AFRICAN DEVELOPMENT BANK GROUP

CLIMATE CHANGE ACTION PLAN 2011-2015

Quality Assurance and Results Department (ORQR)
Compliance and Safeguards Division (ORQR.3)

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ABBREVIATIONS

ACF	Africa Carbon Facility
ADF	African Development Fund
AFCR	African Food Crisis Response
AfDB	African Development Bank
AGF	Africa Green Fund
AUC	African Union Commission
AWF	African Water Facility
AWM	Agricultural Water Management
CAN	Climate Action Network
CBFF	Congo Basin Forest Fund
CCAP	Climate Change Action Plan
CCCC	Climate Change Coordination Committee
CDM	Clean Development Mechanism
CE	Clean Energy
CEIF	Clean Energy Investment Framework
CIDA	Canadian International Development Agency
CIF	Climate Investment Funds
ClimDev-Africa	Climate for Development in Africa Program
CRMA	Climate Risk Management and Adaptation Strategy
CSP	Concentrating Solar Power
CTF	Clean Technology Fund
DfID	Department for International Development (UK)
DGIS	Directorate-General for International Cooperation (Netherlands)
ECA	Economic Commission for Africa
EE	Energy Efficiency
EMENA	Europe, Middle East and North Africa
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environmental Facility
GHG	Greenhouse Gas
IEC	Information and Education Communication
IFAD	International Fund for Agricultural Development
IPCC	Intergovernmental Panel on Climate Change
IPP	Independent Power Producer
IPPF	Infrastructure Project Preparation Facility
IWRM	Integrated Water Resources Management
LDC	Least Developed Country
MDB	Multilateral Development Bank
MDG	Millennium Development Goals
MTS	Medium-Term Strategy

NAMA	Nationally Appropriate Mitigation Actions
NAPA	National Adaptation Programmes of Action
NEPAD	New Partnership for Africa's Development
OITC	AfDB Transport and Telecommunications Department
ONEC	AfDB Energy, Environment and Climate Change Department
ONRI	AfDB NEPAD and Regional Integration Department
OPSM	AfDB Private Sector Department
ORQR	AfDB Quality Assurance and Results Department
OSAN	AfDB Agriculture and Agro-industry Department
OSS	Observatoire du Sahara et du Sahel
OWAS	AfDB Water and Sanitation Department
PPCR	Pilot Program on Climate Resilience
RCMRD	Regional Centre for Mapping of Resources for Development
REC	Regional Economic Community
REDD	Reducing Emissions from Deforestation and Degradation
RISP	Regional Integration Strategy Paper
RMC	Regional Member Country
RWSS	Rural Water Supply and Sanitation Initiative
SEFA	Sustainable Energy Fund for Africa
SIDA	Swedish International Development Agency
UNDP	United Nations Development Program
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forest Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WMO	World Meteorological Organization

EXECUTIVE SUMMARY

When a herder whose livelihood depends on his animals explains that 75% of his herd has been killed by drought and the remaining 25% of his animals decimated by floods, the human dimension of climate change becomes starkly clear on a continent where economies depend largely on rain-fed agriculture and where growing numbers of increasingly severe floods and droughts threaten production and food security. Climate change is depleting Africa's renewable natural land, water, and forest resources. The impact of climate change is further aggravated by fast population growth in Africa, resulting in an increasing demand on natural resources. Growing water scarcity, particularly on a continent where many water bodies cross national boundaries, raises the spectrum of further conflict. Where soil fertility is being diminished, forests are being cleared to expand agriculture; where agriculture is less productive, the attraction of urban centers increases. When urban density expands more quickly than social services and infrastructure (water, sanitation, waste management), poverty and disease rather than prosperity will result. The prospects for prosperity are being dimmed for the millions of Africans who live on less than $2 a day.

Climate change is a development challenge. It is changing the development paradigm and generating high costs. In Africa, which contributes relatively low greenhouse gas (GHG) emissions and where rain-fed agriculture is the backbone of most economies, the consequences of frequent, severe droughts and flooding are serious enough to jeopardize development efforts and to undermine the progress made to date. Poor agricultural production, coupled with rising food costs, also raises the specter of food shortages. Together with dwindling water resources, this casts a long shadow on the prospects of most Africans. The economic costs of climate change in Africa are estimated to be equivalent to 1.5-3% of Africa's annual GDP through 2030, a figure that is much higher than for other regions in the world (Stockholm Environment Institute, 2009).

The African Development Bank has designed a Climate Change Action Plan (CCAP) for 2011-2015 to support its Regional Member Countries (RMCs) adapt to climate change and mitigate its effects while supporting the Bank's focus on infrastructure development and regional operations. The CCAP is organized around three pillars -- Low Carbon Development, Climate Resilient Development and Funding Platform -- to help African countries strengthen their capacity to respond to climate change and to mobilize resources from existing and proposed sources of climate finance, the private sector and market mechanisms. The CCAP also includes advisory services, support to policy reform, knowledge generation and competency building that cut across all programs (Box 1). The CCAP is consistent with existing Bank strategies and it takes into account the issues included in the Bank's Long Term Strategy under development, especially on green growth.

The Bank plans to invest up to 6 billion UA between 2011 and 2015 to reach the CCAP targets. The resources are expected to be drawn from ADF-12 and the sixth General Capital Increase, bilateral trust funds and existing or new Climate Finance instruments, including the Climate Investment Funds (CIF), the Global Environmental Facility (GEF), the Congo Basin Forest Fund (CBFF) and the ClimDev-Africa Special Fund. The Bank has the opportunity to further expand its investments through a more streamlined and efficient use of its existing facilities.

Current funding from the United Nations Framework Convention on Climate Change (UNFCCC), as well as from other sources, is generally reported to be very inadequate for Africa's actual needs. Of all global climate funds disbursed in the past 4 years, Africa's share was 12%, or about $700 million for all project funding. Also, this funding relies primarily on voluntary contributions; there is an enormous gap between the funds required and those made available for Africa. The requirements to address adaptation are estimated at $10-$20 billion, yet only between $50-$100 million flows each year to Africa (Africa Progress Panel, 2010).

Box 1. Major Programs

Clean Energy and Energy Efficiency: The Bank will provide advisory services and financing to directly and indirectly support the initiation of up to 5GW worth of clean energies or energy efficiencies. It will fund and raise co-financing for up to **UA 2 billion** in this sector.

Sustainable Transport: increase financing by an average of 10% per annum. At least three large African cities will benefit from the introduction of multi-modal/mass rapid transit systems, including traffic management systems, so that more commuters use public transport. An improvement of about 8,000 km of roads is planned for 2011-2015, during which time the railway sub-sector will grow by about 2,000 km. An investment of up to **1.5 billion UA** is expected.

Sustainable Land and Forestry Management: scale up support to sustainable forest management, including reduced deforestation and forest degradation, afforestation and reforestation, leading to a 2% reduction in the current rate of deforestation and land degradation by 2015. The Bank plans to invest up to **1.1 UA billion** in the Agriculture and Agro-industry sector.

Sustainable Water Resource Management: increase financing by an average of 25% per annum for multipurpose water infrastructure, optimization of existing dams, water storage and irrigation systems and projects and the implementation of IWRM strategies to support the 2025 Africa Water Strategy. Up to **UA 1.2 billion** will be invested.

Climate Resilience in Key Infrastructure and Urban Systems: increase financing by an average of about 5% per annum; generate knowledge and competencies required to make adaptation a core component of development in key infrastructure sectors and devote increasing resources to innovative/pilot projects that can have a demonstrative effect for the public and private sectors.

Climate-Proof AfDB Portfolio: **a growing percentage** of new projects will be climate-proofed -- designed, located, implemented and managed to cost-effectively minimize climate change risks.

I. INTRODUCTION

1. Improving the lives of the poor and stabilizing the earth's climate are two intertwined challenges for the 21st century. Climate change is a global issue that affects different regions of the world to different extents. For Africa, where many economies depend largely on rain-fed agriculture, growing numbers of increasingly severe climate events (flood and drought) threaten production and food security. Climate change is depleting Africa's renewable natural resources: land, water and forests. Growing water scarcity, particularly where many bodies of water cross national boundaries, not only threatens the already limited agricultural productivity but also raises the spectra of food insecurity and resource-based conflict. Diminishing soil fertility incites many people living in and near forests to clear new land to expand agriculture, and diminishing returns on agriculture increases the attraction of urban centers as alternatives to rural poverty. However, the rapid population growth, and urban density that increases faster than social services and infrastructure – water, sanitation, waste management – often leads to poverty and disease rather than to prosperity. Climate change threatens to dim the prospects in Africa for greater and more evenly distributed prosperity among the millions of Africans who already live on less than $2 a day.

2. Africa contributes little to climate change, which threatens hard-won development gains and growth in several key sectors[1]. The economic losses could be equivalent to an annual loss in GDP of 1.5-3% by 2030. For example, the costs of a major periodic drought and flood years such as the on-going ones in the Horn of Africa are equivalent to some 10% of GDP.

3. Climate change also provides an opportunity for Africa to adopt a development pathway that is climate-resilient and not carbon-intensive, that builds adaptive capacity and strengthens institutions' (for example, developing meteorological forecasting) capability to integrate information into national planning and that strengthens national climate data systems (which are the primary objectives of the ClimDev-Africa program). This would promote clean, efficient energy technologies and the sustainable management of natural resources (land, water, forests). Such a development pathway would reduce exposure to the hazards of climate change and mitigate its effects.

4. The Climate Change Action Plan puts into place activities designed to achieve these objectives and mobilize resources to finance adaptation measures and build adaptive capacity on the continent. The CCAP also requires building the institutions that can support local innovation, promote meaningful citizen participation, raise financing and ensure that low-carbon initiatives are framed within the broader principles of sustainable development. These will be taken into consideration as the Bank supports RMCs in the development of their Nationally Appropriate Mitigation Actions (NAMA) and the National Action Plans agreed to in COP17 in Durban in 2011.

5. Adaptation and mitigation come at additional costs over and above the costs of "business as usual" development. The Grantham Research Institute has estimated the incremental adaptation cost and that of putting Africa on a low-carbon-growth pathway with significant emission reductions at about $22–31 billion per year by 2015 and $52–68 billion per year by 2030[2].

6. The costs required to bridge the current adaptation deficit and provide the basic infrastructure required to support development and build adaptive capacity on the continent raises these figures significantly. The Bank's Clean Energy Investment Framework, for example, estimates that US$547 billion will be needed for universal access in Africa to reliable and increasingly cleaner electric power by 2030 (an average of $23.8 billion per year). The Bank's Agriculture Sector Strategy 2010-2014 estimates the financing requirements for the agriculture sector alone to be about $8.1 billion annually. The Business Plan for Agricultural Water Management and Storage estimates the costs over five years to be nearly $8 billion. All of these efforts have the potential to climate-proof Bank's current and future investments, and are fully integrated in the current CCAP.

