
**BANK GROUP CLIMATE RISK MANAGEMENT AND
ADAPTATION STRATEGY (CRMA)***

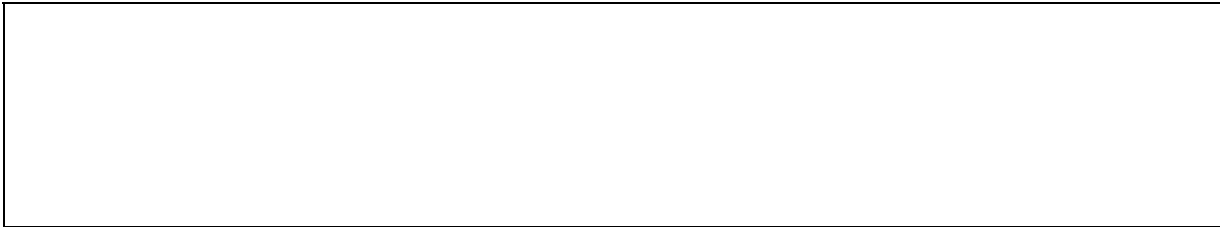


Table of Contents

List of Abbreviations and Acronyms, the CRMA Logframe, Executive Summary(i – vii)

1. INTRODUCTION.....	1
1.1 BACKGROUND	1
1.2 THE CLIMATE RISK MANAGEMENT AND ADAPTATION APPROACH PAPER	1
1.3 THE RECOMMENDATIONS OF THE PRESIDENT’S WORKING GROUP ON CLIAMATE CHANGE:	2
1.4 CONSULTATION PROCESS AND LESSONS LEARNT:	3
2. FACING UP TO CLIMATE CHANGE RISKS IN AFRICA	4
2.1 SCOPE, SCALE AND TIME-FRAME OF RISKS	4
2.2 CLIMATE RISK MANAGEMENT AND ADAPTATION OPTIONS FOR AFRICA	5
2.3 CHALLENGES AND OPPORTUNITIES	8
3. CLIMATE RISK MANAGEMENT AND ADAPTATION STRATEGY	9
3.1 GUIDING PRINCIPLES.....	9
3.2 GOAL AND OBJECTIVES.....	10
3.3 AREAS OF INTERVENTION	10
3.3.1 CLIMATE PROOFING INVESTMENTS.....	10
3.3.2 POLICY, LEGAL AND REGULATORY REFORMS	11
3.3.3 KNOWLEDGE GENERATION AND CAPACITY BUILDING	12
3.4 MODALITIES AND FINANCING INSTRUMENTS FOR CRMA STRATEGY	12
4. IMPLEMENTATION FRAMEWORK AND INSTITUTIONAL ACTIONS	14
5. PARTNERSHIPS.....	15
6. CONCLUSIONS.....	17

Annex 1: Proposed Climate Risk Categorisation Scheme

Annex 2: Glossary of Climate Change Terminology

Acronyms and Abbreviations

AfDB	African Development Bank
AfDB Group	African Development Bank, African Development Fund, and Trust Funds managed by the Bank
AfDF	African Development Fund
AU	African Union
AUC	Commission of the African Union
CDM	Clean Development Mechanism
CEIF	Clean Energy Investment Framework
<i>ClimDev-Africa</i>	Action Plan for Africa on Climate Information for Development Needs
CRMA	Climate Risk Management and Adaptation
CSP	Countries Strategy Paper
DFI	Development finance institution
DFID	Department for International Development [bilateral development agency of the United Kingdom]
ECA	United Nations Economic Commission for Africa [See UNECA]
ECON	Chief Economist complex
ESIAP	Environmental and Social Impact Assessment Procedures
ESIA	Environmental and Social Impact Assessment
ESW	Economic and Sector Work
G8 States	Group of seven leading industrialized market economies (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States of America) <i>plus</i> the Russian Federation
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
IPCC-TGICA	IPCC Task Group on Data and Scenario Support for Impact and Climate Assessment
JBIC	Japanese Bank for International Cooperation
JICA	Japan International Cooperation Agency
LDCF	Least Developed Countries Fund
MDB	Multilateral development bank
MDG	Millennium Development Goal
OSUS	Gender, Climate and Sustainable Development Unit
RDB	Regional development bank
REC	Regional Economic Community
RMC	Regional Member Country
SIDA	Swedish International Cooperation Development Agency
UNDP	United Nation Development Program
UNECA	United Nations Economic Commission For Africa [See ECA]
UNEP	United Nation Environment Program
UNFCCC	United Nation Framework Convention on Climate Change
UNISDR	United Nations International Strategy for Disaster Reduction
UNREDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
USAID	United States Agency for International Development
WHO	World Health Organisation
WFP	United Nations World Food Program
WMO	World Meteorological Organization

