Economic
Commission
for Africa

# Climate Change:
# A Call to Action for African Leaders

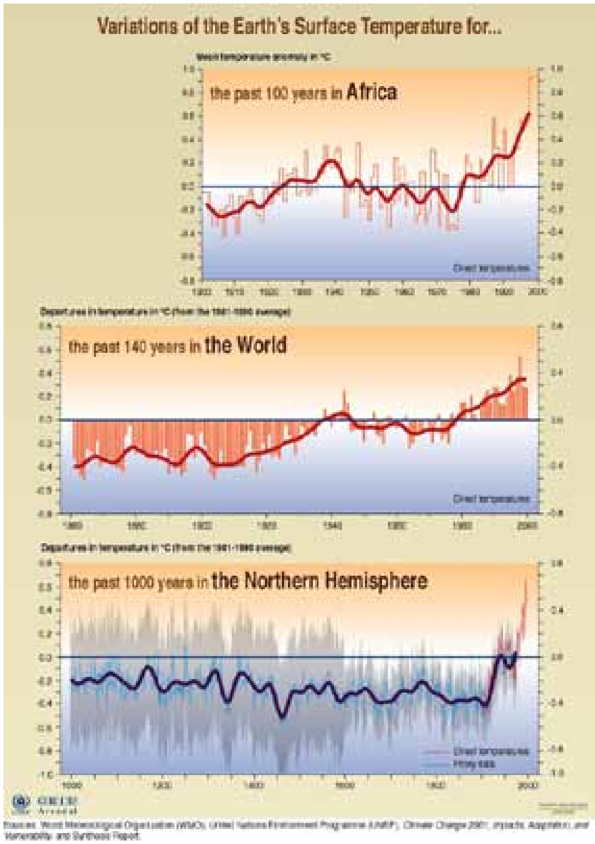
Africa Progress Panel
African Development Bank
United Nations Economic Commission for Africa
United Nations Environment Programme

JUNE 2009

Salima, Malawi

This policy brief has been prepared by the APP Secretariat under the guidance of its climate change advisor Guido Schmidt-Traub and in partnership with the African Development Bank, United Nations Economic Commission for Africa, and United Nations Environment Programme. Earlier drafts were presented at the third Financing for Development Conference in Africa "Climate Change: Financing opportunities and challenges to achieve the MDGs in Africa" and to the African Ministerial Conference on Environment (AMCEN). The authors are grateful for extensive comments received from African governments and many reviewers on earlier drafts. A longer version of the brief is available at www.africaprogresspanel.org.

The evidence is clear. Climate change is a reality that is already affecting the lives of millions of Africans and will have a profound impact on the programming of public expenditures and public receipts in every African country. If left unchecked it threatens to undo some of the progress made in recent years and will jeopardize countries' ability to generate sustained economic growth, create employment, and achieve the Millennium Development Goals (MDGs). So climate change cannot be managed by the Ministries of the Environment alone. African Ministers of Finance and Planning as well as Heads of State need to take note.




In December 2009 world leaders will convene in Copenhagen to negotiate the global framework to reduce emissions of greenhouse gases and accelerate efforts to adapt to the changes in the global climate that have by now become inevitable. If Copenhagen is to adequately address the special needs of the world's least developed countries (LDCs), most of which are in Africa, African Heads of State need to develop an effective negotiating position that addresses the special needs of Africa and promote it forcefully.

This briefing note outlines the implications of climate change for African governments. It aims to contribute to the debate among African leaders on how to shape a negotiating position in the run-up to Copenhagen.

## THE SCIENTIFIC BASIS

The scientific evidence shows that Africa is likely to be hardest hit by the changes brought by climate change. Key trends that may affect much of the continent include a drop in agricultural yields by as much as 50% by 2020; an additional 70-200 million Africans may be at risk of increased water stress from climate change; a 2°C rise in temperatures may expose an additional 40-60 million Africans to malaria; and rising sea levels may cause increased risk of flooding and severely affect mangrove forests as well as coastal fisheries. In particular low-lying coastal cities, where a growing share of Africans lives are likely to be severely affected by climate change.

While the consequences of climate change are most apparent and severe in Africa, the continent has contributed by far the least to the problem. Africa accounts for a mere 2.3 percent of fossil fuel consumption compared with a population share of 13.8 percent.