[1] See IPCC (2007): Contribution of Working Groups I, II and III to the Fourth Assessment Report of the IPCC, Core Team, Pachauri, R.K. and Reisinger, A. (Eds.); IPCC, Geneva, Switzerland, pp. 104 and Richardson, K. *et al.* (2009): Synthesis Report from "Climate Change: Global Risks, Challenges and Decisions", Copenhagen 2009, 10-12b March 2009, Univ. Copenhagen.

[2] Grantham research Institute on Climate Change and the Environment, "Possibilities for Africa in Global Action on Climate Change," July 2009.

7. Several financing opportunities exist to support low-carbon and climate-resilient development in Africa, but the needs far exceed available or accessible resources. The implementation of commitments under Article 4.3 of the UNFCCC obligates developed countries to provide financial resources in order to enable developing countries to undertake emission-reduction activities under the Convention, as well as to help countries that are particularly vulnerable to adapt to adverse effects of climate change. Africa could benefit from the inflow of substantial resources to build its adaptive capacity and to climate-proof its vulnerable economic sectors. The signatories of the L'Aquila Food Security Initiative (AFSI) have pledged $22 billion, including $6 billion as additional funding to meet existing commitments. A portion of these resources will be allocated through existing multilateral channels and new multilateral instruments such as the Global Agriculture and Food Security Program (GAFSP), for which the Bank is an Implementing Agency.

8. GHG emissions from deforestation and poor agricultural and pastoral land management account for about 65% of Africa's emissions. Africa could benefit from extended carbon market mechanisms for reduced emissions from deforestation and forest degradation (REDD+) and improved agricultural landscape management.

9. Several vertical climate change funds have dedicated resources to address climate change in developing countries. Signatories to the 2009 Copenhagen Accord agreed to provide up to $30 billion in fast-start finance from industrialized countries to support climate actions in the developing world between 2010 and 2012, and they intend to scale this up to $100 billion per annum by 2020. At COP16 in Cancún, Mexico, in December 2010, an agreement was reached to establish a Green Climate Fund to support projects, programs, policies and other activities in developing countries related to mitigation (including REDD+), adaptation, capacity building and technology development and transfer. In addition, Africa can tap into donors' pledges of dedicated resources for REDD+, amounting to about $ 4 billion.

10. Existing financing mechanisms, however, do not serve Africa well. Of 24 climate funds, Africa has access to very few. Thus the continent received only 12% of available funds between 2006 and 2009, compared with the Europe, Middle East and North Africa (EMENA) and Asia-Pacific regions, which received 37% and 26% respectively. The High Level Panel on Climate Finance[3], in its report launched in November 2010, stressed the exceptional nature of the climate finance challenges in Africa and called for an adequate mobilization of resources and the establishment of a better institutional framework to address these.

11. Through this Action Plan, the Bank will seek to further strengthen the capacities of RMCs to be able to access the resources of the Green Climate Fund which was approved at COP17 in Durban, while it continues to develop an Africa-specific instrument. The Bank will actively leverage resources from the private sector to finance investments in a range of clean-energy projects in infrastructure and agriculture that will mitigate risks related to climate change. The Bank will also help governments determine and implement actions necessary to catalyze private investment in these areas, encourage institutional and policy reforms and incubate innovative approaches.

[3] The High Level Advisory Group on Climate Finance set up by the UN Secretary in February 2010 produced its report in November 2010, which highlighted the ways to mobilize the financing promised for climate change under the Copenhagen Accord. The Group of 19 experts co-chaired by His Excellency Mr. Meles Zenawi, Prime Minister of the Federal Democratic Republic of Ethiopia, includes Bank President Dr. Donald Kaberuka.

II. AFDB CLIMATE CHANGE ACTION PLAN

A. Alignment with the AfDB Strategic Framework

A.1. Strategic Vision

12. The African Development Bank's response to climate change is consonant with its 2008-2012 Medium-Term Strategy (MTS), which promotes environmentally sustainable and inclusive growth. The MTS calls for investments to address the climate change agenda in Africa, primarily by tackling the pressing challenges of adaptation and climate-proofing. The Bank's strategic orientation, as defined in the MTS and the High Level Panel's Report (2007)[4], stresses that in prioritizing infrastructure development, the Bank must ensure that mitigation and adaptation measures are put into place. In considering adaptation as a cross-cutting issue, the Bank has to climate-proof its interventions in key development sectors such as clean energy, transport, irrigation, forests, land and water-resources management. On mitigation, the Report calls on the Bank to focus its interventions on the area of Renewable Energy (RE) in order to tap into Africa's huge RE potential especially in hydropower and wind, which remain underexploited. By so doing, the Bank needs to develop the capacities of African countries to mainstream climate change into their development plans and programs. The report also emphasizes the Bank's leading role in mobilizing additional resources to address climate change challenges in Africa. Following the MTS, the Bank is now preparing a 10-year Long Term Strategy that will cover the period from 2013 to 2022. It will take into account key opportunities and challenges that will drive Africa's development over the coming decade. Its proposed pillars are consistent with the CCAP's goal of supporting climate resilient and low carbon development.

A.2. Related Framework and Strategies

13. The Clean Energy Investment Framework (CEIF) and the Climate Risk Management and Adaptation Strategy (CRMA) articulate the AfDB's response to Africa's climate change challenges. They provide strategic guidance for and during the preparation of this Action Plan. Sector strategies (for water, agriculture, urban development, infrastructure, private sector and capacity development) also complement the CEIF and CRMA and are incorporated here. A Bank Energy Policy and also Strategy are being prepared that will accelerate support for greater access to modern energy and for promoting an efficient mix of various energy sources.

- The Agriculture Sector Strategy 2010-2014 focuses on agricultural-infrastructure and natural-resource management. It aims to improve water irrigation and water storage, reforestation/afforestation community management and the conservation of forest resources, as well as to reverse land degradation and establish regional warning systems to monitor climate risks and threats. The Bank's Business Plan for Agriculture Water Development and Water Storage Enhancement aims to operationalize targets related to increasing the area under improved agricultural water management and expanding water storage capacity in Africa for multi-purpose use, including electricity generation and irrigation.
- The Integrated Water Resources Management Policy promotes an integrated approach to managing water resources in order to achieve economic development and alleviate poverty in Africa.
- The Bank's Regional Integration Strategy, further elaborated in Regional Integration Strategy Papers (RISPs) is a revamped framework for harnessing, in a sustainable way, Africa's natural resources, notably energy and water, by making large climate-friendly projects feasible through regional markets. The RISPs highlight the development of regional infrastructure and related capacity that will affect the movement of goods and people and strengthen the climate resilience of regional economies.
- The Bank has already developed an Urban Strategy to enhance the effectiveness of its interventions in the urban sectors of its RMCs by boosting the viability and competitiveness of African cities so that they become real engines of economic growth and social development that incorporate environmental sustainability.

[4] The Bank High Level Panel on "Investing in Africa's future" established in 2006 by Bank President Dr. Donald Kaberuka as a a consultative and independent organ in charge of formulating recommendations on Bank's medium- and long-term strategic vision. The Panel, co-chaired by H.E. Joachim Chissano (former President of Mozambique), and The Honorable Paul Martin (former Prime Minister of Canada), published its report in 2007.

- The Capacity Development Strategy targets actions central to the foregoing objectives. It identifies the Bank's focus on strengthening the capacity in its RMCs and regional institutions, including Regional Economic Communities (RECs), by designing essential policies for infrastructure development and by creating legal and regulatory frameworks for public-private partnerships and legislation for securing land tenure, among other objectives.

14. The CCAP will also be aligned with RMC systems and ensure that national priorities are taken into consideration, including the National Adaptation Programmes of Action (NAPAs), the Nationally Appropriate Mitigation Actions (NAMAs) and other national systems for climate data management.

B. Goal and Guiding Principles

15. The CCAP is designed to help reduce Africa's vulnerability to climate change while it transitions to low-carbon-growth and sustainable-development paths. Driven by the CEIF and CRMA, and other relevant Bank corporate strategic frameworks as well as emerging global issues related to climate change, it prioritizes and costs key activities, and synchronizes operations for greater development effectiveness. It also seeks to strengthen collaboration and partnerships with regional and international partners, emphasizing the role that such collaboration should play to ensure synergies, cost effectiveness and efficiency. Its eight guiding principles are set forth in Box 2.

Box 2. The Action Plan's Guiding Principles:

- Builds on strong, robust operational and delivery capacity in key sectors.
- Stands as a single robust framework that maximizes synergies between mitigation and adaptation, takes advantage of potential economies of scale, and establishes indicators for monitoring and evaluation.
- Is concrete, practical, cost-effective and compatible with operational priorities and instruments in each Operations Department.
- Provides enough flexibility to accommodate emerging climate change issues and trends pertinent to Africa and its priorities.
- Addresses operational requirements for human/physical resources, management arrangements, and evaluation systems – all set against the larger context of the Bank's mandate, operational dictates, and constraints.
- Recognizes that gender is critical to effectively addressing climate change concerns and must be taken into account at all levels and projects to ensure successful implementation.
- Recognizes that regional integration and partnership among Africans is key for harmonizing policies and sharing best practices.
- Builds on Bank experience and lessons learned.

16. Climate change must be part of a sustainable development framework. Effective climate policy includes adaptation and mitigation actions that ensure maximum benefits and cost effectiveness. Opportunities for integrating adaptation and mitigation into broader development strategies and policies exist particularly in Africa, where many mitigation options offer the promise of facilitating adaptation to climate change and contributing to sustainable development. Some mitigation measures such as afforestation, development of infrastructure and sustainable transportation, could create a win–win situation for many African countries.

17. The CCAP emphasizes that investments must use current opportunities for synergies. Investment in the energy sector, for example, is expected to contribute positively to adaptation particularly in countries that are highly dependent on biomass for energy. Other mitigation measures that can enhance adaptation include the restoration of degraded lands, which can sequester carbon and enhance livelihoods and the resilience of soils for sustaining agriculture. Therefore, the investments under the CCAP will focus primarily the interventions that promote climate-resilient development, as this is the top priority in Africa. The CCAP will also support low-carbon interventions that help leverage Africa's GHG mitigation potential. Annexes V and VI describe projected Bank investments in low-carbon and climate-resilient development.

