



# Seventh African Development Forum

*Acting on Climate Change for Sustainable  
Development in Africa*

Private sector response to  
climate change

*Issues Paper #11*

ADF VII • 10 - 15 October 2010 • United Nations Conference Centre • Addis Ababa, Ethiopia



African Union



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## **I. Overview**

1. There is strong evidence from the scientific community that climate change will have a disproportionately major effect on socio-economic development in Africa. The average cost of climate change to African economies could be equivalent to 1.5 to 3 per cent of GDP by 2030 and rising. Climate change is not only a threat to the achievement of sustainable development and poverty reduction in the continent, it has the potential to undo the modest gains the continent has achieved towards attaining the Millennium Development Goals (MDGs). Responding to climate change requires the participation of all stakeholders, including governments and the private sector. Recent reports show that climate change now ranks highly in executive decisions and acts as a shaping force in investment design, including identifying and allocating risk, and ensuring sound procurement practices. However, in developing countries, especially in Africa, the much needed resources and governance structure for executing requisite mitigation and adaptation measures at scale are still grossly inadequate.

2. Alleviating the negative impacts of climate change and maximizing the potential opportunities it creates through low carbon economic growth require broad institutional and fiscal reform and increased financial commitments through a joint governments - private sector effort. Indeed, no single option for resource flow is able to meet the demands effectively on its own. The United Nations Environment Programme and a global partnership of investors and insurance companies have estimated that investments of about \$500 billion per annum<sup>1</sup> will be required by developing countries to adapt to climate change and embark on a low-carbon development pathway. In addition, a large portion of this amount will come from the private sector, and can only be utilized efficiently if adequate public policies and governance structures are in place. The United Nations Framework Convention on Climate Change (UNFCCC)<sup>2</sup> estimated that the private sector will account for 86 per cent of the financial flows required to address climate change mitigation and adaptation. Therefore, effective partnerships with the private sector have been increasingly recognized as a basis for overcoming present barriers that restrict capital flows into the sectors that support climate change mitigation and adaptation. This underlines the main ethos of the UNFCCC Private Sector Initiative, which calls for effective engagement in the wider adaptation community, as a means to support mitigation and adaptation to climate change in a coherent and integrated manner.

## **II. Areas for private sector engagement**

3. The two actions, as identified by UNFCCC, to respond to climate change are mitigation<sup>3</sup> and adaptation<sup>4</sup>. The implementation of these approaches has an impact on the way business is done overall. For Africa especially, it is pertinent that these are imbibed in development projects and programmes to ensure that climate-compatible development is achieved on the continent.

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1 UNEP – Climate Neutral Network

2 UNFCCC-Investment and Financial Flows to Address Climate Change

3 Climate change mitigation refers to (1) the reduction of Greenhouse Gases (GHG) emissions from sources, such as power plants where fossil fuels are burned, and (2) the enhancement of “sinks and reservoirs” such as forests that store CO<sub>2</sub>.

4 Adaptation to climate change refers to reducing the vulnerability of people and the environment to climate change impacts. Adaptation measures are typically classified as “soft”, .e.g., policies or “hard”, e.g., actions to protect homes from hurricanes.

4. The private sector is increasingly aware of climate change risks in general, and seeks solutions to them. Specific areas for intervention in Africa include: prospects for innovation, market penetration, technology transfer and capacity enhancement.

## Mitigation

5. Greenhouse gas (GHG) reduction opportunities in Africa are found in sustainable land and forest management, clean energy use and expansion (such as for hydropower, geothermal, solar and wind)<sup>5</sup>, and the creation of sustainable urban transport systems. Demand for energy and transportation is growing rapidly in many African countries. The investment that takes place in the next two decades could lock in very high emissions for the next half century or present an opportunity to move the continent on a green growth trajectory. Investment in energy efficiency can reduce demand growth, and low-carbon technologies can further reduce the impact on climate change.

6. **Innovation and market penetration:** Application of newly developed climate-friendly technologies plays a key role in reducing the energy intensity of production in developed countries. Enhanced participation from the private sector is required for the technological innovations that will support a low-carbon growth path for Africa. Home-grown technologies designed by Africans, specifically adapted to the unique conditions of the continent, should be exploited. Those that have gone through the demonstration phase should be assisted through the “valley of death” into the commercialization phase. Increased research and development programmes alongside academia are also required.

7. **Technology transfer and capacity enhancement:** Technology transfer encompasses more than just physical movement of equipment. It also involves transfer of requisite skills and know-how for operation and maintenance, including knowledge, expertise and experience for generating further innovation. The private sector drives significant transfers of relevant technologies through markets, joint ventures, foreign direct investments and within policy frameworks such as the Clean Development Mechanism (CDM). Joint ventures and licensing are common entry vehicles for investment in emerging markets. They are an effective long-term route for embedding local African firms into the learning network of transnational companies.