## BOX 1:
## Roadmap towards Copenhagen

| | |
|---|---|
| **May:** | First draft of negotiating text released for Copenhagen by the chair of the Ad-Hoc Working Group on Long-term Cooperative Action. |
| **21-22 May:** | Third edition of the Financing for Development Conference "Climate Change: Financing opportunities and challenges to achieve the MDGs in Africa" hosted by the Government of Rwanda. |
| **25-29 May:** | Special session of the African Ministerial Conference on the Environment (AMCEN) in Nairobi, Kenya, to develop a common African negotiation position. |
| **1-12 June:** | UNFCCC Subsidiary Body meeting in Bonn to discuss draft negotiating text and prepare the December COP15 and provide an opportunity to narrow differences (AWG-LCA - Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol and AWG-KP - Ad Hoc Working Group on Long-term Cooperative Action under the Convention). |
| **22-23 June:** | Major Economies Forum (MEF) meet in Mexico to explore concrete initiatives to increase clean energy sources and reduce greenhouse emissions. |
| **24 June-3 July:** | African Union (AU) Summit in Sirte, Libya. |
| **8-10 July:** | G8 Summit in L'Aquila, Italy, with Major Economies Forum convened on the sidelines. |
| **10-14 August:** | AWG-LCA and AWG-KP will convene in Bonn, Germany, to discuss draft negotiating text. |
| **31 August-4 September:** | World Climate Conference 3 (WCC-3) in Geneva, Switzerland. |
| **3 September:** | Special Session of the Africa Partnership Forum on Climate Change, Addis Ababa, Ethiopia. |
| **September:** | Opening of UN General Assembly and UN Climate Change Summit in New York; and G20 meeting in Pittsburgh, United States. |
| **28 September-9 October 2009:** | AWG-LCA and AWG-KP will convene in Bangkok, Thailand. |
| **2-6 November:** | AWG-LCA and AWG-KP will convene at undecided location to finalize draft text. |
| **7-18 December:** | UNFCCC COP15 in Copenhagen, Denmark. Governments will convene to negotiate the successor treaty to the Kyoto Protocol, which expires at the end of 2012. The treaty will be critical to put the world on a path towards reducing global emissions. |

The Intergovernmental Panel on Climate Change analysis shows that the average increase in global temperatures needs to be limited to 2°C in order to avoid potentially catastrophic effects. Meeting this target will require reducing global emissions of greenhouse gases by 50-85 percent by 2050 relative to 2000 levels. Such drastic emission reductions can only be met through decisive and immediate action by all governments.

## THE INTERNATIONAL POLITICS OF CLIMATE CHANGE

Climate change represents perhaps the greatest political challenge the world has faced to date: It is a truly global problem that requires a global solution, which in turn needs to be supported and implemented by some 192 countries to avoid free riding on a common good. The costs and benefits of curbing greenhouse gas emissions are unevenly distributed around the globe with some regions projected to benefit from a rise in temperatures while many others will lose. So fashioning such a global consensus and a true will to act is extremely complex and will require unflinching leadership from governments around the world.

The key decisions on the successor regime to the Kyoto Protocol and associated commitments, which expire in 2012, will be taken at the meeting of the Conference of Parties (COP 15) in Copenhagen in December 2009. This make-or-break event will focus on financing, technology development and transfer, as well as technical support required for climate change mitigation and adaptation. In particular it must find effective mechanisms to support the poorest and most vulnerable countries in adapting to climate change. Box 1 summarizes the upcoming negotiation events and timelines.

The main responsibility for lowering global greenhouse gas emissions rests with the developed countries who have caused the problem in the first place. Ultimately, if the 2°C climate stabilization target is to be achieved all Parties will eventually have to commit to long term emissions caps within the principles of common but differentiated responsibilities. Therefore least developed and other vulnerable countries in Africa need the full support of their G77 partners to ensure that their special needs are addressed as part of the group. African voices need to be clearly articulated and conveyed if Copenhagen is to adequately address the needs of LDCs in terms of financing, technology transfer and technical support required to adapt to climate change and seize mitigation opportunities.

## WHY DO MINISTERS OF FINANCE AND PLANNING NEED TO FOCUS ON CLIMATE CHANGE?

Climate change will affect the revenue and expenditure side of African budgets even if the world meets the ambitious greenhouse gas reduction targets required under the IPCC scenarios. Tax receipts may decline sharply from the projected fall in agricultural output, which accounts for some 60 percent of employment and 50 percent of GDP in many countries. Importantly, countries that depend largely on agriculture will experience more frequent and severe macroeconomic shocks.

On the upside, the world's response to climate change offers opportunities for governments to tap into new financing sources and access improved technologies, including the Clean Development Mechanism (CDM) under the Kyoto Protocol, planned mechanisms for sector approaches as well as reduced emissions from deforestation and degradation, private investment in renewable energy and other means to mitigate greenhouse gas emissions, as well as new climate change adaptation funds. To date these mechanisms for mobilizing additional resources have not delivered, but this can and needs to change, as outlined below.

