Economic Development

Addis Ababa, Ethiopia

Distr.: General E/ECA/COE/27/8 AU/CAMEF/EXP/8(III) Date: 5 March 2008

Original: English

CLIMATE CHANGE: AFRICAN PERSPECTIVES FOR A POST-2012 AGREEMENT

I. Introduction

The economies of African countries depend largely on sectors such as agriculture, fisheries, forestry and tourism that are particularly vulnerable to environmental changes. Among such changes, climate change emerges as one of the most challenging that threatens sustainable development in Africa. In the region, anthropogenic practices and, in particular energy production and consumption, have been identified as the main sources of greenhouse gas emissions causing climate change, although increasingly, some reports point to the emerging importance of dust as a key factor in climate variability and change. Climate change is expected to result in increased frequency and severity of droughts, floods and other extreme weather events adding to stress on water resources, food security, health, infrastructure and thus overall development. Most African communities are vulnerable to these impacts mainly because of high poverty levels, reliance on rainfed agriculture, lack of access to technology and improved cultural practices.

The scientific evidence that climate change is a serious and urgent issue is now compelling. It warrants strong action to reduce greenhouse gas emissions around the world to reduce the risk of very damaging and potentially irreversible impacts on ecosystems, societies and economies¹. This observation is supported by the recently released Fourth Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC), which assert that studies conducted have allowed for a broader and more confident assessment of the relationship between observed warming and impacts than was made in the Third Assessment. The reports state that most of the observed increase in globally averaged temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations. Furthermore, more specific information is now available across a wide range of systems, sectors and across the regions of the world concerning the nature of future impacts, including for some fields and places not covered in previous assessments².

It is widely recognized that although climate change impacts will affect all countries, the poor will be disproportionately affected. Their reliance on local ecological resources, coupled with existing stresses on health and well-being (e.g., HIV/AIDS, illiteracy) and limited financial, institutional and human resources leave the poor most vulnerable and least able to adapt to the impacts of climate change. Consequently, there is growing recognition that climate change may undermine the ability of developing countries to meet the targets put forth in the Millennium Development Goals (MDGs), thereby slowing progress towards sustainable development. Most ironically, the vast majority of those most vulnerable to the impacts of climate change are also the least responsible for contributing to it in the form of GHG emissions3.

¹ Stern Review, 2006

² IPCC, 2007

³ IISD and Ministry of Foreign Affairs of Denmark, 2007.

II. Climate Change and Sustainable Development in Africa

Africa's contribution to climate change

The Assessment of Impacts and Adaptations to Climate Change (AIACC)⁴ study shows that climate is changing throughout Africa with notable alteration of the micro-climates of the highland areas of East Africa. Analysis of time-series data from 1978 to 1999 reveals that the maximum and minimum temperatures have changed, with significant increases generally recorded at all sites. Analyses of data over the period 1961 to 2001 also reveal decreasing trends in rainfall. The temperature changes have been more pronounced at the higher altitudes than in the lowlands.⁵ For instance, the temperature in the Kabale district of Uganda has also shot up by 2°C (3.6°F) in the last three decades.⁶

Development paths that are high carbon intensive contribute to global warming. Africa suffers modern energy poverty, a hindrance to sustainable development. Overall Africa's per capita energy consumption remains low and, hence, the contribution of the region to global climate change is minimal. However localized impacts are evident, especially where extraction of wood for fuel is high and surpasses reforestation rates. It is expected that current energy consumptions patterns will prevail though the share of renewable energy will gradually increase.

The transport sector consumes the largest share of petroleum-based fuels and alternatives are likely to be difficult to implement mainly due to high costs involved. However, the overall average number of vehicles per person in Africa remains among the lowest globally. The relaxation of the laws governing importation of used vehicles in many countries is increasing the number of vehicles at relatively fast rate, causing congestion and hence increased localized emissions.