THE CLIMATE RISK MANAGEMENT AND ADAPTATION STRATEGY RESULTS FRAMEWORK

OBJECTIVES	EXPECTED IMPACT & RESULTS	REACH	PERFORMANCE INDICATORS (MEANS OF VERIFICATION-)	BANK'S INDICATIVE TARGET & TIMEFRAME	ASSUMPTIONS, RISKS & BANK MITIGATION MEASURES
<p><u>STRATEGIC GOAL</u></p> <p>To ensure that progress is maintained by African countries towards the eradication of absolute poverty and there is steady improvement of people's living conditions in spite of climate change.</p>	<p><u>Long-Term Impact</u></p> <p>1. Economic growth and livelihoods improved on the African Continent;</p>	<p><u>Beneficiaries</u></p> <p>1. Local communities and individual households 2. RMC Governments 3. Business establishments, 4. Civil Society</p>	<p><u>Indicators</u></p> <p>1.1 GNP growth in selected African Countries, 2. Progress towards the achievement of the MDG targets</p> <p><u>Source of Data:</u> UNFCC, International development partners and Bank's annual reports.</p>	<p>1. The average HDI value for African countries increased from 2005 levels by at least 25% by 2015. 2. Progress towards achieving MDGs by at least 3% by 2015.</p>	<p><u>Assumptions:</u></p> <p>1. Bank quickly develops its own internal institutional capacity for implementing the CRMA 2. Bank is able to mobilize additional concessional and innovative finance for RMCs to cover higher costs and risks</p> <p><u>Risks:</u></p> <p>1. Long time required to achieve successful "convincing" of RMCs to address CRMA.</p>
<p><u>FINAL OBJECTIVES OF THE INITIATIVE</u></p> <p>1. To reduce vulnerability to climate variability and change and promote climate resilience in development investments; 2. To build capacity, knowledge and ensure sustainability through policy and regulatory reform; of climate change.</p>	<p><u>Final Results of the Initiative</u></p> <p>1. Increased number of development investments that are climate-proofed. 2. Enhanced capacity of RMCs to respond to climate variability.</p>	<p><u>Beneficiaries</u></p> <p>1. RMCs 2. Bank Staff 3. Private sector operators 4. Local communities 5. Global community</p>	<p><u>Indicators</u></p> <p>1. Number of Bank investments which are climate-proofed; 2. Number of RMC agencies and staff capacity in CRMA strengthened; 3. Number of RMC policy reforms and regulatory framework established to respond to CRMA 4. Number of Bank staff trained in CRMA tools</p> <p><u>Source of Data:</u> Bank's annual report</p>	<p>1. By the end of 2009; 25% of portfolio approved from 2007 to date is targeted for climate resilience; 2. By 2010, all relevant staff of key ministries in RMCs are trained in CRMA; 3. At least 10 RMCs establish and are implementing clear CRMA frameworks by 2010; 4. All Bank operations staff</p>	<p>3. Slippages in government implementation because of weak institutions capacity 4. Difficulties that the Bank might encounter in working with other organizations</p> <p><u>Mitigating</u></p>