In line with a relative weakening of agriculture and animal husbandry, the structural shift towards an urban-based economy will need to be accelerated. Concomitantly, climate change is likely to induce a long-term shift in the prices of commodities and other tradables, thus affecting Africa's terms of trade. Projections for commodity prices are notoriously unreliable, but it is widely expected that the prices for foodstuff will undergo a secular rise. At the same time, the international cost of transport could rise in response to the need to cut greenhouse gas emissions from maritime and air transport, thus increasing the cost of doing business internationally. Central Bank Governors and Ministers of Finance need to incorporate these shifts into their balance of payments projections.

## CRAFTING AN OPERATIONAL DOMESTIC RESPONSE TO CLIMATE CHANGE ADAPTATION AND MITIGATION

Since most African countries make only a very small contribution towards global emissions of greenhouse gases they must not be subject to binding emissions caps that could hamper their growth prospects. An effective response to climate change will focus on adaptation as well as mobilizing financing and technology transfer to seize mitigation opportunities that can achieve a "win-win" by promoting low-carbon technologies and advancing Africa's development aims. In some areas, such as urban transport and energy, this may allow African countries to leap-frog to more efficient technologies and avoid some of the mistakes made by other countries.

The pervasive and long-term nature of climate change will require governments to strengthen their financial planning processes to develop an effective response to the long-term challenges posed by climate change. Adaptation has been aptly described as "development under much more challenging circumstances", so a response be integrated into existing development strategies. The challenge is therefore not to launch new processes, but to address the challenge of climate change effectively within existing national planning and budgeting processes. Yet even a cursory look at a typical PRSP in Africa shows that where climate change is addressed in development strategies to date it remains largely at the level of rhetoric without a careful consideration of how long-term programming of expenditure and public revenue management have to be adapted to support countries' adaptation to climate change.

Unfortunately a lot of confusion exists about what "adaptation" means in practice, and correspondingly, the funding estimates vary widely. The MDG Africa Steering Group convened in 2007 by the UN Secretary-General has developed a practical framework for achieving the MDGs. Table 1 augments this framework by outlining key measures that African governments may consider as part of an integrated strategy for economic growth that can achieve the MDGs, support adaptation to climate change and seize mitigation opportunities. The table does not describe all interventions that may be required nor does it aim to summarize the policy challenges that governments need to tackle head on. It also does not pretend to capture the full diversity of challenges across the continent.

As outlined in Table 1 climate change adaptation priorities for most African countries center around:

- **Agriculture and animal husbandry:** By implementing the African Green Revolution countries can double food yields through the application of improved seeds and fertilizer, increase rural incomes and strengthen the resilience of communities towards climate change. Malawi and other countries have shown how much can be achieved in little time through programs that enhance access to key agricultural inputs. Yet, investing in inputs will not be enough, as increased climate volatility and changing precipitation patterns will require substantial investments in irrigation and water storage infrastructure, agricultural R&D and extension workers to avert a potentially dramatic fall in agricultural output. Importantly, some 43% of Africa is comprised of drylands where livestock rearing is the dominant source of livelihoods. These communities stand to be particularly affected by climate change and will require increased investments in water management infrastructure and forage production.

- **Water and other infrastructure:** Urgent investments are needed to improve water resource management and to avert threats to water supply for household, agricultural, as well as industrial use. Likewise, investments in energy infrastructure must consider the possible consequences of changes in precipitation patterns on hydroelectric power potential. As a top priority, urban water, power and transport infrastructure needs to be thoroughly climate-proofed.

- **Disease management and health systems:** To avert a possible expansion of infectious diseases health systems need to be strengthened and investments must be made in infectious disease control through vaccinations, residual indoor spraying and other means of vector control, and expanded access to efficacious treatment.

- **Natural resource management:** Key ecosystems such as wetlands, drylands, mangroves, forests, and lakes will be put under substantial stress by climate change. Only careful management can avoid the worst consequences and ensure the long-term sustenance of critical ecosystem services that are central to economic development and human well-being. As just one example, improved watershed management including a substantial reduction in upstream soil degradation and erosion is required across much of Africa to reap maximum benefits from investments in hydropower resources.

Critically, the IMF and other members of the MDG Africa Steering Group have concluded that the required expansion in public outlays required to finance these investments is macroeconomically and fiscally sustainable if expenditure and financing from domestic and external sources are all anchored in a predictable medium-term expenditure framework. Existing financing commitments pledged by African government and development partners – if fully implemented – will go a long way towards meeting the need. The negotiations leading up to Copenhagen provide an important opportunity to recall the need to meet existing commitments. The temptation to negotiate new promises at the expense of undoing past commitments that have yet to be implemented ought to be resisted.