Clearing of forestland to make way for settlement and agriculture affects the climate system and threatens water supply systems. The share of forestland in the continent is reported to be decreasing at alarming rates.

Impacts of climate change on sustainable development

Although Africa contributes only about 3.8 percent of total greenhouse gas emissions, countries of the continent are among the most vulnerable to climate change in the world. This vulnerability of the region derives from multiple stresses coupled with low adaptive capacity. First, the geographical location of many African countries is characterized by already warmer climate, marginal areas that are more exposed to climatic hazards such as rainfall variability, poor soils and flood plains. Second, the economies of most African countries still rely heavily on climate-sensitive sectors such as rain-fed agriculture, fisheries, natural resources and tourism. Third, the continent is plagued by inadequate ability to respond to the direct and indirect effects of climate change because

⁴ AIACC Project Profile www.aiaccproject.org

⁵ Wandiga *et al* (2004) Vulnerability to Climate Induced Highland Malaria in East Africa. Report of the Assessment of Impacts and Adaptation to Climate Change in Multiple Regions and Sectors (AIACC) Project *In Preparation*.
⁶ Ibid.

of widespread poverty, poor economic and social infrastructure, conflicts, and limited human, institutional and financial capacities.

The Fourth Assessment Report of the IPCC and other major reports such as the Stern Review of the Economics of Climate Change shed light on current and projected impacts of climate change on Africa's development. Such major impacts that threaten the achievement of the Millennium Development Goals (MDGs) and sustainable development in the region would be mainly felt in the following sectors.

Agriculture

Agriculture is the backbone of most African economies, accounting for as much as 40 percent of the total export earnings and employing 60-90 percent of the total labour force in Sub-Sahara Africa (SSA). Over 50 percent of household food needs and an equivalent share of income emanate from agriculture. The bulk of agricultural systems in Africa are climate dependent, as most of sub-Sahara relies primarily on rain-fed agriculture. Climate change hence intensifies food insecurity as productivity decreases and prices go up in countries already suffering from chronic food insecurity. As indicated in figure one, the number of countries facing the threat is quite high. Hunger victims have been on the increase mainly as a result of extreme weather events. The ability to diversify is limited by a variety of factors including the global trade system.

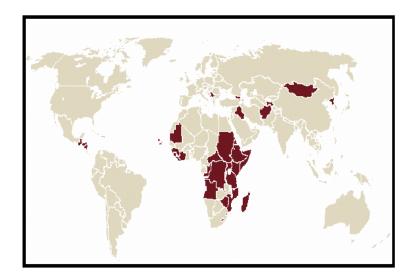


Fig. 1: Countries facing food insecurity (2004)

Climate change is projected to severely compromise agricultural production and food security in many African countries and sub-regions. The area suitable for agriculture, the length of growing seasons and yield potential, particularly along the margins of semi-arid and arid areas, are expected to decrease significantly. The rainfall patterns are predicted to change. Under a fast global warming scenario, large areas of Africa would experience changes in December-February or June-August rainfall that significantly exceed natural variability, with significant consequences on agricultural systems. For instance, climate change modelling results of the IPCC indicate that a warming by another 0.4°C on current temperatures would result, by 2020, in a shortening of crop growing period

by more than 20 percent in the Sahel and a reduction of yields from rain-fed agriculture by up to 50 percent in many African countries. Projected loses in cereal production potential in SSA are estimated at about 33 percent by 2060. More frequent and severe droughts, floods and weather extremes would compound the constraints on crop and livestock production systems. Some countries have significant agricultural production from coastal zones, which are threatened by sea level rise and increasing temperatures. These include Kenya (mangoes, cashew nuts, and coconuts); Benin (coconuts and palm oil); Guinea (rice) and Nigeria where coastal agricultural land accounts for about 75 percent of total. Local food supplies would be also affected negatively by decreasing fisheries resources in large lakes due to rising water temperatures. The combined impacts of these events would threaten the very livelihoods of significant proportions of the population and curtail the prospects for broad-based economic growth, poverty reduction, food security and environmental protection in the continent.