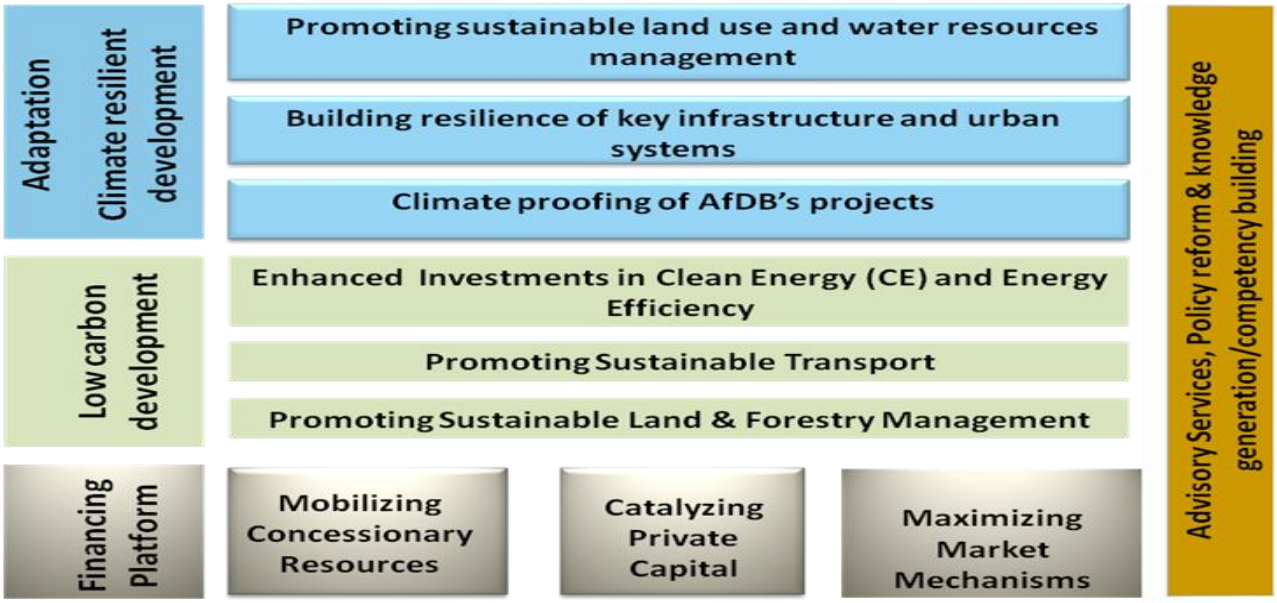
III. ACTION PLAN CATEGORIES AND OUTCOMES

A. Proposed Pillars and Actions

18. The Action Plan is organized around three pillars to achieve the desired outcomes (Figure 1): (i) Low Carbon Development, (ii) Adaptation (climate-resilient development and building adaptive capacity) and (iii) the establishment of a climate change Funding Platform. Advisory services, support to policy reform, knowledge generation and competency building will be provided across all actions to ensure their sustainability:

- Adaptation actions include increasing investments to promote sustainable land use and water resources management, building the resilience and minimizing climate change related risks to key infrastructure and urban systems, and climate-proofing Bank investment projects.
- Low-carbon development actions include increasing investments to tap into Africa's abundant clean energy resources (hydro, wind and solar energy), support energy efficiency initiatives, promote sustainable and low-carbon transport, and accelerate investments in sustainable land and forestry management.
- Enhanced financial resources are required to implement adaptation and mitigation; hence, the third pillar is the creation of a Financing Platform. RMCs will be assisted to mobilize concessionary resources in order to implement their climate change initiatives, strengthen private-sector participation in climate finance, catalyze private capital, and maximize Africa's opportunities and potential to participate in emerging market mechanisms, e.g., the carbon market.
- Priority outcomes are identified in key sectors after an integrated approach whereby knowledge generation/competency building and policy reform support delivering increased investments in RMCs.

Figure 1. African Development Bank Climate Change Program



B. Adaptation: Climate-Resilient Development and Building Adaptive Capacity

19. Adaptation to climate change is Africa's highest priority. Given the current and future vulnerability of the continent, and taking into account its existing development deficits, it becomes imperative to climate-proof development investments and thus contributes to climate resilience.

20. Therefore, Africa must build its adaptive capacity and that of vulnerable people and ensure that climate resilience is mainstreamed into country development programming and implementation (Box 3).

More emphasis will be placed on the special needs of the Least Developed Countries (LDCs), which are particularly vulnerable to the adverse impacts of climate change. These efforts include, inter alia, supporting the preparation and implementation of NAPAs. Annex III details the Climate-Resilient Development targets and the timetable for activities; indicative activities to achieve these targets are presented in Annex IV.

Box 3. Mainstreaming Climate Change

Mainstreaming Climate Change means that governments must include measures to address climate change in on-going and new development policies, strategies, plans, and actions, e.g. improving national institutional coordination of information and action for managing climatic risks, integrating long-term climate-risk into local/district planning and investments to support economic diversification in order to reduce vulnerabilities over time, and enhancing climate risk management strategies and investments at the community level.

ClimDev-Africa, which was endorsed by the African Union Commission, the Economic Commission for Africa and the AfDB, is designed to strengthen Africa's capacity to generate hydrologic and meteorological data that can be used to develop and implement policies that support climate-resilient development in such key sectors as agriculture and food security, water resources, energy and health.

The Bank's CRMA states that "through the focus on gender mainstreaming and women's economic empowerment, the Bank is increasingly paying attention to mitigating the effects of climate change on gender equality. In particular, the Bank is working with other partners to outline the entry points for addressing gender mainstreaming within the climate change framework."

B.1. Sustainable Land Use and Integrated Water Resources Management

21. Fast population growth in Africa increases the demand on natural resources and aggravates the impact of climate change. The Bank aims at contributing to efforts that ensure sufficient adaptive capacity and reducing the vulnerability of the people who largely depend on natural resources for their livelihoods by extending the area of land under sustainable land management. The Bank's actions will also support interventions to help reverse land-degradation trends and sustain the productivity of the natural resource base, maintain soil fertility, increase productivity per unit of resources used and halt practices that use the resource base beyond its regenerative capacity. As populations increase, already stretched water resources management capacity is further strained. Integrated Water Resources Management (IWRM) is a critical foundation for sustainable development (Box 4).

Box 4. The Role of Water in Climate Change Adaptation

Adapting to increasing climate variability and change through better water management requires policy shifts and significant investments guided by the following principles:

- Strengthening the governance of water resources management and improving the integration of land and water management.
- Improving and sharing knowledge and information on climate, water and adaptation measures, and investing in comprehensive and sustainable data collection and monitoring systems.
- Building long-term resilience through stronger institutions and water infrastructure, including well-functioning ecosystems.
- Investing in cost-effective adaptive water management and technology transfer.
- Releasing additional funds through increased national budgetary allocations and innovative funding mechanisms for adaptation through improved water management.
- Supporting water security infrastructure, including investments for water storage enhancement and sustainable agriculture water management in addition to the provision of enabling environment for integrated water resources management.
- Supporting water infrastructure operations that are economically viable, financially profitable, and socially and environmentally sustainable.

Adapted from UN Water 2010, "Climate Change Adaptation is Mainly about Water."

22. The core principle of IWRM is to coordinate the development of water and related resources. For this reason, IWRM is a key action under the Adaptation Pillar.

23. The Bank's Water Partnership Program and the African Water Facility will (i) continue to provide support to regional activities and to the development and support of national IWRM policies and efficiency plans; (ii) support projects and activities that enable countries to address the impact of climate change and variability on water resources management, (iii) promote the development of water security strategies and implement action plans to mitigate and adapt to climate change, and (iv) support regional cooperation on trans-boundary water resources management.

24. The Institutional Support and Project Studies Component under the Bank's Water Business Plan will build on existing operations in OWAS/AWF/OSAN and the Water Partnership Program. It will include analytical and sector work, as well as in-depth studies covering institutional and capacity-building activities, policy formulation, and the identification and preparation of operations to support AWM and water storage expansion. In addition, the Bank will provide support to the development of information management systems to be used for the elaboration of national and regional water resource management plans, programs and project design, and to generate data for Monitoring and Evaluation activities feeding into decision-making processes. Specific projects that will be supported include: multipurpose dams and the optimization of existing dams, the development of the Program for Infrastructure Development in Africa, and projects in support of the implementation of the African Agenda on monitoring and evaluation in the water sector.[5]

B.2. Building the Resilience of Key Infrastructure and Urban Systems

25. Africa's poorly developed infrastructure is a major constraint on the development of a more diversified and climate-resilient economy. Given that infrastructure is the AfDB's key area of intervention, it is obvious that building climate resilience into the Bank's investments in Africa remains a high priority. The Bank is developing RISPs covering all African sub-regions. The objective of the regional strategy is to provide a coherent and focused framework to guide Bank assistance in support of regional integration and regional programs (Box 5). The rapid growth of urban centers in Africa poses a special challenge to infrastructure development.

Box 5. Regional Integration

Regional Integration is a core mandate of the Bank, as reflected in the 2008-2012 Medium Term Strategy, the Strategic and Operational Framework for Regional Operations, and the 2009-2012 Regional Integration Strategy. The Strategic pillars for the Regional Integration Strategy Paper for Southern Africa are: (i) Capacity Building and Regional Infrastructure which include: Transport/Trade Facilitation Infrastructure (ii) Regional Energy Development (clean energy and interconnectors) and (iii) Information and Communications Technology.

The Bank is taking leadership in promoting environmental and climate-friendly infrastructure programs at the regional level. For example, railway lines produce fewer carbon emissions and have a comparative advantage in handling bulky, long-haul transportation in the extractives industries in the southern region. Hydropower has a huge potential in the region at competitive costs.

26. The stark reality is that the bulk of Africa's urban population lives in slums and is exposed to severe health hazards from communicable diseases and other physical exposures. Cities are hubs of development that may also be key drivers of global warming. Through its Urban Development Strategy, the Bank will deliver robust infrastructure, strengthen urban governance, and support the development and implementation of robust policies and related institutions. Through investments in the water sector, the Bank will also seek to reduce the proportion of urban dwellers exposed to water scarcity exacerbated by climatic factors. Several African cities are close to coastlines; flood protection programs will be implemented to buffer them from rising sea levels.

[5] The ongoing work by the Bank's African Water Facility on country M&E systems will provide RMCs with a long term platform and mechanism to regularly monitor the status of the Africa Water Sector.

B.3. Climate-proofing AfDB projects

27. All Bank projects initiated between 2007 and 2009 have been retrospectively screened for climate risks. Vulnerable projects are being made climate-resilient through internal Bank resources and funds from the Global Environment Facility, among others. A growing proportion of newly designed projects are being climate-proofed (Box 6). The Bank is committed to ensuring that its own investments which are sensitive to future climate-change impacts will be able to withstand them. It is therefore developing its internal capacity and the tools to assess vulnerabilities, and putting into place procedures and mechanisms for screening and approving projects. The AfDB is advanced in developing its screening tool to ensure that all Bank-funded projects are climate-proofed or that climate resilience is built into its projects.

Box 6. Climate-Proofing the Ndali-Nikki Chicandou Nigerian Border Road Project

The Ndali-Nikki-Chicandou-Nigerian Border Road Project entails developing and asphalting 77 km of border road. The project impact area is characterized by a tropical climate with two seasons: a seven-month dry season with high temperatures (38 to 40°C) and a rainy season of approximately five months with annual rainfall of 1100 mm. Threats to the road include intermittent flooding during the rainy season and cracks to the road surface during the dry season. The rains aggravate these cracks.

The project design includes several provisions to compensate for the possible effects of projected increases in rainfall and temperature: for example, building drainage and evacuation systems to carry water away from property and assets, filling in low-lying areas, restoring vegetation cover on borrow sites, grassing slopes, and developing cut/backfill slopes to increase road longevity. To mitigate the increase in CO2 emissions expected from asphalting and more motor traffic, the project will systematically plant trees and restore the vegetation cover to create carbon sinks and reduce fuel consumption by cutting travel times.