Climate change mitigation is first and foremost the responsibility of developed and emerging markets that dominate global emissions of greenhouse gases. But there is substantial potential to invest in low carbon opportunities in

Africa that are affordable and fully consistent with long-term development needs. In particular, African countries stand to attract international finance through reduced emissions from deforestation and degradation (REDD). Investments in low-carbon technologies can also attract additional financing. Yet for this to happen on a large scale, policies – particularly in the energy sector – and land management practices must be improved.

Countries that have not already done so should put in place competitive feed-in tariffs for renewable power, such as hydro, wind, solar, and biomass, as well as legislation supporting Independent Power Producers (IPPs). Such programs are particularly important in view of the continent's relatively poor power transmission infrastructure. They can support the development of decentralized power generation facilities with the potential to sharply increase electrification rates and power availability in rural areas.

As an overarching challenge many countries also need to further improve transparency and accountability for the use of domestic and external resources. The latter of course is a key requirement to increase access to more development finance.

## PRACTICAL STEPS NEEDED IN 2009 TO ADDRESS THE CLIMATE CRISIS

African governments need to define the specific steps they expect the international community and development partners to agree to during 2009. Urgent action is required across three areas over the course of the next nine months to launch an effective international response to climate change.

### 1. Ensure that international climate negotiations address Africa's needs

The year 2009 is a make-or-break year for global efforts to combat climate change. Until the middle of 2009 the international negotiations have edged forward slowly, but this is likely to change as the large countries converge around a shared set of objectives. Africa risks being sidelined in these negotiations because many agreements will be struck bilaterally between developed countries and large developing countries. Africa should therefore use the full force of its 54 votes at the UNFCCC and the court of world opinion to press five key points:

- **Clear emission targets:** Developed and the large middle-income countries must sign on to binding emissions targets using the principle of common but differentiated responsibilities. Developed Annex I countries must reduce their emissions by 80-95 percent relative to 2000 levels by 2050, which in turn requires a reduction of 25-40 percent by 2020. Those developed countries whose commitments fall short must be reminded of their responsibility to act. In addition middle-income countries need to decelerate the growth of their greenhouse gas emissions by some 15-30 percent relative to a business as usual scenario – perhaps as nationally appropriate mitigation actions (NAMAs). In view of their small contributions to climate change to date, most African countries should not be subject to a binding emissions cap or efficiency targets.

- **Admissibility of African carbon offsets to meet rich countries obligations:** African carbon offsets, such as the credits generated under the CDM or a separate mechanism for Reduced Emissions from Deforestation and Forest Degradation (REDD), must be admitted for compliance purposes in all cap-and-trade emissions trading schemes set up by developed countries. Where policy discretion is exercised in admitting offsets from specific countries, as seems likely in the US, African Embassies need to lobby for the admissibility of all African carbon offsets without any discounting.

- **Adaptation fund:** Developed countries must live up to their commitment to provide new and additional funding for climate change adaptation. A large number of funds have been set up, but they are mostly under resourced. As a central priority, the agreement reached in Copenhagen must provide for sufficient funding for adaptation in the least developed countries. In particular, the Adaptation Fund, which was set up in 2002 and is administered by the Global Environment Facility, but has yet to disburse any funds, must at last become operational and provide priority funding for infrastructure and agriculture on the continent with a particular focus on regional infrastructure needs.

- **Implementation of existing development finance commitments:** Developed countries have to honor the commitments they have made in support of achieving the MDGs and other development objectives. The MDG Africa Steering Group lays out the most pressing needs for investment and shows how existing commitments can be implemented. Developed countries have pledged $72 billion in annual assistance to Africa by 2010, but are not on track towards meeting this commitment. Countries need to insist during 2009 that the welcome focus on climate change and the effects of the financial crisis do not divert resources from building a foundation for sustained economic growth in Africa, which in turn will enhance resilience to climate change.

- Just as important as financing commitments are the mechanisms through which these commitments are realized. Instead of negotiating short-term programs with a large number of bilateral partners and funds, African governments need access to a limited number of thematically or sectorally focused financing mechanisms that (i) reduce the otherwise high transaction costs that derive from dealing with large numbers of development partners, (ii) are truly scalable to mobilize the necessary resources and deliver the promised financing, (iii) consolidate lessons learnt and sectoral expertise to support line ministries in the design and implementation of scaling-up strategies, and (iv) urge not only governments but also development partners to honor commitments made.