<u>Water</u>

Africa's water resources have been decreasing over time mainly as a result of persistent droughts and land use patterns in Africa. Climate change is expected to amplify this situation.

For example, the melting of glaciers on Mt. Kilimanjaro is a result of global warming. An estimated 82 percent of the 1912-amount of icecap of the mountain has gone and, according to recent projections, if recession continues at the present rate, the majority of the glaciers on Mt Kilimanjaro could diesapper in the next 15 years. The snow and glaciers of Mt Kilimanjaro act as a water tower and several rivers are drying out in the warm season due to the loss of this frozen reservoir.

Towns and farming communities around the mountain are bound to be affected, as the bulk of Tanzania's coffee and bananas are produced there. Other glaciers in Africa (such as Ruwenzori in Uganda and Mt Kenya) are also under threat. The ice cap on Mount Kenya has shrunk by 40 percent since 1963 and a number of seasonal rivers that used to flow from atop the mountain to the surrounding areas have since dried up.

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Change in glaciers after 90 years

Water levels have also decreased seriously in major lakes such as Lake Victoria, lakes within the Rift valley and Lake Chad, which has lost over 50 percent of its water between 1973 and 2002. Several rivers are already drying out in summer, and major rivers such as the Nile, Niger and Zambezi face declining water levels. By 2050 the area experiencing water shortages in SSA will have increased by 29 percent, while river flow in the Nile region will decrease by 75 percent by 2100 with damaging consequences on irrigation practices. As a result, the IPCC Report projects that by 2020, between 75 and 250 million people in Africa would be exposed

⁷ Desanker PV (2003) WWF Report on Impacts of Climate Change in Africa.

to increased water stress. Decreasing water levels is also expected to negatively affect water quality. If coupled with increased demand on water for different uses (agriculture, industry, energy, etc.), this will adversely affect livelihoods and exacerbate water-related problems, such as conflicts resulting from competing demands and the management of shared water resources.

Energy

A combination of reduced water flows to major hydropower dams and worsening depletion of biomass energy resources resulting from climate change could seriously compound the already dire state of energy availability and accessibility. It is also expected that offshore oil production will be negatively impacted by rise in sea level. The resulting constraints on energy production and access would further impede industrial development throughout the continent.

Health

Changes in rainfall and temperature associated with climate change are expected to increase the occurrence and geographic range of vector-borne diseases in Africa. Warmer environments as well as altered temperature and rainfall patterns will expose many sub-regions such as the Sahel, Southern and Eastern Africa to increased outbreaks and severity of vector borne diseases such as malaria, cholera, yellow fever, meningitis, trypanosomiasis and rift valley fever. The health issue is strongly demonstrated by the El Nino effects. The 1997/98 El Nino in East Africa was accompanied by rising malaria, fever and cholera incidences.

Temperature increases in the East African Highlands⁸ have enabled malaria vector mosquitoes to find new habitats in the highlands. This has resulted in high malaria epidemics in the highlands communities of East Africa, where communities living at altitudes above 1100m are more vulnerable due to lack of immunity. Yet, predictions show that high altitude areas such as Nairobi may face new risks if the range in which mosquito can breed increases. Meningitis may also spread beyond the drier West and Central African parts to the Eastern African region. Africa already accounts for 85 percent of the deaths and diseases associated with malaria. Yet maternal mortality emanating from malaria-associated anemia is likely to rise with climate change and the consequent decrease in water quality. Areas with already poor sanitary conditions will become particularly vulnerable to disease as water scarcity intensifies.