				<p>trained in CRMA by 2010.</p> <p>5. CRMA mainstreamed into all Bank investment projects by end of 2010.</p>	<p>Measures:</p> <p>1. Increased effective and accelerated strengthening of internal capacity of the Bank operation staff, including that of the newly created OSUS, to engage RMCs and support their efforts at developing and implementing CRMAs at all levels</p> <p>2. Enhanced access to additional financial and programming instruments suitable to the special needs of RMCs in addressing CRMA</p> <p>3. Collaboration with other MDBs and the UN Agencies on a coordinated approach to climate change, particularly financing, capacity building, monitoring and knowledge management.</p>
<p>INTERMEDIATE OUTCOME</p> <p>AREAS OF INTERVENTION:</p> <p>1. Climate Resilience and adaptation of investments</p>	<p><u>Intermediate Results of the initiative</u></p> <p>1.1 Toolkits and decision-making guides to help relevant operations address anticipated climate change</p>	<p><u>Beneficiaries</u></p>	<p><u>Indicators of Medium-Term Outcomes & Data Sources:</u></p> <p>1.1 Improved designs of Bank investments to respond to climate variability</p>	<p><u>Bank's Indicative Target</u></p> <p>1.1 At least 25% of the current portfolio (approved from 2007 to date) is climate proofed by</p>	

<p>2. Policy, Legal and Regulatory Framework reform</p> <p>3. Capacity Building</p>	<p>risks in vulnerable sectors developed</p> <p>1.2 Screening of relevant projects for climate risks introduced</p> <p>1.3 Improved mainstreaming of CRMA in new Bank investments.</p> <p>2.1 Developmental policies, plans and programmes of RMCs adjusted to incorporate climate change risks.</p> <p>2.2 Appropriate instruments (regulatory, judicial, etc) to assist in catalyzing CRMA are put in place.</p> <p>2.3 RMCs are supported in the post-Kyoto climate change negotiations.</p> <p>3.1 CRMA training modules developed</p> <p>3.2 Country-level expertise and capacity to manage climate change-development linkages enhanced</p> <p>3.3 Country level capacity to access additional finance strengthened.</p> <p>3.4 Staff and managers exposed to specialized training programs on climate change as appropriate.</p>	<p>1. Local Communities</p> <p>2. Civil Society</p> <p>3. RMCs</p> <p>4. Bank staff</p>	<p>1.2 Number of investment decisions revised or made to incorporate climate change risks.</p> <p>1.3 Number of task managers using the CRMA toolkit in the project cycle</p> <p>2.1 Number of developmental policies, plans and programmes of RMCs adjusted to incorporate climate change risks.</p> <p>2.2 Number of laws and regulatory frameworks developed</p> <p>2.3 Percentage change in the capacity of RMCs to engage in the Post-Kyoto climate change negotiations.</p> <p>3.1 Number of task managers and RMC project staff trained in CRMA</p> <p>3.2 Percentage change in stakeholders' capacities in the RMCs to manage climate change.</p> <p>3.3 Percentage change in additional resources RMCs have accessed to address the challenges of climate change.</p> <p>3.4 Number of staff and managers engaged in capacity development activities.</p> <p>Source of Data:</p> <p>1. Bank annual report</p>	<p>2009, and additional 50% by 2011.</p> <p>1.2 A common environmental safeguard standard that incorporates climate change is developed and in use in the Bank by 2010.</p> <p>2. At least 10 countries establish clear policy, legal, and regulatory reforms for addressing climate change risks by 2011</p> <p>3.1 By 2010, all RMC key ministries officials and all relevant Bank Operations staff trained in CRMA.</p> <p>3.2 At least 5 additional RMCs access additional resources from Carbon markets by 2010.</p>	
<p><u>INPUTS AND PROGRAM ACTIVITIES</u></p> <p>1. Provide additional financial resource on a timely basis to undertake climate proofing work</p>	<p>1. Additional budgetary and programming resources mobilised</p>	<p>Beneficiaries</p> <p>1. Local communities</p> <p>2. RMCs</p>	<p><u>Indicators of immediate outputs</u></p> <p>1. Number of operations screened and climate proofed</p> <p>2. Number of CSPs mainstreaming CRMA</p>	<p><u>Bank's Indicative Target</u></p> <p>1. At least UA 10 million mobilised from bilateral resources annually by 2010;</p> <p>2. Two (2) CSPs by the end of 2009 and an additional three</p>	