8. **The carbon markets:** The carbon market has been identified as the main private sector financing source for mitigating climate change impacts. In 2009, the market grew to \$144 billion, an increase of six per cent in comparison to 2008, despite the financial crises. This implies that Africa can no longer afford to lag behind in this huge market. Opportunities for scaling up participation still exist. Recently, Africa, which has traditionally been a low recipient of carbon finance, increased its share from about three to seven per cent by the end of 2009. Estimates based on the CDM pipeline in the first half of 2010 show that the number of CDM projects in Africa could total around 245 by the end of 2012. It is also estimated that by 2012<sup>6</sup>, and with the price of carbon at about \$13 a tonne, these could be worth over \$475 million. Currently, there are 122 CDM projects in Africa that are either registered or in the pipeline for validation or registration. This is up from 116 in 2009, 75 in 2008 and a mere 42 in 2007.

9. Thus far in Africa, private investments have surpassed public funding in terms of project-based mechanisms in the carbon markets. Prospects for scaling up lie in the enhancement of capacities of local financial and banking sectors, potential investors and the private sector as a whole. However, with

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5 The hydropower potential of the continent is estimated at 15 per cent of the world's total. However only about 7.6 per cent of the economically-feasible hydropower potential is currently being exploited. The geothermal energy potential is 9000MW, only 60MW of which has been exploited in Kenya and Ethiopia.

6 UNEP – Carbon Markets in Africa Moving Forward

the political uncertainty under the international climate negotiations as to the exact nature of the post-2012 framework, strong impetus is needed to keep private sector flows in CDM-related projects. The European Union Emissions Trading Scheme (EU ETS), which is the engine of the carbon markets and worth about \$118.5 billion, provides some reprieve. Certified Emission Reductions (CERs) generated in Least Developed Countries (LDCs), will be admissible for compliance within the EU ETS until 2020. All the same, the general market risk surrounding the post-2012 uncertainty should be addressed to keep market momentum and ensure continued engagement of potential investors, particularly in Africa. Relevant stakeholders should mobilize their efforts to engage forces in the public and private spheres.

## **Adaptation**

10. For most African countries, adaptation is fundamentally about sound, resilient development. Key focus areas include disaster risk reduction; sustainable land, water, and forest management; coastal and urban development; watershed management; increased agricultural productivity; health and social issues. Adaptation for the agriculture sector is clearly necessary because of the direct impact of weather on agriculture. Likewise, industry, particularly long-lived infrastructure, will be forced to adapt to the effects of a changing climate. Yet, so far, in-depth knowledge of adaptation options within the private sector is limited and would benefit immensely from further research. While short-term options may remain limited, **the private sector can be an important contributor to shaping sector programmes and the research agenda**, so as to promote improved knowledge and analytical tools for businesses and investors. Some of the opportunities for interventions are stated below.

11. **Information services:** investment in reliable information is fundamental to good natural resource management. For example, it has been reported that flood warnings can reduce damage by up to 35 per cent. Local data collection helps build the knowledge bank of information necessary for robust decision-making. Africa is in dire need of better monitoring and forecasting systems. According to the World Meteorological Organization (WMO), the continent has only one weather station per 26,000 sq km - one-eighth the recommended minimum. The Climate for Development in Africa (Climdev-Africa) programme, jointly supported by the African Development Bank, the Africa Union Commission and the United Nations Economic Commission for Africa, is one such initiative on the continent seeking to address this problem. Early warning research currently provides the context of technological advances in areas such as computer modelling, remote sensing, and decision support systems that offer tremendous opportunities for business applications.

12. **Risk management:** This involves risk awareness, identification and decision-making analysis. A focus on disaster risk reduction as opposed to response only, is a significant shift in the bid to address the negative impacts of a changing climate. Monitoring and surveillance of potential hazards through satellite-based systems creates opportunities for private sector involvement through the development of technologies etc. Overall, promoting climate-responsive risk management enhances special ways of doing business in the private sector, with a view to fostering risk-responsive business practices. These include emphasizing business continuity planning and processing, adopting partnership approaches and contributing to communities in enhanced corporate social responsibility initiatives.

13. **Insurance protection:** Several insurance companies are partnering with climate and development experts on insurance as a climate change adaptation strategy to protect against energy, food and water shortages. Local-scale monitoring and research programmes are highly essential for informing the creation of index-based insurance products. As agricultural risks often overlies extensively with climate risks, the agriculture industry is a typical test arena for index-insurance products. Insurance

against impacts of climate change in developing countries, especially in Africa, is still an untapped market for many insurance companies.