- **Minimum 8-year post-Kyoto commitment period:** Shifting towards a low-carbon economy requires predictable long-term incentives for private and public investors alike. To effectively support long-term investments, the post-Kyoto commitment period should align with long project finance cycles and be as long as possible - at least until 2020, preferably through to 2030.

## 2. Launch a Global Green New Deal and develop high-visibility mitigation projects

To sustain global demand in the face of a withering financial crisis, governments around the world are launching massive fiscal stimulus programs amounting to a staggering $5,000 billion according to the 2 April 2009 statement by the G20. These funds must be invested wisely to support a Global Green New Deal that supports the shift towards a low-carbon economy in rich countries and promotes the wide-spread adoption of energy-saving technologies worldwide. African countries should press the international community to provide financing for large-scale renewable energy projects across the continent. Key technologies that can be deployed at substantial scale and for which "shovel-ready" projects exist include:

- **Hydropower:** As part of a Global Green New Deal, developed countries should provide additional financing to African governments to build several hundred MW of hydropower by 2015. Of particular importance are hydropower projects situated on shared watersheds, which can be launched through international finance. This funding can be channeled through the African Development Bank or the World Bank's International Development Association (IDA).

- **Small-scale biomass:** Africa has an abundance of biomass that can be converted into power, generate fertilizer as well as process heat to drive cold chain infrastructure or other applications. A global climate agreement in Copenhagen should therefore comprise the commitment to allocate some €500 million through the World Bank or the African Development Bank to invest in small-scale renewable power plants and to set up the facilities that can replicate these projects on a large scale.

- **Wind power:** By co-financing wind power projects in Africa developed countries will help lower greenhouse gas emissions and provide indirect support to turbine manufacturers and engineering service providers who tend to be based in Europe.

- **Solar thermal power:** North Africa, the Sahel, and parts of Southern Africa have substantial potential for solar thermal power. As part of the EU Mediterranean green power initiative, two solar thermal power plants with at least 50MW capacity each should be launched in the Sahel over the next four years to demonstrate the feasibility of this technology in Africa and lay the foundation for large-scale replication.

- **Geothermal power:** The Rift Valley and parts of Central Africa can generate substantial amounts of geothermal potential using well established technologies. A key objective of international climate change negotiations should be to promote the development of geothermal power in Africa along the lines of the successful programs undertaken currently in Indonesia and the Philippines.

Governments have already prepared costed infrastructure plans that cover "shovel-ready" renewable energy and other core infrastructure projects. Moreover, the African Development Bank, the Regional Economic Commissions, as well as the World Bank have developed detailed project proposals to address regional infrastructure needs, such as large-scale power plants, international transmission lines, road and rail networks. All of these projects can be launched as soon as financing is available and can form a key element of international effort to boost global demand in response to the financial crisis.

## 3. Fix the CDM, operationalize REDD, and move towards large-scale programs

The CDM has developed into a roughly $6.5 billion market, but it has not fulfilled its potential for mobilizing development finance and technology transfer for Africa. In particular, the CDM fails to promote land use projects including forestry and agriculture. Several practical steps can and should be taken to make the CDM and REDD work for Africa.

- **Effective domestic CDM institutions:** African Designated National Authorities (DNAs) often have limited capacity compared with their counterparts in Asia and Latin America. Drawing on expertise and funding available from UNDP, UNEP, UNFCCC, the World Bank carbon funds, and other development partners, the capacity of African DNAs needs to be strengthened.

- **Simplified the CDM rules and removal of bias against African projects:** To mobilize more CDM finance for Africa, the CDM must (i) establish generic and transparent sector emission baselines that are simple to use and do not penalize Africa for its low emissions; and (ii) shift towards sector and technology additionality benchmarks that obviate the need for project-level additionality tests by the Executive Board of the CDM.

- **Effective REDD mechanism and expanded range of project eligible under the CDM:** A post-2012 CDM must (i) admit Reduced Emissions resulting from Deforestation and Forest Degradation (REDD) – possibly as a stand-alone framework; (ii) broaden the definition of afforestation and reforestation to include agroforestry, assisted natural regeneration, forest rehabilitation, forest gardens, and improved forest fallow projects; and (iii) admit biofuels from algae, cellulosic biomass and other sources that do not compete with food production.

- **Programmatic CDM or sector approaches:** The most important reform of the CDM is to move away from subjecting every single project to a long approval process by shifting towards sector or "programmatic" CDM. This approach promises to drastically cut transaction costs, reduce uncertainty and shorten the time it takes for each project to generate carbon credits. Yet the existing rules for such Programmes of Activities (PoA) must be streamlined if PoAs are to be applied widely, particularly in Africa.