<p>2. Initiate dialogue with RMCs to mainstream CRMA activities in selected CSPs.</p> <p>3. Increased access to training activities</p>	<p>2. Selected CSPs address CRMA at the design stage;</p> <p>3. Executive training on climate change and development for Bank Management staff and Directors organized in 2009</p>	<p>3. Bank staff</p>	<p>3. Increased number of training offered</p> <p>Source of Data: 1. AfDB disbursement and annual reports</p>	<p>by the end of 2011 mainstream CRMA;</p> <p>3. Four (4) CRMA training opportunities offered in 2009 and additional 4 in 2010, and 2011.</p>	
<p><u>BANK INSTITUTIONAL APPROACHES</u></p> <p>Increased institutional capacity of the bank to work with RMCs</p>	<p>1. OSUS Operationalized with full staff capacity</p> <p>2. Partnerships & cooperation with other organizations (multilateral and bilateral) enhanced.</p> <p>3. OSUS' engagement with other Departments and divisions in the Bank streamlined and strengthened</p>	<p>Beneficiaries</p> <p>1. Local Communities</p> <p>2. Multilateral and bilateral donors</p> <p>3. All Bank operations staff</p>	<p><u>Indicators</u></p> <p>1. Recruitment of all approved climate change expert positions completed.</p> <p>2. OSUS strategy to engage other Departments and divisions approved by Bank management</p> <p><u>Sources of Data:</u> AfDB internal documents</p>	<p><u>Bank's Indicative Target</u></p> <p>1. Two climate risk and adaptation experts recruited in 2009 and additional four recruited in 2010, in OSUS.</p>	

Executive Summary

1. Climate change poses serious threats to sustained economic growth and poverty reduction, the quality of life, and political stability in the world. According to the IPCC, Africa is the most vulnerable continent to climate change and climate variability; and the situation is aggravated by the interaction of multiple stresses occurring at various levels, compounded by low adaptive capacity. Climate change experts project that all sub-regions of the continent will experience a temperature rise very likely larger than the global mean annual warming. At the same time, most parts of the continent are expected to experience reduced average annual rainfall and increased aridity and droughts. The combination of reduced rainfall and hotter temperatures is expected to result in a net drying and increased aridity for a greater proportion of the continent. It is important to note that all African countries are likely to be drastically affected by climate change. In the light of this mounting evidence, the Heads of State and Government of the G8 States, at their Gleneagles Summit in July 2005, called upon the World Bank and Regional Development Banks (RDBs) to prepare specific proposals on challenges related to climate change and poverty reduction.

2. The present Bank strategy on Climate Risk Management and Adaptation is based on lessons learnt, as well as several regional stakeholder consultation forums and the recommendations of the President's Working Group on Climate Change. The overall goal of the Bank's Climate Risk Management and Adaptation Strategy (CRMA) is to ensure progress towards eradication of poverty and contribute to sustainable improvement in people's livelihoods taking into account CRMA. The specific objectives are: (i) To reduce vulnerability within the RMCs to climate variability and promote climate resilience in past and future Bank-financed development investments making them more effective; (ii) To build capacity and knowledge within the RMCs to address the challenges of climate change and ensure sustainability through policy and regulatory reforms.