28. The Bank will continue to support the development and adoption of climate-resilient engineering and architectural design standards, building materials and codes of practice for operations and the maintenance of all types of infrastructure, many of which will draw upon African regional solutions and technologies. In many instances, though, climate-proofing measures will not be economically viable. In these cases, the Bank will take a pragmatic approach to optimizing cost against the benefit of additional climate proofing and continue to seek additional financial resources through various climate funds.

C. Low-Carbon Development

29. Africa accounts for about 4% of global GHG emissions. Land use changes account for about 65% of these. Although currently low, emissions are increasing. The CCAP low-carbon-development pillar will help African countries move towards low-carbon-growth pathways described in frameworks such as the NAMAs, which comprise voluntary actions that developing countries commit to in order to assist global efforts to mitigate climate change, taking into consideration their development objectives.

30. The Bank is also elaborating a Green Development Strategy that seeks to make Africa, in the long term, a potential pole of economically, socially and environmentally sustainable growth. Annex 1 describes low-carbon-development targets and the timetable for their delivery, while Annex II details indicative activities to accomplish the targets.

C.1. Increasing Investments in Clean Energy and Energy Efficiency

31. The CCAP aims to establish an energy-use reduction target for African governments and work towards its implementation by, for example, supporting policy innovations to eliminate constraints to Clean Energy (CE) and Energy Efficiency (EE) projects and provide technical assistance and competency-building programs to strengthen strategic energy planning, sector policies, environmental and social impact management, regulatory and legal frameworks and institutions. The Bank will also scale up its investment support for the development and use of CE sources and EE technologies and practices (Box 7).

Box 7. Clean Energy in Kenya

The Indian Ocean winds funneled through the Ethiopian and Kenyan highlands move through a relatively desolate spot near Lake Turkana at a constant speed of 11 meters per second. This is an ideal location for situating wind turbines. The Lake Turkana Wind Independent Power Project will build 365 wind turbines and reinforce 200 km of roads and bridges over which to haul the turbines from Mombasa, and the government will add about 426 km of transmission lines to connect and supply power to the national electric grid. This project will add an additional 25% to Kenya's installed power while reducing carbon emissions by an estimated 16 million tons during its 20-year lifespan. 50 MW of clean power will be installed in 2012; in 2013, when the wind park is fully commissioned, it will have an installed capacity of 310 MW, and it is expected to generate at least 160 MW. Projected costs are approximately €500 million. The African Development Bank will facilitate the entire debt tranche through the African Financing Partnership, the A-B loan syndication product, and up to €100 million of Bank senior loans.

32. The CCAP calls for support to least-cost public-sector, private-sector and community-led energy solutions for rural areas, including co-generation, geothermal, hydro, solar, wind, and biogas to increase access to reliable electric power supplies while minimizing GHG emissions, to improved cook-stoves, and to other reliable and commercially proven low-energy lighting technologies. At the same time, the Bank will provide support towards increasing installed generating capacity, tapping into clean energy sources at national and sub-regional levels. Furthermore, the CCAP provides for the Bank to screen new projects for EE opportunities early in the project cycle and to provide energy audits and energy management training for RMCs. The Bank's CE and EE program is expected to support a growing share of clean energy in Africa's energy mix (10-20% by 2015).

Box 8. Mobilizing Public and Private Finance for Food and Fuel

In 2010, the Bank played a lead role in mobilizing finance to support the Markala Sugar and Bioenergy project in Mali. The Bank's support featured loans under both the African Development Fund and private-sector windows in public-private partnership between the Government of Mali and the private sponsor. The project will develop a greenfield sugarcane plantation to produce sugar, ethanol and renewable power. Specifically, the project will produce annually 190,000 tons of sugar, 15 million litres of ethanol and 30 MW of renewable energy. Through the production of low-carbon ethanol and electricity that will substitute for fossil fuels, the project will reduce carbon emissions by approximately 165,000 tons per year. The project will also feature irrigated agriculture, which will mitigate drought risks that may be exacerbated by climate change.

33. Africa has comparative advantages for bio-energy development with large feedstock potentials, and a number of African countries have developed or are developing bio-energy strategies and policies. It is important to fully recognize the potential implications for the environment and food security (Box 8). The AfDB will therefore consider support on a case-by-case basis to the development of highly sustainable bio-energy projects that are energy efficient and that lead to significant carbon reductions (on a lifecycle basis after accounting for land use change). In addition, the Bank will help African countries establish bio-energy policies and development strategies, including land-mapping exercises, frameworks for local consumption (at national and regional levels) and the development of internationally recognized environmental and social-certification systems and practices to facilitate access to international markets. The forthcoming Energy Policy and Strategy describes these strategic orientations more fully.

C.2. Promoting Sustainable Transport

34. GHG emissions from Africa's transport sector are growing fast. To adequately strengthen the transport network, reduce fuel consumption and GHG emissions, and improve accessibility in urban and rural areas, the Bank will structure its support in terms of (i) technical assistance for planning, fiscal and regulatory frameworks that underpins the development of the transport sector, (ii) public and private investments in complementary modes and technology choices to promote a more climate-sensitive transport sector that increases access while reducing fuel consumption and (iii) support to behavioral change by increasing public awareness and education and promoting more fuel-efficient transportation.

35. The Bank will assist governments, municipal authorities and private-sector operators in their efforts to develop and implement rational urban planning anchored on urban master plans and traffic-management systems that examine options of mass transit/multi-modal, cargo bulk transportation systems within and between large cities to conserve energy and minimize emissions and to develop sustainable production and use bio-fuels as substitutes for petrol fuels. It is expected that at least three large African cities can benefit from the introduction of multi-modal/mass rapid-transit systems that increase commuters' use of public transport.

C.3. Strengthening Sustainable Land Use and Forestry Management

36. Africa has a significant mitigation potential associated with reducing emissions from Land Use, Land Use Change and Forestry (agriculture and forestry). Box 9 summarizes AfDB forestry work. The Bank will further engage with its RMCs to develop strategies and regulatory frameworks to enable them to benefit from such opportunities through the REDD+ mechanism.

37. The Action Plan aims to support activities covering different phases of REDD+ such as: the development of national strategies or action plans, policies and measures, and capacity building; the implementation of national policies and measures, as well as national strategies and action plans that could involve further capacity building, technology, development and transfer, and results-based demonstration activities; and results-based actions that should be fully measured, reported and verified. The target is to reduce the current rate of deforestation and land degradation by 2% by 2015.

Box 9. Bank's Work on the Forestry Sector

The Bank has been investing substantially in preserving Africa's forests for nearly 30 years, financing about 100 operations worth about $ 2.8 billion. Several projects will benefit from REDD+, including the $78 million Farm Income Enhancement and Forest Conservation Project in Uganda that is re-vegetating 9,900 ha of degraded watershed, protecting 99,000 hectares of natural forests and establishing 13,500 ha of tree plantations. The Bank hosts the **Congo Basin Forest Fund (CBFF),** established in June 2008 and currently supported by the Governments of the United Kingdom and Norway, through a $ 200 million grant. CBFF supports sustainable forestry management, the reversal of deforestation and forest degradation, and the implementation of the REDD+.

38. Through such funds and programs as the Congo Basin Forest Fund, the Forest Investment Program of the Climate Investment Funds and the proposed Copenhagen Forest Fund, the Bank will be positioned to increase resources to RMCs to implement REDD+. The Agriculture Strategy 2010-2014 targets the reduction of net forest loss in Africa by around 100,000 hectares per year (Africa's baseline net forest loss is approximately 4 million hectares annually).

D. Gender and Climate Change

39. Climate change and gender inequality are inextricably linked. Climate change can slow progress towards gender equality by posing a challenge to poverty reduction. Indeed, in Africa, existing disparities related to the social positions of women within the family and the community are aggravated by the effects of climate change on the factors that protect women's means of subsistence (food, water and energy supply). It is therefore critical to understand the linkages between gender and climate change.

40. The CCAP seeks to mainstream gender equality into all its activities. This calls for the design and implementation of specific measures to enhance the capacity of women, children and men to overcome barriers. It will also imply encouraging them to fully participate in the implementation of the Action Plan and to fully benefit from this implementation. Details will be presented in individual investment projects. The CCAP notes the growing body of knowledge on gender and climate change and emphasizes that this should be continuously reflected in the formulation of Bank policies, strategies and investment projects. The link between gender and climate must be an integral dimension of the design, implementation, monitoring and evaluation of policies and investment plans.

41. The CCAP will guide the implementation of the Gender Plan of Action adopted by the Bank, particularly in relation to its main areas of focus: supporting investment activities that promote women's economic activities, building institutional capacity and knowledge, and supporting governance and policy reform. Through the Gender Plan of Action, the Bank plans to strengthen the capacity of RMCs to collect, analyze and disseminate gender statistics. This will also involve the collection of data needed to understand gender differences in access to climate information and productive resources, which can help improve the adaptive capacity of populations in RMCs. The Action Plan calls for gender experts at the Bank to ensure that African decision-makers are well informed about the gender dimensions of development, particularly of climate-sensitive sectors such as agriculture, water resources, transport and energy. The Action Plan also seeks to empower women in all aspects, including access to appropriate information, training, adaptive technology and adequate resources necessary to adapt to climate change.

E. Climate Change Financing Platform

42. The Financing Platform will seek to increase and enhance Africa's access to existing resources within the Bank Group but also access to global funds such as the CIFs, the GEF, the Adaptation Fund and the AfGF. In addition to the ADB and ADF windows, as well as opportunities offered through public-private partnerships and capital markets, the Bank is currently hosting and managing several climate financing instruments including:

- The Sustainable Energy Fund for Africa (SEFA), which will provide technical assistance for the preparation of bankable renewable energy projects;
- ClimDev-Africa, which will focus on enabling climate-related information for multi-stakeholder decision-making and the funding of pre-investment activities;
- The CBFF, which finances activities and projects aimed at promoting the equitable and sustainable use, conservation and management of the Congo Basin forests and ecosystems; and
- The AWF, which aims to assist African countries to mobilize and apply resources for the development and the improvement of the Water and Sanitation sector.

43. The Bank is raising additional funds to support climate-related initiatives, as illustrated by the launched clean-energy bonds. To support the sustainable exploration of Africa's abundant clean-energy resources, it is expected that more of such bonds will be offered.

44. In accordance with the AU Summit held in Malabo from 23 June to 1 July 2011 by African Heads of State, the Bank is designing the Africa Green Fund, with the aim to support country-owned and -led climate compatible development in Africa. The AfGF intends to make more efficient use of the Bank's existing facilities by consolidating them under one umbrella and streamlining its access. The design and establishment of the AfGF is an on-going process that benefits from extensive consultation with RMCs, donors, civil society and a variety of other stakeholders. The Fund also benefits from the experience that the Bank has acquired in hosting and administering special funds that address the needs and specificities of African countries.