### III. Options for scaling up private sector engagement

14. National action and international cooperation can support climate compatible development by creating an enabling environment for investment and using innovative financing instruments to leverage private sector financing.

15. **Improving the enabling environment for investment:** There are a number of domestic barriers to investment in and market penetration of clean technologies in Africa. The scale of these barriers vary between countries, depending on whether the country is middle or low-income, the state of the financial sector, existing regulations and policy, and the availability of natural resources. Governments need to ensure a conducive investment climate to spur private sector engagement. Many African economies are already reforming their various sectors, introducing policies for sustainable transport and supporting national objectives for energy security and environmental protection. This has been an integral part of a new climate change and development paradigm that shifts the focus away from sole emphasis on supporting technology demonstration projects to establishing a more conducive environment and institutional milieu for promoting greater private sector investment in environmentally and climate-friendly technologies and practices.

16. South Africa is a good example of a country that is developing along these lines. It has established its Long Term Mitigating Scenarios (LTMS) plan and announced that it is prepared to cut emission growth to 34 per cent below current expected levels by 2020 and 42 per cent by 2025. These objectives are supported by a wide range of policies, including the use of Renewable Energy Feed in Tariffs (RE-FITS) which encourages private sector development in renewable energy and supports South Africa's goal of producing four per cent of the country's electricity supply (about 10,000 GWh) from renewable energy sources by 2013<sup>7</sup>. It comes as no surprise that South Africa has the highest number of CDM projects on the continent. The CDM, as mentioned above, is one such channel for private sector participation in financing low-carbon technologies.

### IV. Enhancing the role of public finance mechanisms to scale up private investment in climate solutions

17. A key challenge for governments is designing policies that effectively leverage private capital and know-how to deliver effective modalities and instruments to address climate change at the scale and pace needed. In this context, the role of Public Finance Mechanisms (PFMs) cannot be overemphasized. Altering the risk-reward balance of private sector investment via public financial commitments in terms of grants, concessional finance, and risk mitigation instruments would enhance both the supply of private finance for low-carbon projects and increase the demand for private finance in climate solutions. To be effective in terms of allocation of resources of both public and private sector in an optimal way, the design of PFM should be based on an in-depth analysis that puts enough emphasis on

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<sup>7</sup> Eskom Renewable Energy Investment Project Concept Note – African Development Bank



crowding in and crowding out relationships between public and private investments in climate change solutions.

18. **Using innovative financing instruments:** There are various ways in which private finance can support mitigation and adaptation. Debt, in particular, can be used as an enabling instrument for both publicly and privately-initiated investments, including direct project lending and lines of credit to local finance institutions. However, to reach the poor in a more meaningful manner, financing will need to be delivered in new ways, including through microfinance and other innovative products.

19. **Guarantee instruments** - enable local financial institutions to offer financing at sufficient maturities for clean energy and other climate-friendly investments. Examples include:

- a) *Partial Risk Guarantees (PRGs)* - Cover against risk of a government (or State-Owned Entities) failing to perform contractual obligations with respect to a private project;
- b) *Multilateral Investment Guarantee Agency (MIGA)* - is a member of the World Bank Group which provides guarantees against non-commercial risks and can be used to facilitate foreign direct investments in greener infrastructure projects in Africa. Risks covered include host-country political risks such as regulatory decisions by government that could affect project operations. An example is the Bujagali hydropower project in Uganda. MIGA was able to cover key investor risks such as breach of contract, interconnection (Umeme), hydrology and force majeure, thus rendering the project bankable.

20. **Bonds** –These provide a secondary risk market. A few multilateral institutions have established green bonds as a means of raising private finance from capital markets. For example, the African Development Bank recently issued three “Clean Energy Bonds”. These bonds specifically target investors that are interested in supporting clean energy solutions in Africa as stipulated by its Clean Energy Investment Framework. The inaugural bond which was issued in the first quarter of 2010 is denominated in New Zealand dollars (NZD) – 109 million i.e. about US\$ 77 million.

## V. Conclusions and Recommendations

21. Immense effort and progress are currently being made to address the climate change challenge in Africa. For this to move at an accelerated pace, the private and public sector should work hand in hand. Policies that overcome key risks and thereby decrease capital costs for climate-friendly investments need to be formulated. Substantial effort, creativity, and capacity will be required for carbon finance mechanisms, along with other policy and finance instruments, to address the urgency and scale of the climate challenge on the continent.

22. Time-scale issues should be addressed, as private sector interests require detailed science from climate models that fit regional needs and are of time scales that are essential for business decision makers. Decision information sets and tools can help with private sector responses to climate change.

23. There should be continuous awareness of the significant role of the private sector in addressing climate change risks to investment and business opportunities in mitigation and adaptation. Key public and private organizations and institutions should play a strategic role in sharing knowledge, experiences and expertise in this field.