- **Consistent long-term CDM and REDD frameworks for African offsets:** Public and private investors in low-carbon projects and infrastructure require clear long-term incentives. The CDM and REDD mechanism should therefore be extended at least for another 8 years through to 2020. In view of the special constraints faced by countries they can request that CDM and REDD credits generated by African projects registered before 2020 should be eligible for Certified Emission Reductions under the CDM or equivalent REDD credits until at least 2030.

- **Upfront payments for carbon credits through dedicated guarantees:** CDM and REDD revenues generated by an African project may only accrue some 12-24 months after the beginning of construction and therefore do not contribute to the capital cost of a project. With the support of the World Bank or African Development Bank, prepayments on future carbon credits should be made available to African project developers. To this end African governments may request these International Financial Institutions and other development partners to develop dedicated financing windows to back upfront payments for CDM and REDD projects originated in Africa.

- **Expanded range of project eligible under the CDM:** A post-2012 CDM must (i) admit Reduced Emissions resulting from Deforestation and Forest Degradation (REDD) – possibly as a stand-alone framework; (ii) broaden the definition of afforestation and reforestation to include agroforestry, assisted natural regeneration, forest rehabilitation, forest gardens, and improved forest fallow projects; and (iii) admit biofuels from algae, cellulosic biomass and other sources that do not compete with food production.