3. In order to achieve the above-mentioned objectives, the CRMA will support three main areas of intervention: (i) **"Climate Proofing" Investments** will include actions to ensure that development efforts are protected from negative impacts of climate change, climate variability, and extreme weather events and to ensure that climate-friendly development strategies are pursued to delay and reduce damages caused by climate change. (ii) **Policy, Legal and Regulatory Reforms:** Considering that climate change is a new area in most RMCs, there is a need to support the development of policies that can address additional climate change related risks as well as strengthen legal and regulatory reforms to create an enabling environment for the implementation of climate risk management and adaptation. (iii) **Knowledge Generation and Capacity Building:** The absence of climate relevant information and the limited capacity within the continent to mainstream climate change is a key constraint to managing climate risks. The Bank will use available global financial resources as well as its own investment windows to address the specific CRMA related activities in its operations, as appropriate..

4. The implementation of the Bank's CRMA will be mainstreamed in all aspects of operations. Climate risks and vulnerabilities will be more adequately reflected in the Bank Group's Country Strategy Papers (CSPs) and regional strategy frameworks that set the Bank's operational priorities in individual RMCs and sub-regions. The Bank will develop easily applicable Climate Risk Analysis Frameworks (CRAFs) and corresponding methods, tools and training for use at sub-regional, country, sector, programme and project levels. As regards due diligence, task managers in each Operations Complex department will carry out a quick screening of project and programme proposals using computer based tools to identify country, region and sector, specific climate risks during project design. Procedures currently in force for conducting operations due-diligence will be revised comprehensively to incorporate climate

risks and to pay closer attention to the multiple vulnerabilities that put Africa at greater risk than other major regions of the world. Similarly, the Bank's operations safeguards need to be revised. In this regard, the Bank's Environment and Social Impact Assessment (ESIA) guidelines will be replaced by a new, more comprehensive Environment, Climate and Social Impact Assessment (ECSIA) guidelines, taking climate change vulnerabilities more fully into account. Furthermore, the Bank has already revised project appraisal report formats and programming documents (such as CSPs) to include a dedicated section on climate change risk management. Further revisions are on-going, specifically with regards to the Bank's environmental and social impact assessment guidelines to clearly address climate risk management and adaptation issues.

5. The Bank's **Gender, Climate Change, and Sustainable Development Unit (OSUS)** will be strengthened through increased staffing. In addition, emphasis will be placed on upgrading the climate risk management and adaptation skills of Bank staff in all Complexes. The CRMA results framework is aligned with the regional targets as well as the Bank's Results Framework. Monitoring will be undertaken at two levels: (i) progress related to the implementation of climate risk management and adaptation measures in the Bank's investments. In this regard, the Bank's institutional KPIs for 2009 already include an indicator on addressing climate change in the Bank's investment operations. (ii) Monitoring the country level outcomes as relates to climate change resilience.

6. In conclusion, the African Development Bank is committed to support its member countries in this process. The Bank's Climate Risk Management and Adaptation Strategy has outlined key areas of intervention which are of priority importance to manage the risks of climate change and continue to enhance the capacity of RMCs to meet their national development targets as well as the MDGs. The Boards of Directors are requested to consider the Bank Group's Climate Risk Management and Adaptation Strategy for approval.

1. INTRODUCTION

1.1 Background

1.1.1 Climate change poses serious threats to sustained economic growth and poverty reduction, the quality of life, and political stability in the world. Two reports: the 2007 *Fourth Assessment Report* (AR4) of the Intergovernmental Panel on Climate Change (IPCC)¹ and the *Stern Review*² have shed light on the phenomenon and the risks and challenges that it presents. IPCC presented empirical evidence linking human socio-economic activities to the emission of greenhouse gases (GHGs), and linking the latter to climate change. The Stern Review presented a comprehensive cost-benefit analysis of concerted response to climate change. The Review estimated that, under the ‘do-nothing’ option, climate change could cause a world-wide economic welfare loss equivalent to a permanent loss of 5% of average per-capita consumption. This rises as high as 20% when a wider range of environmental and social impacts are included. The Review reckons that effective measures to reduce GHG emissions at an annualised cost of about 1% of global GDP would mitigate *future* climate change and avert welfare losses.