<u>Human settlement</u>

Sea level rise due to climate change will shift coastal boundaries backwards, forcing people to migrate and destroying infrastructure, fauna and flora. The West coast of Africa is one of the most vulnerable areas. The IPCC report projects that, towards the end of the 21st century, sea-level rise would affect low-lying coastal areas with large populations in Africa, further degrading mangroves and coral reefs and threatening human health, infrastructure, fisheries, biodiversity and tourism industries. It is worth noting that more than one quarter of Africa's population lives within 100 kilometres of the coast, and most of Africa's largest cities (such as Cairo, Lagos and Kinshasa, with

⁸ Wandiga *et al* (2004) Vulnerability to Climate Induced Highland Malaria in East Africa. Report of the Assessment of Impacts and Adaptation to Climate Change in Multiple Regions and Sectors (AIACC) Project *In Preparation*.

more than 8 million inhabitants each) are along coasts vulnerable to sea level rise, coastal erosion, and extreme climate events.

Forests, wildlife and biodiversity

Scientists warn that global warming will have dramatic effects on wildlife as findings from a new study show that 370 of 500 species are already changing behavior in response to warming temperatures. Current estimates indicate that, by 2085, between 25 percent and over 40 percent of species' habitats could be lost, while 80 to over 90 percent of species suitable habitats would decrease in size or shift in Africa due to climate change. This spells doom for millions of people whose livelihoods are associated with biodiversity resources, including the four hundred million Africans -- two-thirds of the people in Sub-Saharan Africa -- who rely on products from forests.

Population migrations and increased risks of conflicts

Extreme climate events such as floods, droughts, desertification and sea-level rise are likely to force increasing numbers of African population to migrate to from rural to urban areas, as well as away from increasingly arid areas, low lying coastal areas and small islands productivity. The resulting massive migrations could spark violent conflicts for access to and control of key livelihood resources such as land and water. For instance, the number of people affected by drought in Africa since the 1970s increased from nil to 35 million, and the current conflict in the Darfour region of the Sudan is partly associated with migrations induced by such climate-related hardships.

III. Facing up to the climate change challenge in Africa

Regional responses

Pursuing a sustainable development path can reduce vulnerability to climate change by enhancing adaptive capacity and increasing resilience in Africa. At present, however, few plans for promoting sustainability have explicitly included either adapting to climate change impacts, or promoting adaptive capacity.⁹

Africa's political leaders have expressed explicit commitments to tackle the climate change challenge. At the eighth Ordinary Session of the African Union held in January 2007, African Heads of States and Government expressed grave concern on the vulnerability of Africa's socio-economic and productive systems to climate change and variability and the continent's low mitigation and response capacities. In their decision and declaration on climate change, they called upon Africa's cooperation partners to support the member States and Regional Economic Communities (RECs) to effectively integrate and implement adaptation and mitigation measures into their development plans. They also urged African States and RECs, in collaboration with the private sector, civil society and development partners, to integrate climate change considerations into development strategies and programmes at national and regional levels. The African Union Commission (AUC) was requested to work with the United Nations Economic Commission for Africa (ECA) and the African

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⁹IPCC, 2007.

Development Bank (AfDB) to develop and implement a major plan on climate change and development in Africa.

In April 2007, the Fortieth session of the ECA Conference of African Ministers of Finance, Planning and Economic Development adopted a Resolution engaging African member States and development partners to support the implementation of the same plan.

In tune with these resolutions, ECA has partnered with AUC and AfDB to develop and implement, in collaboration with relevant regional and international institutions, a major Climate Information for Development in Africa (ClimDev Africa) programme, with a view to promote and support the integration of Climate Risk Management (CRM) into pertinent policy and decision processes as well as sectoral practices throughout the continent. ClimDev Africa aims to enhance economic growth and progress towards the MDGs and sustainable development through mitigating the vagaries of climate variability and climate change and ensuring that development achievements already gained are climate resilient in the longer term.