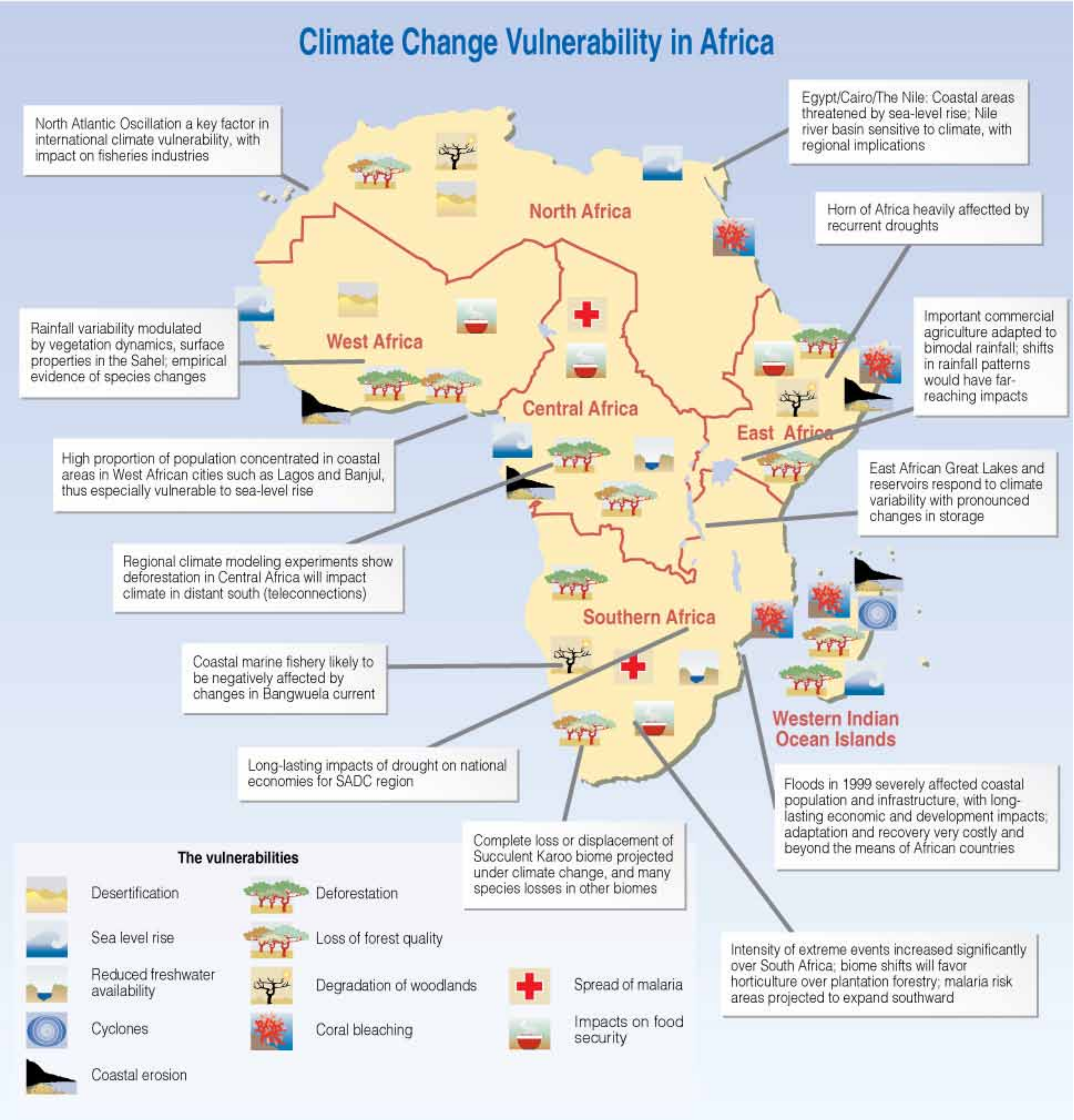
## A ROADMAP FOR MAKING COPENHAGEN A SUCCESS FOR AFRICA

Success in Copenhagen requires the special needs of LDCs to be recognized and for them to develop and push a concerted negotiating position, supported by Africa as a whole. In each country, the Head of State or Government and Ministers of Finance, Planning and the Environment need to collaborate to formulate and adopt a practical strategy position for Copenhagen. The issues confronting African countries in dealing with climate change are too broad and too important to be left solely to Ministries of the Environment who recently convened under the aegis of the African Ministerial Conference of the Environment (AMCEN) in Nairobi to agree on a negotiating position for Copenhagen.

At the July AU Summit African Heads of State and Government may adopt a position on Copenhagen including clear objectives for the remaining negotiations. The timing for the Summit is propitious as it will allow the deliberations to be informed by the preliminary outcomes of the UNFCC negotiations and the international politics around climate change before negotiations enter the final and critical phase. A clear statement by the AU Summit on Copenhagen will help articulate Africa's position towards the world.

Following the AU Summit African governments will need to ensure that the G77 and China position reflects the special needs of LDCs. The high-level meetings scheduled for the second half of 2009 provide ideal opportunities to generate maximum buy-in from other countries for such a position. Throughout, African leaders can use their influence to draw the world's attention to the issues.

A high degree of executive political leadership will be required to ensure the necessary coordination within and across African governments, formulate a clear position, and use all available levers to generate maximum international support for this position. Success will necessitate a major effort that needs to be sustained over many months. The stakes are high and the need for African leadership with practical ideas is unprecedented. Without it the outcomes of Copenhagen will be shaped in the capitals outside Africa and will therefore fail to address the special needs of the continent.




SOURCE: UNEP / GRID

**Table 1: African opportunities for scaling-up proven interventions to achieve the MDGs and responding to climate change (based on Ki-moon et al. 2008) (1)**

| Scaling-up Opportunity | Summary of Key MDG Results identified by MDG Africa Steering Group | Critical Incremental Measures to Address Climate Change | Key Multilateral Financing Mechanisms | Estimated Public External Financing Needs by 2010 (2) |
|---|---|---|---|---|
| Agricultural Productivity & Biodiversity Conservation | Launch the African Green Revolution through the CAADP framework:<br>* Doubling of food yields by 2012<br>* Transformation to commercial agriculture<br>* Strengthened agricultural research in Africa | **Adaptation**:<br>* Promote rainwater harvesting and expand water storage to respond to greater inter- and intra-annual variability in rainfall<br>* Invest in agricultural research to develop drought/temperature resistant crops and farming techniques.<br>* Strengthen agricultural extension to support shift towards<br>**Mitigation**:<br>* Promote agroforestry, zero tillage and other means to increase soil carbon content<br>* Slow deforestation through improved forestry management, intensification of agriculture | All available bilateral and multilateral financing mechanisms<br><br>Global Environment Facility (GEF) | US$ 8bn p.a.<br><br>(investments in water storage and other infrastructure are covered below.<br>No robust estimates are available for the incremental resources required to slow deforestation in Africa) |
| Nutrition & School Feeding Programs | Eliminate stunting and chronic malnutrition:<br>* Universal access to critical micronutrients<br>* Comprehensive school feeding<br>* De-worming | **Adaptation**:<br>* Prioritize school feeding programs in marginal areas affected by climate change to avert nutritional deficiencies and create long-term demand for agricultural production sourced from local farmers | UNICEF, World Food Programme | US$ 4bn p.a. |
| Education | Meet Education for All Goals and implement Plan of Action for Second Decade on Education:<br>* Comprehensive early childhood care<br>* Universal primary education<br>* 50 per cent improvement in adult literacy<br>* Gender equality in education<br>* High-quality education<br>* Expanded secondary, vocational and higher education | | Education for All Fast Track Initiative | US$ 8.3bn p.a. |
| Health Systems, Child Survival, Maternal Health | Build effective primary health systems:<br>* Comprehensive primary health systems that meet demand and supply-side constraints<br>* Adequate human resources for health, including paid community health workers<br>* Universal access to immunization and key child survival interventions<br>* Universal access to emergency obstetrical care, skilled birth attendants & other reproductive health services | | Global Fund to Fight AIDS, TB and Malaria, health systems window & GAVI Alliance health systems window | US$ 10bn p.a. |