45. Other existing sources of funding in general include the carbon market. Where carbon emissions can be monetized, is a potentially powerful tool to reduce GHG emissions at lower cost, mobilize private-sector investment, and transfer new and additional financial resources and clean technology to Africa. The Bank will enhance both its own capacity and that of its RMCs to participate in the carbon market and maintain private-sector confidence in Africa's carbon market through the Africa Carbon Support Project and the Africa Carbon Facility (ACF). The ACF will be established as a revolving mechanism with initial seed capital provided by contributors to fund CDM project development costs of eligible African CDM projects (from within and outside the Bank's pipeline).

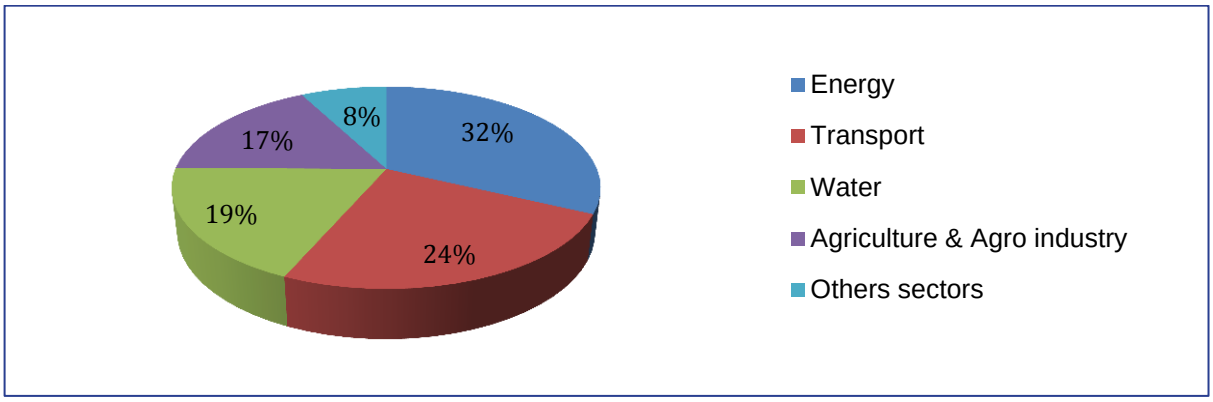
IV. FINANCING AND IMPLEMENTATION

A. Anticipated Climate Change Investment by Sector

46. The Bank plans to invest about 6 billion UA on climate change-related projects over the next five years. The project pipeline in energy, transport, water, and agriculture and agro-industry sectors – through the 2011-2015 private- and public-sector windows – has been analyzed[6]. More than one department may implement some projects jointly. Table 1 summarizes the anticipated Climate Change investment plan for the same period.

Table 1. African Development Bank Climate Change Investment Plan 2011-2015

Sector	Expected Amount (UA billion)	%
Energy	2.06	32%
Transport	1.58	24%
Water	1.20	19%
Agriculture & Agro industry	1.10	17%
Other sectors	0.50	8%
Total	**6.44**	**100%**



Sources: Pipeline of climate-change related projects from ONEC, OPSM, OSAN, OITC, OWAS, ONRI

As noted in the Table:

- The energy sector represents around 32% of investments, with projects mostly related to the development of clean energy. Given the cross-cutting nature of energy, which entails multi-sectoral interventions in the implementation of projects, all clean-energy projects in the pipeline can be considered as fulfilling both mitigation and adaptation objectives.
- The transport sector's investment represents 24%, with projects focusing primarily on promoting sustainable transport by reducing GHG Emissions. Some projects, especially road construction, are designed to reduce vulnerability and build resilience.
- Investments in the water and agriculture sectors account for 19% and 17% of the pipeline, respectively. These are designed to support agricultural infrastructure, irrigation and water storage with high adaptation needs.

47. These responses require climate policies to be broadly integrated into development policies, regulations and financial incentives. Moving towards a low-carbon, climate-resilient economy will also require strengthening capacity and institutional systems. Accordingly, the Bank plans to invest around 10% of its budget-support resources, an estimated $1 billion, to promote such reforms in RMCs through climate

[6] Pipeline information originated in and was validated by respective sector departments, submitted by ONEC, OPSM, ONRI, OWAS, OITC and OSAN.

change/green-growth budget-support operations. Considering the limited capacity in key areas related to climate change, the Bank plans to invest about $ 100 million to support knowledge and competency building to deliver on policy reform and investments. Furthermore, these investments will require filling the gaps related to the currently limited absorptive capacity of African countries. Necessary actions through the CCAP will be taken to ensure the design of better-quality operations that can absorb an important amount of resources. The CCAP will provide incentives to build the capacity of RMCs to make good use of resources.

B. Funding

48. The activities identified in Annex II are projected to be financed through resources available within the ADF, ADB and other facilities that the Bank can draw upon. Given the vast and rising needs on the continent, however, the Bank will expand its activities in line with the principles of this Action Plan as and when additional resources become available (see Section 3.5).

C. Human Resource Capacity

49. Mainstreaming climate change into the Bank's operations, as well as mainstreaming climate change into CSPs and client instruments, will remain the primary responsibility of various operational departments, with the facilitation of the CCCC. The Bank has a large pool of professionals who are task-managing projects and who will lead the implementation of the projects listed in this Action Plan. However, delivering the Action Plan will require additional expertise on climate change and sustainable-development issues.

50. The additional skill sets will be acquired through the re-training of existing staff, recruitment and internal capacity building. In addition to the current group of specialists, expertise is required in areas such as environmental and social safeguards including the gender, clean-energy, forestry and land-use sectors; methods and tools for vulnerability analysis; and economics of GHG mitigation strategies and adaptation. The exact staff requirements will be determined by various departments and will be filled according to existing budget and staff-planning processes.

51. ORQR is delivering a series of training sessions to enhance Bank staff capacity to mainstream climate change as well as incorporate environmental and social safeguards into Bank operations. This ongoing exercise will aim to enlarge the pool of knowledgeable Bank staff that will implement the CCAP.

52. The CCAP agenda will eventually be reflected Bank-wide as internal administrative, accounting, monitoring and management duties are put into place. The operational departments will assume a leadership role in implementing its substantive aspects. Broadly speaking, Figure 2 details the core activities and responsibilities of various departments.

Figure 2. Institutional Arrangements

<table>
<tr>
<td rowspan="3">AFDB CLIMATE CHANGE ACTION PLAN 2011-2015</td>
<td rowspan="3">Climate Change Coordinating Committee (CCCC)</td>
<td>Sector department</td>
<td>Leading project Implementation
OPSM private sector
OSAN agriculture
OWAS water resources
OITC public-sector transport
ONEC Energy and Climate Change</td>
<td rowspan="3">ORQR to establish the Africa Green Fund Advocacy and coordination of the capacity building initiatives with EADI and to develop screening tools including monitoring indicators necessary to monitor CCAP progress on targets and reports on corporate key performance indicators.</td>
</tr>
<tr>
<td>Service department</td>
<td>EADI will lead on capacity building in RMCs.

EDRE will help develop key knowledge and analytical work.
ORRU will support partnerships and outreach</td>
</tr>
<tr>
<td>Regional department</td>
<td>ONRI will lead the prioritization of regional projects, and ensure strategic alignment with the Bank's regional integration strategy provision of soft support to RECs and continental organizations.</td>
</tr>
</table>

D. Partnerships and Communication

53. Building partnerships and enhancing communication are crucial to the success of the Action Plan. The Bank will work with national governments to enable policy environments that encourage the private sector to harness its resources and creativity and work in partnership with the public sector and civil society organizations to quicken the pace of addressing the climate-change challenges on the continent. In this regard, policies that help overcome key risks and thereby provide incentives to undertake climate-friendly investments should be developed.

54. The Bank will continue to strengthen its partnership with the United Nations Economic Commission for Africa, the AUC and Regional Economic Communities to support continental initiatives: bolstering regional operations is a focus area for the Bank.

55. The Bank will also seek to deliver the CCAP through sustained partnerships with a range of other specialized regional and international multilateral institutions (World Bank, UNDP, UNEP, IFAD, UNFF, FAO, WHO, WMO, UNFCCC Secretariat), bilateral development institutions (e.g., DGIS, DFID, USAID, SIDA, CIDA) and civil-society organizations such as the World Wildlife Fund that are involved in clean energy; climate risk management strategies, programs and environment; and sustainable development.

56. The Bank will continue to explore opportunities for joint training and cooperative technical support, which will be crucial. In some cases this can proceed on the basis of relationships between task managers at the various organizations, but it should be a managed process in which new networking activities are introduced.

57. The Bank continues to host existing partnerships while implementing the CCAP, including the 2011 CIF's Partnership Forum[7]. The Bank is also co-organizing the Africa Carbon Forum every year, as a member of the Nairobi Framework institutions.

58. The Bank is also supporting African negotiators, who are enhancing their legal, financial and economic capacities to negotiate and increase their international visibility.

59. The implementation of the CCAP will be accompanied by an efficient communication plan that ensures the visibility of the actions and issues reports on progress made.

E. Lessons Learned and Risks

60. The CCAP builds on the Bank's work and lessons learned while implementing climate change and other related initiatives, including:

- Multiple channels of funding place enormous transaction, coordination and transaction costs on RMCs and the Bank.
- Institutional capacity to leverage resources at the scale needed is part of AfDB's comparative advantage and should be enhanced as a core way of doing business.
- Knowledge generation and sharing, as well as skills strengthening inside the Bank and within RMCs, RECs and specialized regional and continental organizations, will be critical to responding to the challenges.
- Grant-based resources available are insufficient to meet the needs of the poorest and more fragile states – the most in need of climate-resilient investments.
- Predictability and reliability of financial flows and a stronger institutional capacity will be critical for delivering effective support to RMCs as they tackle development concerns in a changing atmosphere.
- It is important that projects offer added value and respond to client demand.

[7] The first Partnership Forum was hosted by the World Bank in Washington DC in 2008 and the second by the ADB in Manila in March 2010.

61. Through previous operations, the Bank has recognized various critical external and internal risks that must be mitigated during the implementation of the Action Plan, along with their mitigation measures. These are presented below:

- The need to further strengthen the African voice in the climate change finance debate. The Bank will continue to support Africa's access to the Green Climate Fund and will prepare to become an implementing entity for those resources.
- The inability to generate substantial new finance and dedicated AfDB resources for climate change. The Bank will explore a wide spectrum of existing and new instruments to minimize the risk of possible failure with any particular instrument.
- The development of a robust, credible results framework. This might be time-consuming as results and impacts need to be demonstrated to increase operational credibility. The Bank will implement a phased approach and select an immediate set of key actions, deliverables and indicators for the short term and initiate a process for developing a climate change results-based framework in the medium term.
- Limited staff skills and knowledge of climate change issues. Capacity enhancement will be required and implemented, as indicated above.
- The challenge of coordination across departments. Institutional changes have been and will continue to be made to strengthen the Bank's climate change business model, and systems and instruments will be put in place to facilitate such coordination.