The Overall purpose of ClimDev Africa is to strengthen the climate-resilience of economic growth and the MDGs through mainstreaming climate risk management in sensitive sectors. This fits with national poverty reduction strategies (PRSs) in Africa oriented towards the MDGs. It also accords with AU/NEPAD plans for improved agriculture and food security, disaster risk reduction and environmental action, and the global programme on adaptation to climate change agreed at COP-12 in November 2006.

ClimDev Africa is thus meant to respond to the needs for an integrated approach and collective action to addressing issues of climate-related data and observations, information services, policies and risk management practices in building climate-resilience capacity. The expected outcome from the Programme is improved availability and use of quality climate information and services addressing needs of local, national and regional scale decision makers and stakeholders, in support of sustainable development and achievement of the MDGs, in critical climate-sensitive sectors and areas in Africa. This would include tangible results in the following areas:

- (a) Policies: Political engagement of African States in managing climate risk to assist development and adaptation to climate change;
- (b) Practices: Improved states of agriculture and food security, water resources, health, energy and environment in African countries through better CRM;
- (c) Services: Adequate information services provided to relevant stakeholders (public sector, private sector and civil society) for the full range of CRM practices required to deliver the desired development outcomes in all countries; and
- (d) Data and Infrastructure: Improved data and analytical products sectoral CRM, monitoring climate variability and climate change, with strengthened observation networks and service centres in Africa.

In the same vein, two recent initiatives are worth mentioning: the African Regional Workshop on Adaptation organized by UNFCCC Secretariat in September 2006; and the IDRC/DFID funded Climate Change Adaptation in Africa (CCAA) ¹⁰.

The need for a global and holistic response

The effort on the part of Africa notwithstanding, climate change is a global problem, and response to it must be international and holistic. It must be based on a shared vision of long-term goals and agreement on frameworks that will accelerate action over the next decade, and it must build on mutually reinforcing approaches at national, regional and international levels¹¹.

Dialogue among the key international partners to explore global climate strategies is being conducted in various international forums: formally under the UNFCCC, but also within the G8 and other multilateral and bilateral meetings¹². The 2005 G8 Gleaneagles Summit pledged to support efforts of developing countries and regions obtain full benefit from placement of observational systems to fill data gaps, develop in-country and regional capacity for analysing and interpreting observational data, develop decision-support systems and tools relevant to local needs and, in particular, work to strengthen the existing climate institutions in Africa¹³. But, chief among the ongoing processes towards a global climate agreement are the outcomes of the Bali Conference on Climate Change held in December 2007.

IV. Key Outcomes of Bali Conference and Implications for Africa

Mr. Yvo de Boer, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC) indicated that in Bali, there was a great desire of Parties to make progress, huge public awareness and a sense of joint purpose and common ownership of the outcome. With regard to the future, the Conference delivered what it was supposed to do: the launch of negotiations to craft a new international climate change agreement by the end of 2009, whilst setting a clear roadmap for these talks. The conference delivered immediate results, which were particularly important for developing countries, not least in the areas of adaptation funding, technology transfer and reducing emissions from deforestation. The conference also established a timetable for negotiations on the new emission targets for industrialized countries under the Kyoto Protocol, along with defining the scope and content of the upcoming review of the Protocol.

Of particular importance for Africa are the following.

Adaptation Fund

The UN adaptation Fund was established under Article 4.4 of the UNFCCC which states that: "the developed country Parties shall assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse

¹¹ Stern Review, 2006

¹³ ECA, 2007.

¹⁰ ECA, 2007.

¹² Pérez-Arriaga, I., Linares, P., Batlle, C., and Barquín, J., 2007.

effects." The Adaptation Fund may become a prime instrument to help developing countries with adaptation to climate change.