| | | | | |
|---|---|---|---|---|
| Family Planning | Access to universal Family Planning | | UNFPA | US$ 1bn p.a. |
| Vertical Disease Control Programs | Comprehensive control of AIDS, TB, Malaria and Neglected Tropical Diseases (NTDs), e.g.:<br>* Effective HIV prevention and universal access to AIDS treatment by 2010<br>* Malaria burden halved by 2010 (from 2000 levels) and malaria mortality reduction to near zero by 2015<br>* Control of TB through implementation of Global Stop TB Plan of Action<br>* Sharply reduced morbidity and mortality from NTDs | **Adaptation**:<br>* In anticipation of spread of vector-borne diseases expand control measures (e.g. vaccination, bednets, residual indoor spraying) | Global Fund to Fight AIDS, TB and Malaria | Total US$ 17 billion, o/w:<br>* HIV/AIDS: US$ 12bn p.a.<br>* Malaria: US$ 2.4bn p.a.<br>* TB: US$ 2.0bn p.a.<br>* NTDs: US$ 0.5–1.0bn p.a.<br><br>(in some areas public expenditure on control and treatment of emerging diseases will need to be increased within overall resource envelope) |
| Infrastructure and Trade Facilitation | Adequate connectivity and infrastructure to increase productivity, ensure low-cost service delivery, and integrate African countries into the global economy, e.g.:<br>* Effective regional networks for roads, rail, canals, power pools, ICT<br>* Halve proportion of people without access to adequate water supply and sanitation<br>* Adequate rural and urban electrification and access to other modern energy services<br>* Adequate transport grids, including major expansion of rural feeder roads<br>* Adequate institutions to promote trade facilitation across Africa | **Adaptation:**<br>* Promote rainwater harvesting & expand irrigation and water storage infrastructure for agricultural use and human consumption<br>* Improve flood defences and storm drainage infrastructure in low-lying coastal areas<br>**Mitigation**:<br>* Develop renewable energy generation capacity (wind, hydro, biomass, geothermal, solar), including highly distributed small-scale applications<br>* Introduce combined cycle systems and other energy efficiency measures<br>* Promote shift towards efficient cook stoves using renewable energy sources<br>* Promote rapid bus and other low-cost public transport systems | World Bank-AfDB-EC led consortium facilitated by Infrastructure Consortium for Africa (ICA)<br><br>AfDB's Rural Water Supply and Sanitation Initiative<br><br>Climate change adaptation funds (see text) | Total US$ 23.7bn p.a., o/w:<br>* Energy: US$ 11.5bn p.a.<br>* Transport: US$ 5.4bn p.a.<br>* Water & Sanitation: US$ 5.8bn p.a.<br>* Irrigation: US$ 0.8bn p.a.<br>* ICT: no public external finance needs<br>* Trade facilitation: at least US$ 0.2bn p.a.<br><br>(Figures assume least-cost approach to building power infrastructure. Investment needs will rise substantially if more costly renewable power sources are to be tapped.<br>Cost of flood protection infrastructure not included.) |
| Statistics | Implementation of National Strategies for the Development of Statistics (NSDS):<br>* Successful 2010 census round<br>* Comprehensive vital registration<br>* Harmonization of statistics across Africa | | PARIS21 can syndicate | Some US$ 0.25bn p.a. |
| Achieving the MDGs in Africa & responding to climate change | Comprehensive cross-sector public expenditure programmes against clear quantitative targets | Full integration of climate change adaptation and mitigation measures in national development strategies. | All multilateral, bilateral, private mechanisms providing high-quality, predictable financing. | Some US$ 72bn p.a., o/w US$ 62bn (in 2007 terms) from DAC members (as per Gleneagles and, inter alia, Monterrey Consensus and EU ODA targets); with additional financing from non-DAC donors; South-South collaboration; private foundations and innovative private co-financing. |

(1) Ki-moon et al. (2008) provides a detailed description of the interventions and investments required to achieve these key results.
(2) As estimated by the MDG Africa Steering Group (Ki-moon et al. 2008). Where substantial incremental resources are required these are identified in this column.

***The APP promotes Africa's development by tracking progress, drawing attention to opportunities and catalyzing action.***




**Africa Progress Panel**
Rue de Varembé 9-11
1202 Geneva
Switzerland
www.africaprogresspanel.org

*This document was printed on recycled paper.*