F. Monitoring and Evaluation

62. The Bank will develop a CCAP results-based framework to assess the impact of its efforts to promote low-carbon development and adaptation, and of its climate actions in development. Understanding of these linkages and impacts is constantly evolving, and the Bank's capacity and systems must be strengthened to integrate this information effectively into the framework. The Bank is putting into place a Monitoring Evaluation Framework in order to test the results and impacts of the implementation of the CCAP and to provide results-based guidance for the implementation of climate-change-related operations.

63. In the initial stages of CCAP implementation ORQR, in collaboration with operational departments (ONEC, OSAN, ONRI, OWAS and OPSM), will select a set of short-term key actions, deliverables and indicators to monitor climate-related actions and initiate a process for developing the climate change results-based framework in the medium term and in a participatory manner. The risks that are identified will be addressed accordingly. A mid-term review of the Action Plan will be conducted at the end of 2012 to assess performance as well as to re-align it with the Bank's MTS.

64. The results-based framework will include a system for tracking possible additional operations costs when low-carbon-development and adaptation aspects are added and recognizing the "co-benefits" that actions in climate-sensitive sectors can generate for reducing vulnerability. Collaboration will be sought with other MDBs and UN partners to harmonize systems insofar as possible.

V. CONCLUSION AND RECOMMENDATIONS

- The CCAP responds to the challenge of building climate resilience and promoting low-carbon-intensive development in Africa. It describes and defines how respective Bank departments will work together to deliver on the Bank's climate change agenda. The Plan will seek to position the Bank as a key operator in climate change work in Africa, building on the institution's strong operational capacity.

- The CCAP is consistent with the Bank's MTS. The operational priorities have been mapped to specific time-dependent targets for the CCAP 2011-2015. It is to be noted that while the plan was being drafted and finalized in 2011, an important part of the actions had already been implemented. These include activities related to capacity development, lending, and country programming and finance.

- In implementing the Plan, the Bank will seek to maximize efficiency and resource utilization. The CCAP will serve as a framework for improved coordinated actions within the Bank for a "one-Bank approach" as well as outside with different partners to avoid a duplication of actions.

- The next immediate steps for an effective implementation of the proposed action plan include the development of a short-term monitoring and evaluation framework to guide CCAP implementation.

- The Boards are kindly invited to consider this Action Plan, which is intended to streamline the Bank's work in climate change and scale up the Bank's investments in climate-resilient and low-carbon development in Africa.

ANNEX 1: CLIMATE CHANGE ACTION PLAN RESULTS-BASED FRAMEWORK FOR LOW CARBON DEVELOPMENT

Goals	Expected Results	Beneficiaries	Performance Indicators	Indicative Targets & Timeframe	Assumptions
Pillar 1: Low Carbon Development					
Growing share of renewable energy in energy mix of African countries	Cleaner energy – falling greenhouse gas and other noxious emissions per unit power output; declining carbon intensity of economic output. Clean energy resources tapped sustainably to satisfy a greater part of the energy needs of rural communities.	- RMC Governments - RECs - Urban Authorities - Rural Local Authorities - Communities - NGOs	RE share of total energy output	10%-20% by 2015	Energy policies will provide adequate incentives to energy sector operators, communities, businesses and households to switch increasing fraction of their energy needs to RE. Countries will acquire and master the most efficient RE technologies. The CDM will be expanded to promote a wider range of "clean energy" technologies. Countries and RECs will have strong institutions to enforce environment and social protection safeguards.
Rural energy and power infrastructure strengthened in all African countries	Local RE resources are developed sustainably in a growing number of communities – including hydro, geothermal, wind, solar, biogas, etc.; Decentralized mini- power grids distribute electricity in a growing number of remote communities.	- RMC Governments - Rural Local Authorities - Local Communities - NGOs	Rural access to electrical power Rural households using RE	- > 5% in SSA by 2015 - > 10% by 2015	There is sustained political will to make ending rural energy poverty a top priority. Capacity will be developed to mobilize financing for rural energy infrastructure on a sustainable basis. An adequate technological skills base, and business management capacities will be developed at the community level in RMC's.
Increasing supply-side technical efficiency gains	Energy Efficiency effectively slows down the rate of energy production capacity growth required to meet demand without reducing socioeconomic welfare.	- RMC Governments - Energy companies and Power utilities	**Supply-side:** Technical efficiency gain in electric power sector	> +5% cumulative gain over the 2011-2015 period	Energy policies will provide adequate incentives to energy sector operators to invest in upgrading to: - more efficient generation, transportation and distribution infrastructure; and - more effective O&M standards.
Increasing demand-side energy savings	Energy saving by frequently upgrading to more efficient and/or energy-saving appliances, or adopting a frugal culture accelerates CO2 emission reduction of per capita and/or per unit GDP	- RMC Governments - Urban Authorities - Economic operators - Households (men and women)	**Demand-side**: Average per capita electricity consumption in Africa compared to India, China &Latin America,	Average per-capita electricity consumption < Electricity consumption rate among the comparators	Incentives will be adequate for energy consumers to: - invest in upgrading to more efficient appliances or production processes; and - develop a more frugal energy culture – against energy waste. Appropriate pricing of energy to encourage demand management
Reducing / slowing the growth rate of energy consumption and GHG emissions from the transport sector	Strategic planning of multi-modal transport infrastructure (regional, national, urban) in selected countries, to: - rationalize travel demand; and - maximize use of mass rapid transit systems and railway transport.	- RMC Governments - Urban Authorities - RECs	Public transport's share of intra-urban commuters	An increase of 5 to 10% by 2015	National Departments of Transport have adequate technical capacity to undertake comprehensive strategic planning.

Goals	Expected Results	Beneficiaries	Performance Indicators	Indicative Targets & Timeframe	Assumptions
Pillar 1: Low Carbon Development					
Increase the area under sustainable forestry management **Improve forestry and agriculture interventions to promote sustainable and improved land management**	Forest cover is stabilized / expanded under improved forest management methods, providing a sustainable source of fuel wood for rural households Major ecosystems and biodiversity in RMCs are preserved or managed sustainably	Farmers and rural populations(men and women) of RMCs	Change in rate of deforestation and land degradation Size of community forest plantations created	Reduce current rate of deforestation and land degradation by 2% in 2015 Size of community forest plantations created in RMCs increases from 18,000 to 50,000 ha in 2015	Risk: fragmentation and duplication of efforts in marshalling common efforts and inter-agency coordination Attenuation Measure: support to current thematic networks and policy coordination efforts at regional and continental level will foster greater understanding and cooperation

ANNEX 2: LOW CARBON DEVELOPMENT TARGETS INDICATIVE ACTIVITIES

Pillar 1: Low Carbon Development		
Objective	**Actions**	**Responsibility**
Operational approaches to scaling-up low carbon development opportunities		
Scale up support for Energy Efficiency and Clean Energy	Increase AfDB's energy lending for CE and EE by an average of 10% per annum during the five-year period FY11-15 (subject to additional financing to buy down incremental cost) Utilize CIF and other "soft" financing packages for CE/EE projects Introduce screening for EE opportunities in the energy sector Extend screening for EE opportunities in infrastructure and urban projects , including the use of bio-energy	ONEC, OPSM, OSAN
Scale-up support for Sustainable Transport	Increase AfDB's sustainable transport lending by an average of 10% per annum during the five-year period FY11-15 (subject to additional financing) Multi-modal and mass transit systems in 3 large African cities Projects addressing traffic congestion (e.g. grade separated interchanges, viaducts, bridges, railway transport)	OITC, OPSM
Scale-up support for Forest carbon finance activities (e.g. REDD)	Support RMCs in developing concrete mechanisms to bring revenues from forest carbon finance to realizing co- local, forest-dependent communities and maximize other benefits of these projects Develop and demonstrate implementation of new financing mechanisms	OSAN
Carbon Neutral AfDB	Establish a program to offset business and travel emissions Reduce absolute emissions for all offices & offset remaining emissions by purchase of carbon credits	ORQR CGSP
Stepping up knowledge generation & competency building		
Scale-up Knowledge generation	Critical economic sector work, impact assessment and scoping studies for business development Cutting-edge technical assistance programs delivered on demand to governments and other key stakeholders	ECON, ONEC, ODS, ORQR
Scale-up client competency building	Establish partnerships with other institutions to: Provide support to build capacity for accessing a growing set of climate financing instruments Raise country awareness of impacts and possible actions Deliver competency building through projects	ONEC, All Departments
Support to policy, institutional and organization reforms		
Scale-up policy, institutional and organizational reforms	Use budget support operations to promote policies providing appropriate incentives to energy sector operators, communities, businesses and households to switch increasing fraction of energy needs to CE and invest in EE; promote development of regulatory frameworks that will enable RMCs to take advantage of existing and new carbon finance products Support RMCs in establishing GHG inventories and monitoring systems and developing NAMAs Support RMCs in developing more sustainable urban and transport master plans Support RMCs in establishing institutions capable of promoting access to climate finance instruments (e.g. DNA's)	ONEC, other relevant Departments
Cross-cutting operational activities		
Climate Change integrated in CSPs, RISPs	Incorporate Climate Change in CSPs and RISPs	ONEC, all relevant Regional Departments
CC considerations included in sector strategies	Address climate change issues in forthcoming sector strategies: Urban Sector Strategy and Energy Policy Develop guidelines for mainstreaming climate change into sectoral projects	ORQR, ORPC, ONEC, all relevant departments

Pillar 1: Low Carbon Development		
Objective	**Actions**	**Responsibility**
Improved portfolio tracking of CC investments	Develop a systematic approach to tracking AfDB CC-related investments ($ and # of projects) Develop and operationalize methods for Carbon Accounting of AfDB operations (start with energy, transport and forestry)	ORQR, ONEC, OSAN
Develop toolkits to help include climate change aspects in knowledge products and operations	Develop toolkit to integrate climate change in Budget Support operations Provide sectoral guidelines and good practice notes in various sectors (water, agriculture, etc.) Develop screening tool for Bank projects Develop tools for mainstreaming gender and climate change in bank operations	ORQR, ONEC, all relevant departments
Development of an outcome-based results framework	Develop core set of harmonized indicators and develop an AfDB Climate Change M&E system	ORQR, ONEC
Partnerships and Outreach		
Enhance cooperation with development partners to maximize impacts	UN System – relevant agencies – IFAD, FAO, UNEP, UNDP UNFCCC Secretariat - Coordinate participation and contribute to events related to negotiations GEF – strengthen partnership and regular consultation, Global Forest Partnership Strengthen collaboration and continue building engagement with other UN Conventions: UNCCD, UNCBD Bilateral agencies – AFD, DfID, USAID, JICA, SIDA, CIDA, Portuguese Technical Cooperation etc., RDBs/IFIs African Union- RECs- UN-ECA Strengthen dialogue on CC with finance ministers – during Annual Meetings and other forums Cities Alliance, local government organizations & mayors - to address urban challenges for CC NGOs – regular consultations with NGO community; exchanges and cooperation on specific topics, such as selected methodologies and sector indicators, Gender and Climate Change; Women for climate justice, etc. Research Institutions Private Sector – establish innovative partnerships on bond and insurance products, technology,	ORRU, all relevant departments.
Establish consultative process for progress review and update	Establish regular consultations with key stakeholders Create a climate change network in the Bank	ORQR, ONEC
Addressing Internal Constraints		
Enhance staff awareness and skills to address CC actions in client dialogue and operations	Scale-up coverage of staff and managers by Climate Change training programs Integrate CC modules in orientation & training programs Enhance staff skill mix, including through strategic hiring Enhance staff skills on Gender and Climate Change	ORQR, ONEC, CHRM, EADI
Enhance incentives and accountability to integrate CC actions	Provide targeted incentives to departments for integrating climate change and new financing instruments into operations given higher cost of project preparation	