A decision was adopted to operationalise the Adaptation Fund for developing countries that are particularly vulnerable to the adverse effects of climate change. The role of the Global Environment Facility (GEF) was a key consideration for Parties. The Adaptation Fund Board is to be serviced by a secretariat and a trustee. As part of the agreement, the GEF was invited to act as the secretariat of the Board and the World Bank to serve as a trustee on an interim basis. It was also decided that this interim arrangement would be subject to periodic review. Subsequently, Parties agreed to ensure that funded projects would not be jeopardized in the event of any revision of institutional arrangements. The Board shall comprise 16 members representing parties to the Protocol, with two representatives from each of the five UN regional groups, one from the SIDS, one from LDCs, two non-Annex I parties and two Annex I parties. Decision-making is to be by consensus, and in the event of no agreement, by two-thirds majority.

Capacity Building in developing countries

The conference invites submissions on monitoring and evaluation of capacity building at the national level by 15 August 2008, for consideration. It requests the Secretariat to prepare a technical paper on the subject and to hold a workshop, subject to availability of resources, on performance indicators for monitoring and evaluating capacity building at the national level prior to COP-14. The conference requests Parties to continue to assist non-Annex I Parties, particularly LDCs and SIDS, to attract Clean Development Mechanism (CDM) projects in Africa.

Technology Transfer

The conference requests the Secretariat to implement a regional training programme followed by regional training workshops in 2008 and 2009, organize meeting on technologies for adaptation, update the UNDP handbook on conducting technology needs assessments (TNAs). The COP further decided to consider effective mechanisms and enhanced means for the removal of obstacles to financial and other incentives for the scaling up of technology development and transfer.

Reducing emissions from deforestation in developing countries

The Bali Conference include the following:

- (a) Affirms the urgent need to take further meaningful action to reduce emissions from deforestation and forest degradation in developing countries;
- (b) Encourages Parties to explore a range of actions and undertake efforts, including demonstration activities, to address the drivers of deforestation, with a view to reducing emissions from deforestation and forest degradation and thus enhancing forest carbon stocks due to sustainable management of forests; and
- (c) Notes the further consideration, under the Bali roadmap, of policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest

degradation in developing countries; and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries.

Bali Roadmap

One of the most significant issues taken up during the Conference was that of a multilateral framework to address climate change during the post-2012 period, when the Kyoto Protocol's first commitment period expires. Negotiators spent much time seeking to agree on a two-year process or "Bali roadmap", to finalize a post 2012 regime by December 2009.

During the negotiations, several issues proved difficult to resolve, especially during the talks on long-term cooperative action under the Convention. Discussion on mitigation by developed and developing countries was particularly contentious. Parties finally agreed to a proposal by India and other developing countries, to a text referring to nationally appropriate mitigation actions by developing country parties in the context of sustainable development, supported by technology and enabled finance and capacity building in a measurable, reportable and verifiable manner. The decision on long-term action under the Convention was thus adopted.

The Conference decisions establish a process and set out guidance and direction for a series of meetings over the next two years under both the Convention and Protocol, with the aim of producing a comprehensive outcome on post-2012 issues at COP-15 and in COP-14 in Copenhagen, Denmark, in 2009.

The COP decided that the process shall address enhanced national/international action on mitigation, as well as enhanced action on adaptation, technology development and transfer, and provision of financial resources and investment. On adaptation, the conference decided to address a range of issues, including international cooperation to support urgent implementation of various adaptation actions, taking into account the immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change, especially LDCs, SIDS and African countries.

In a note, the Executive Secretary of UNFCCC stresses that: "the Bali Action Plan calls for the road to Copenhagen to be an open process – open to the private sector, international organizations and civil society. This offers opportunities for the business community, along with international financial institutions, to contribute. With private investments constituting 86 percent of investment and financial flows related to climate change, businesses are key to the solution. ... Furthermore, multilateral organizations can spur green, low carbon growth in developing countries by mainstreaming climate change into the development agenda. Here, UN organizations such as the World Bank and UNDP are called upon to provide input. Other UN agencies will for example need to say what is required in areas of disaster risk assessment and disaster strategy management..." (http://unfccc.int/press/news_room/newsletter/in_focus/items/4272.php)

V. Africa and the Way forward

The UNFCCC and its Kyoto Protocol are the most recognized and advanced elements of the global response to climate change. The Kyoto Protocol has established some valid guidelines that should prove useful for the future global clime regime. These include gradualism, country differentiation, the ability to separate equity and efficiency issues, flexibility for meeting commitments, the comprehensive treatment of all emissions sources and all GHG, and market mechanisms that incorporate the developing countries¹⁴. The Protocol also requires Parties to begin considering the post-2012 period.