ANNEX 3: CLIMATE CHANGE ACTION PLAN RESULTS-BASED FRAMEWORK FOR ADAPTATIVE CAPACITY AND CLIMATE – RESILIENT DEVELOPMENT

Goals	Expected Results	Beneficiaries	Performance Indicators	Indicative Targets & Timeframe	Assumptions
Pillar 2: Climate –Resilient Development					
Contribute to food security in rural areas	Increased food production	Population of RMC's	Proportion of African countries that have mainstreamed Adaptation to Climate Change in development policies and plans	Proportion shifts from less than 10% in 2009 to 15% by 2015	Improving agricultural infrastructure (water and energy supply and transport) will improve production and distribution of food.
Policy, Legal and Regulatory Framework Reform	Developmental policies, plans and programmes of RMCs adjusted to incorporate climate change risks Appropriate instruments (regulatory, judicial, etc.) to assist in catalyzing CRMA are put in place.	RMCs	Number of developmental policies, plans and programmes of RMCs adjusted to incorporate climate change risks Number of laws and regulatory frameworks developed.	At least 10 countries establish clear policy, legal, and regulatory reforms for addressing climate change risks by 2015	RMCs possess the technical knowledge to reform/develop regulatory and policy frameworks incorporating climate change impacts and adaptation
Capacity Building	CRMA training modules developed Country-level expertise and capacity to manage climate change development linkages enhanced Country level capacity to access additional finance strengthened Gender and Climate Change training	RMCs Bank staff	Number of RMC staff trained in CRMA	By 2015, key ministries officials trained in CRMA in 20 countries	RMCs have developed sufficient capacity in areas related to: Information generation and management, early warning, risk screening and mainstreaming of climate and gender into development planning -Capacity to develop fundable projects and leverage additional sources.
Capacity building in natural resources management and climate adaptation	Enhanced capacities for natural resources management in line with good practices and the implementation of climate adaptation	Farmers and rural populations of RMCs, Natural Resources Manager	Number of Bank funded projects and programs with training program on NRM, climate adaptation and Gender and CC	At least 10 operations and programs with training programs on NRM and climate adaptation by 2015	RMCs have increased understanding to the need for conservation of their natural resources. RMCs have improved capacity for sustainable management of natural with the integration of climate change adaptation and risk management.
Support the Development of Municipal Climate Change Plans	Cities in Africa have developed and are implementing plans that will reduce their vulnerability to climate change threats	Urban centres, municipalities	Number of cities with municipal climate change adaptation plans	At least 10 African cities have developed and are implementing climate change adaptation plans by 2015	RMCs are capable of identifying potential risks and assessing urban vulnerabilities. RMCs are mainstreaming climate change adaptation in their urban development plans and strategies at different levels.

Improved water resource management to induce sustainable agricultural development	Agriculture water management improved as a result of management practices	Farmers and rural populations of RMCs	Size of area under sustained water land and water management	Investments mobilized for increasing area under improved agriculture water management by 300.000 and 500.000 ha in 2012 and 2015, respectively	Increased investment in agricultural development in response to climate change and the need for adaptation in the agriculture and relevant sectors. Enabling policies developed and incentives are provided to mobilize African farmers to increase productivity.
Climate proofing AfDB's operations					
Climate Resilience and adaptation of investments	Toolkits and decision-making guides to help relevant operations Screening of relevant projects for climate risks Improved mainstreaming of CRMA in new Bank investments		Improved designs of Bank investments to respond to climate variability Number of investment decisions revised or made to incorporate climate change risks Number of task managers using the CRMA toolkit in the project cycle	70% of the portfolio (approved from 2009) is climate proofed by 2015 A common environmental safeguard standard that incorporates climate change is developed and in use in the Bank by 2012	The Bank has worked closely with RMCs to introduce the environmental safeguard standards and to develop the capacity to mainstream climate change into national initiatives and development programs.

ANNEX 4: INDICATIVE ACTIVITIES TO ACCOMPLISH ADAPTIVE CAPACITY AND CLIMATE RESILIENT DEVELOPMENT TARGETS

Objective	Actions	Responsibility
Pillar 2: Climate Resilient-development		
Operational approaches to scaling-up adaptation opportunities		
Scale-up support for Land & Water Resources Management	Increase AfDB's land and water-resources management lending by an average of 25% per annum during the five-year period FY11-15 through financing of: Storage of raw water to mitigate climate variability and unpredictability brought about by effects of climate change; costs incurred due to changes to water quality and quantity; adoption of water conservation and efficiency measures in water supply; adaptation measures for sanitation systems (sewerage and non-sewered systems, including reuse); Solid waste management (reduction, recycling, treatment); Renewable pumping systems for water and waste water systems waste, and provision of renewable pumping systems for water resources.	OSAN, OWAS
Scale-up support for Infrastructure & Urban Systems	Increase AfDB's lending for climate proofing key economic infrastructure and urban flood control and drainage systems by an average of 5% per annum during the five-year period FY11-15	OITC, OPSM, ONEC
Enhance synergies between disaster risk management and adaptation	Formulate a concrete plan to build on synergies, such as moving to integrate adaptation/DRM strategies where most relevant, linking vulnerability and disaster risk assessment processes.	ONEC/ORQR
Test innovative approaches in select countries	Pilot innovative approaches for adaptation with investments from the Adaptation Fund, GEF, PPCR and other TF (e.g. Portuguese Technical Cooperation Agreement for Lusophone countries)	ONEC, OSAN, OITC, OWAS
Stepping up knowledge generation & competency building		
Scale-up Knowledge generation	Critical economic sector work, impact assessment and scoping studies for business development Cutting-edge technical assistance programs delivered on demand to governments and other key stakeholders	ECON, ONEC, ODS, ORQR
Scale-up client competency building	Establish partnerships with other institutions to: Provide support to build capacity for accessing a growing set of climate financing instruments Raise country awareness of impacts and possible actions Deliver competency building through projects	ONEC, EADI, All Operational Depts
Support to policy, institutional and organization reforms		
Scale-up policy, institutional and organizational reforms	Use budget support operations to promote policies that will provide incentives to investors using priority adaptation technologies (e.g. water conservation and storage, zero-tillage cultivation) and policies which promote adaptation in key sectors (e.g. marine and river water management, coastal zone management, zero-tillage cultivation) Support RMCs in establishing weather monitoring, early warning and response systems Support RMCs in revising land tenure and property rights laws/regulations for sustainable land and forestry management	ONEC, other relevant Depts
Cross-cutting operational activities		
CC integrated in CSPs, RISPs	Incorporation of CC in CSPs and RISPs	ONEC, all relevant Departments
CC considerations included in sector strategies	Address climate change issues in forthcoming sector strategies: Urban Sector Strategy and Energy Policy Develop guidelines for mainstreaming climate change into sectoral projects	ONEC, ORPC all relevant depts.

Objective	Actions	Responsibility
Pillar 2: Climate Resilient-development		
Improved portfolio tracking of CC investments	Develop a systematic approach to tracking AfDB's CC related investments ($ and # of projects) Develop and operationalize methods for Carbon Accounting of AfDB-operations (start with energy, transport and forestry)	ORQR, ONEC, OIVP, OSAN
Develop toolkits to help include climate change aspects in knowledge products and operations	Develop toolkit to integrate climate change in Budget Support operations Provide sectoral guidelines and good practice notes in various sectors (water, agriculture, etc.) Develop screening tool for Bank projects	ORQR, ONEC, all relevant depts
Development of an outcome-based results framework	Develop core set of harmonized indicators and develop an AfDB CC M&E system	ONEC, ORQR
Partnerships and outreach		
Enhance cooperation with development partners to maximize impacts	UN System – relevant agencies - IFAD, FAO, UNEP, UNDP UNFCCC Secretariat - Coordinate participation and contribute to events related to negotiations GEF – strengthen partnership and regular consultation Strengthen collaboration and continue building engagement with the other UN Conventions: UNCCD, UNCBD Bilateral agencies - AFD, DfID, USAID, JICA, SIDA, CIDA, Portuguese Technical Cooperation etc., RDBs/IFIs African Union- RECs- UN-ECA Strengthen dialogue on CC with finance ministers – during Annual Meetings and other forums Cities Alliance, local government organizations & mayors to address urban challenges for CC Global Forest Partnership NGOs – regular consultations with NGO community; exchanges and cooperation on specific topics, such as selected methodologies and sector indicators Research Institutions Private Sector – establish innovative partnerships on bond and insurance products, technology, etc.	ORRU, all relevant depts
Establish consultative process for progress review and update	Establish regular consultations with key stakeholders Create a climate change network in the Bank	ORQR, ONEC
Addressing Internal Constraints		
Enhance Staff Awareness and Skills to address CC actions in client dialogue and operations	Scale-up coverage of staff and managers by CC training programs Integrate CC modules in orientation & training programs Enhance staff skill mix, incl. through strategic hiring	EADI, CHRM, ONEC
Enhance incentives and accountability to integrate CC actions	Provide targeted incentives to departments for integrating climate change and new financing instruments into operations given higher cost of project preparation	