The development of a more effective and inclusive approach to addressing climate change in post-2012 was given a considerable boost with the launch of a two-track process initiated under the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (COP-11/MOP-1) held in Montreal in November/December 2005. The Ad Hoc Working Group (AWG) on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG) was established by decision 1/CMP.1, to, inter alia, ensure that there is no gap between the first (2008-2012) and the second (post-2012) commitment periods in accordance with Protocol Article 3.9 (future commitments).

At COP-13, many parties highlighted the urgency of agreeing on a post-2012 regime, with some stressing it should involve all major emitters, and others underscoring the principle of common but differentiated responsibilities. There was general agreement on the need to ensure that there is no gap between the first and second commitment periods, and the need for a strong signal of continuity to the carbon markets and the CDM. There is an increasing realization within the international community that achieving the consensus and commitment needed to take stronger action on climate change, with all major emitting countries participating in the solution, requires positioning climate change in a broader policy context. The climate change negotiations do not take place in isolation from other developments on the global agenda 16.

It is clear that negotiations on future commitments will be difficult, but the road is not an impossible one, if negotiations are fair and reflective of national circumstances. Individual countries are at different stages of development. If equity is taken seriously, a logical and rational approach to emissions reductions should be based on countries' respective levels of development, and their commitments linked to responsibility, potential and capability to mitigate. For developing countries to participate, emissions commitments will have to take into account development needs as well as technological and financial resources transferred from the developed world.¹⁷. In any case, the consensus at this stage seems to be that no commitment will be possible before developed countries demonstrate that they are serious about tackling climate change within the context of common but differentiated responsibilities. Looking at recent emissions trends, some developing country delegates argue that they have reasons to remain skeptical¹⁸.

¹⁴ Pérez-Arriaga, I., Linares, P., Batlle, C., and Barquín, J., 2007.

¹⁵ IISD, 2005.

¹⁶ IISD and Ministry of Foreign Affairs of Denmark, 2007.

¹⁷ Taishi Sugiyama, Kristian Tangen, Henrik Hasselknippe, Axel Michaelowa, John Drexhage, Jiahua Pan, Jonathan Sinton, and Arild Moe, 2004.

¹⁸ IISD, 2005, IISD, 2006.

adaptation and technology transfer. Africa must come up with sound arguments supported by facts, with a view to ensuring that their concerns are addressed. The principle of common but differentiated responsibilities must be effectively invoked.

Flexible mechanisms

The need to ensure the continuity of CDM beyond 2012 is recognized. However, Africa accounts for only a small share of CDM projects and countries have therefore called for equitable geographic distribution of CDM projects, particularly to expand the number of projects in Africa. In this regard, increased financial support, capacity building and technology transfer and the streamlining of the CDM are a must. Given the link between the CDM and poverty reduction, Africa should exploit this link to meet its development goals, while simultaneously addressing climate change concerns. To this end, it must present a strong sustainable development case for significantly increasing its share of CDM projects. Pérez-Arriaga et al, have advanced that design modifications of the CDM must address three major concerns: greater contribution to sustainable development has to be included as an explicit item in the evaluation of the CDM projects; the revised format of the CDM must encourage and / or facilitate its application to large projects- or large combinations of small ones; and the scope of the CDM must be extended to larger geographical areas and to new technologies.

Technology Development and Transfer

Technology development and transfer is key to mitigating and adapting to climate change. In Africa, low technological capacities and capabilities have been a major impediment to development. The region therefore needs capacity building to enhance its technological development, including indigenous technology, particularly environmentally sound ones. Given its low level of technology development, capacity building must be complemented by technology transfer. Technology transfer to Africa has been very unsatisfactory, thus prompting the call by African countries for the establishment of a new body under the Convention, the Technology Development and Transfer Board (TDTB), a Multilateral Technology Acquisition Fund (MTAF) to buy intellectual property rights; and developing indicators to monitor implementation of the technology transfer framework. In view of the importance of technology development and transfer to meeting development needs and climate change concerns, Africa's stance on the matter should be maintained, if not upped.

Commitments under the Protocol

African countries have consistently lamented the lack of commitment on the part of developed countries to honor their obligations under the Convention and Protocol. The rising greenhouse gas emissions and delays in reporting by Annex I countries are a cause for concern. In this regard, developing countries have urged for a full implementation of commitments under the two instruments and have called for the capping of emissions by developed countries. Given that developing countries, particularly Africa, is disproportionately affected by the greenhouse gas emissions of developed countries, it should adopt a strong stance towards ensuring that developed countries fulfill their obligations.

Review of the Protocol pursuant to article 9

Developed and developing countries have divergent views on the review of the Protocol. While developed countries generally support a thorough review of all aspects of the Protocol, including its decisions, the G-77/China support a review focused on specific issues. Developing countries base their argument on the fact that Article 9 is about "review and not "revision. Furthermore, developing countries are calling for further commitments for Annex 1 Parties, while maintaining that no further commitments are required on the part of developing countries. However, the EU and other developed country parties have stressed that action by Annex I Parties would not be sufficient to tackle climate change and have proposed that a future framework should include all major emitters. Since Africa has the lowest emission of greenhouse gases, but will suffer the most as a result of climate change due to its low adaptive capacities and capabilities, the African Group should advance a strong development case for not meeting further commitments and at the same time benefiting from increased financial assistance, capacity building and technology transfer.

The need for a regional preparatory process

An effective regional preparatory process is essential to effectively guide and prepare African countries for the second review of the Protocol and to institute a regional consultative mechanism that would strengthen Africa's negotiating position in all post 2012 issues following the 2008 review. Such a process should involve participation of key stakeholders and result in effective incorporation of Africa's concerns and priorities in the outcomes of all post 2012 global reviews and negotiations.

The overall objective of a regional preparatory process should be to provide guidance and facilitate consultations and effective coordination of Africa's preparations for the second review of the Kyoto Protocol. A sound post-2012 regional consultative process would thus help strengthen Africa's negotiating position and ensure that consensus on well-articulated African positions on post-2012 issues, which adequately responds to the continent's sustainable development concerns, is reached and defended in the most effective and efficient manner. Through their respective Regional Economic Communities (RECs), all African countries that are signatories to the Protocol should be actively engaged in the process.

African Climate Policy Centre

In support of such a regional preparatory process and efforts of its member States at mainstreaming climate change concerns in their development frameworks, ECA has committed to establishing a dedicated African Climate Policy Centre. The purpose of the Centre is to create a capacity hub to generate, assemble and administer an adequate base of knowledge to strengthen efforts and capacities of African countries to address the challenge that climate change poses for sustainable development in the continent. The Centre will thus contribute to enabling African countries to (a) better manage their resources in a sustainable manner, and (b) participate more effectively in international discussions on climate change that will influence their economic and social development.

Encouraging efforts are underway with a view to operationalizing, during the first semester of 2008, the Centre, which will focus on climate change related to the following:

- (a) Policy research and analysis;
- (b) Consensus building at the regional level;
- (c) Capacity strengthening;
- (d) Technical advice and assistance;
- (e) Communication and outreach; and
- (f) Knowledge management and peer learning.