ANNEX 5: EXPECTED OUTCOME - CLIMATE RESILIENT DEVELOPMENT

Sample Projects	Investments	Expected outcome
• Okavango River Basin Development Project • North Sinai Development Project • Rehabilitation of Zefta Barrage • Lower Shire Valley Irrigation Development Project • Projet d'Appui au Programme National d'Economie d'Eau d'Irrigation II • COFAMOSA Sugarcane Development Project • Agriculture Infrastructure Development Project • Programme Integré de Dvpt durable du Bassin du Niger (PIDD/BN) ABN II • Caprivi Agriculture Development Project • Necktel Dam and Infrastructure Development Project • Senegal River Basin Water & Environment Management Project • Northern Communal and Rural Infrastructure Development Project • Sugar Cane Mini Mills Feasibility Study (MIC) • Dande Smallholder Irrigation Project • Rehabilitation of Nubiria & Ismailia Canals • Niger River Basin Shared Vision Investment Programme	**1. Land and Water-Resources Management** Increased resources for financing innovative farming & water management projects (drought-resistant crops, irrigation efficiency, watershed protection) **2. Infrastructure and Urban systems** - Increased resources for financing in priority sectors (harbors and coastal zone protection, roads, water management infrastructure) - Increased resources for urban drainage systems and revision of building codes and land use planning standards to minimize the risks of climate change. **3. Climate-proofing of AfDB's operations** - Screening of relevant projects for climate risks and taking steps to reduce such risks - Improved design, location, maintenance of infrastructure to withstand adverse impacts of climate change at least cost	1. **Model for Knowledge Generation/ Competency Building** • Competencies built in Governments, communities, private sector operators for planning, implementation and monitoring climate resilient programs and projects; established early warning and response systems • Competencies built in Governments, communities, private sector operators for mobilizing and efficiently use resources made available globally • Competencies built in Regional Centres of Excellence for becoming platforms of knowledge creation and dissemination to public and private decision-makers • Key advocacy programs and networking forums organized (e.g. adaptation and risk management best-practices) • Development of toolkits and decision-making guides, including software to help relevant AfDB's operations address anticipated climate change risks in vulnerable sectors 2. **Support to policy, institutional and organization reforms in AfDB and RMC's** • Mainstreaming of climate change adaptation in key sector policies and regulations (including Agriculture and forests, marine and river water management; coastal zone management; urban drainage and solid waste management; climate proofing infrastructure investments) • Establishment of policies that will provide incentives to investors using priority adaptation technologies (e.g. water conservation and storage, crop management including zero-tillage cultivation, fisheries and livestock management)

ANNEX 6: EXPECTED OUTCOME- LOW CARBON DEVELOPMENT

Sample Projects	Investment	Expected outcome
• South Africa: Eskom Renewable Energy Investment • Morocco: Concentrated solar power (CSP) plant Ouarzazate • Egypt: Gulf of Suez Wind Farm • Mali: Scaling-up of renewable energy program • Ethiopia: Scaling-up of renewable energy program • Kenya: Menengai Geothermal • Cameroun: Aménagement hydroélectrique de Lom Pangar • Multinational: Programme Energie OMVG (Gambie-Guinée –Guinée-Bissau-Sénégal) • Cross River State: Calabar-Oban-Ekang Highway (approx 128 Km) Cross River State: Calabar-Oban-Ekang Highway (approx 128 Km)	**1. Renewable Energy** • Increased resources for financing RE projects • Upstream Project Preparation Financing for clean energy alternatives; and marketing the most bankable projects to potential developers / investors with partners **2. Energy Efficiency** • Increased resources for financing demand-side EE projects (industrial, municipal) • Increased resources for financing supply-side EE projects (power generation, transmission and distribution; and waste management) • Increased resources for financing projects sequestering methane emissions (landfills). • **3. Sustainable Transport** • Increased resources for regional and national mass rapid/multi-modal transport systems that increase access to transport and reduce the energy intensity of transportation services • Project financing for sustainable biofuels projects **4. Sustainable Land Use and Forestry Management** • Increased resources for financing projects in the land use and forestry sectors that sequester carbon • Increased resources for financing projects sequestering methane emissions (e.g. biogas	**1. A model for Knowledge Generation/ Competency Building that supports investments by AfDB and other public and private sector partners** • Competencies built in Governments, communities, private sector operators, utilities/agencies for strategic planning and budgeting; for the identification, preparation and implementation of projects, including proposals for mobilizing global funds (e.g. CIF, GEF, CDM) • Competencies built in Regional Centres of Excellence for becoming platforms of knowledge creation and dissemination to public and private decision-makers • Critical economic sector work (studies, sector reviews, etc), impact assessment and scoping studies for business development • Key advocacy programs and networking forums organized (e.g. technology forums) • Cutting-edge technical assistance programs delivered on demand to governments and other key stakeholders. • **2. Support to policy, institutional and organization reforms** • Development of a Green Growth Strategy for the Continent with clear identification of key investments required in the medium and long terms • Development and support to implementation of Nationally Appropriate Mitigation Actions (NAMAs) • Establishment of greenhouse gas inventory systems, MRV (monitoring, reporting and verification) systems • Revision/establishment of investment climate related, fiscal and key sector policies and regulations to stimulate and attract investment in clean energy sectors, including bioenergy. • Development of renewable energy, urban and transport master plans including traffic management systems- Development of REDD+ regulatory frameworks as well as other frameworks that will enable African countries to take advantage of existing and new carbon finance products and instruments.

ANNEX 7: SOURCES OF ADDITIONAL FUNDING TO IMPLEMENT THE ACTION PLAN

Global Environmental Facility (GEF) is the UNFCCC financial mechanism. Since its inception in 1991, it has allocated over $3.3 billion to climate change projects mostly renewable energy and energy efficiency. The amount approved under GEF 5 for 2010-2014 for climate change projects worldwide is US**$1.6 billion.**

GEF also manages funds available for adaptation projects, including the Strategic Priority on Adaptation of the GEF Trust Fund, the Special Climate Change Fund (SCCF) and the Least Developed Countries Fund (LDCF), amount to over $275 million. Estimated financial needs for adaptation under the LDCF and SCCF for 2010-2014 are US$ 1 billion (or US$ 250 million per year combined for LDCF and SCCF).

The Climate Investment Funds (CIFs) consists of the Clean Technology Fund and the Strategic Climate Fund managed by the World Bank with total pledges estimated at US**$6.4 billion** and jointly implemented by MDBs, including the AfDB. CIFs seek to promote scaled-up financing for demonstration, deployment and transfer of low carbon and adaptation programs in developing countries.

Adaptation Fund (AF) is expected to consist of approximately US$500 million up to 2012. As of February 2011, the total amount pledged to the Adaptation Fund, including CERs, is US$ 216.15 million and the total amount deposited, including CERs, is US$ 202.11 million. The fund is financed by 2 percent of the certified emission reductions (CERs) issued for Clean Development Mechanism (CDM) activities. African countries will have direct access to the fund and the Adaptation Fund Board (AFB) will define selection procedures. The Bank is finalizing registration as a multilateral agency to deliver projects in Africa.

The Green Climate Fund was proposed under the Copenhagen Accord, where developed countries committed to provide new and additional resources, including forestry and investment through international institutions, approaching **US$30 billion for the 2010–12 period** and to jointly mobilize **US$100 billion a year by 2020** to address the needs of developing countries. In addition, the Accord includes a decision to establish the Copenhagen Green Climate Fund as an operating entity of the financial mechanism of the Convention to support projects, programs, policies and other activities in developing countries related to mitigation, including REDD+, adaptation, capacity building, technology development and transfer. The Head of the African Delegation at the UNFCCC COP-15 in Copenhagen had requested that at least 40% of the Copenhagen Green Climate Fund should be allocated to Africa and that the African Development Bank should host and administer this allocation. This Action Plan will also serve as a tool to demonstrate Africa's capacity to absorb this allocation through a healthy pipeline of climate-resilient development projects and programs that will support Africa's shift to a low carbon climate resilient economy.

BILATERAL FUNDING SOURCES

A number of industrialized countries are in the process of setting up separate ODA-based funds to support *both mitigation and adaptation* activities in developing countries. These funds include:

The French Development Agency is the main French operator in the fight against climate change. Commitments have increased consistently in recent years reaching a total of 2.4 billion Euros in 2009 for both mitigation and adaptation, that is, an almost two-fold increase on 2008 (+93%). French aid contributes; in particular, to a joint response to climate issues in developing countries, notably those most vulnerable to climate change (deforestation, desertification, biodiversity, water, etc.). For several years, France has pledged to significantly increase its solidarity work in this field. This work will continue in the future with concrete projects in different areas, notably forestry and access to sustainable energy in the most vulnerable countries, particularly in Africa. A large proportion of bilateral activity in 2010 focused on water management in Africa.

International Climate Initiative (Germany): Since ICI was launched in 2008, the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), has initiated 184 projects with funding totalling some 360 million Euros. The projects run for up to five years. Additional capital contributed by the agencies implementing the projects and funding from other public and private-sector sources bring the total funding volume for the ICI projects to over a billion Euros. CI's 184 projects are distributed across partner countries in Asia, Central and Southeast Europe, the Newly Independent States, Central Asia, Central and

South America, the Middle East, and Africa. Almost 15 per cent of ICI's projects are located in Africa and 1% in MENA countries.

Japan's initiative: In December 2009, the Government of Japan announced an assistance of approximately US$ 15 billion, including public and private finance, of which public finance comprises approximately US$ 11 billion, as the financial assistance to developing countries up to 2012 to address climate change (announced as the "Hatoyama Initiative", hereinafter referred to as the Fast-Start Financing). This Fast-Start Financing aims to assist developing countries, especially those making efforts to reduce emission as well as those which are vulnerable to the negative impacts of climate change, taking into account the developments in the international negotiations. The Fast-Start Financing comprised two types of assistance. One is Official Development Assistance (ODA) such as grant aid, technical cooperation, concessional loan by MOFA/JICA and contribution to multilateral funds (US$ 7.2 billion out of US$ 15 billion). The other is Other Official Flow (OOF), which includes official financing in collaboration with the private sector such as the preferential loan by the Japan Bank of International Cooperation (JBIC) (US$ 7.8 billion out of US$ 15 billion). ICI's work focuses on three areas: (i) Building a climate-friendly economy, (ii) Adaption to climate change and (iii) Conserving and making sustainable use of natural carbon reservoirs / REDD+ (reducing emissions from deforestation and forest degradation).

INTERNAL BANK FUNDS

Bilateral Trust Funds: The Bank has several bilateral trust funds that will be deployed to fund some of the activities in the Action Plan. These Trust Funds currently have about US$20 million available for commitment.

ClimDev-Africa Special Fund: In partnership with UNECA and AUC, the Bank is implementing the ClimDev-Africa program. The Bank has established the ClimDev-Africa Special Fund which is a multi donor facility to finance ClimDev-Africa program, estimated at US**$135 million** between 2010 and 2012.

*Clean Energy Bonds: the Ban*k offered its first clean energy bonds to Japanese investors during the month of March 2010. The proceeds of the issue, estimated at about US**$100 million**, will be used to finance the Bank's rich and expanding portfolio of clean energy projects included in this Action Plan.

The Sustainable Energy Fund for Africa: The Danish Government intends to provide up to DKK 300 million (about US**$5*6 million)*** *over th*e next five years (between 2012 and 2017) to the Sustainable Energy Initiative through a trust fund (hereafter referred to as the Sustainable Energy Fund for Africa - SEFA) to be managed by the African Development Bank. The Fund's design is at an advanced stage and implementation is expected to start late 2011.

The Congo Basin Forest Fund **(**CBFF): The CBFF is based at the Bank, and was created in June 2008 to take preventive measures to protect the Congo Basin Forest and to support transformative and innovative proposals which will develop the capacity of the people and institutions of the Congo Basin to enable them to manage their forests, help local communities find livelihoods that are consistent with the conservation of forests and reduce the rate of deforestation. The CBFF received an initial grant of GBP 100 million from the UK and Norway Governments.