1.1.2 While Africa contributes little to the total greenhouse gas emissions in the atmosphere, it will bear the brunt of the negative impacts of resulting climate change. African leadership, through the African Union and several sectoral Ministerial Conferences, is increasingly cognisant of the developmental challenges posed by a changing climate and has placed considerable priority to addressing the adverse impacts of climate change in the continent. For instance, the Eighth Ordinary Session of the African Union in January 2007 urged member states and regional Economic Communities (RECs) in collaboration with the private sector, civil society and development partners to integrate climate change considerations into development strategies and programmes at national and regional levels.

1.1.3 Considering that the developed countries are responsible for most of the greenhouse gas concentrations in the atmosphere, the Heads of State and Government of the G8 States, at their Gleneagles Summit in July 2005, called upon the World Bank and Regional Development Banks (RDBs) to prepare specific proposals on three interrelated challenges: increasing access to quality energy supplies especially for the world’s poor; reducing global emission of GHGs, mainly by promoting clean energy development; and adapting to increasing climate variability and extreme weather events. At subsequent summit meetings at St. Petersburg (in July 2006), Heiligendamm (in June 2007), and Hokkaido Toyako (in July 2008) the G8 Leaders, and their counterparts from five major developing countries, reiterated their commitments on these three challenges.

1.2 The Climate Risk Management and Adaptation Approach Paper

1.2.1 In April 2008, Management presented to the Board of Directors an approach paper on the proposed Bank group *Climate Risk Management and Adaptation Strategy*: The following issues were raised for further guidance to Management and have been integrated in the current strategy:

1.2.2 **Demand from the RMCs:** Given the increasing realisation that climate change will have serious implications on RMCs’ to meet their food security and livelihood needs, recognition of which was voiced at the AU 2007 Summit urging the integration of climate change issues in the development process, the Bank should create awareness at all levels. More and more countries are requesting Bank support for guidance and solutions for example, currently Bank teams are working with Morocco and Zambia to address climate change related issues including supporting technical studies. While climate proofing will constitute an additional parameter to due diligence, it must not be seen to add an additional layer of bureaucracy or increase project implementation time because it will be integrated, to the extent possible, seamlessly into normal Bank processes.

¹ IPCC, Working Group 1: “*Climate Change 2007 - Summary for Policymakers*”, released in February 2007.

² Stern Review: “*Economic of Climate Change*”; November 2006

1.2.3 Bank's strategic priority areas: The present CRMA is fully aligned with the Bank's strategic priorities and addresses intervention areas which are relevant to infrastructure development including rural infrastructure as well as governance and private sector operations;

1.2.4 Partnerships: The Bank realises that the work on climate risk management and adaptation is a huge undertaking and no single stakeholder can address all the challenges alone. As such, the Bank has already developed close linkages with key partners such as the World Bank and DfID. Discussions with other partners are on-going (see table 1 on partnerships).

1.2.5 Clean Energy Investment Framework (CEIF): While the present strategy is related to adaptation, the Bank's clean energy investment framework provides greater impetus to Africa's development through energy security as well as generating new areas of financial resources such as from carbon markets. Therefore, the clean energy investment framework complements the work on climate risk management and adaptation by addressing clean and renewable energy solutions which eventually addresses climate risk mitigation. The Bank's Clean Energy Investment Framework was approved in March 2008. Progress towards the CEIF implementation has been achieved through a three pronged approach: Firstly, the Financing Small Scale Energy Users programme (FINESSE) has supported several Bank projects and CSPs in addressing renewable energy issues in the programme design and implementation framework. This support was useful in identifying key entry points and sustainability of Bank interventions regarding renewable energy. Moreover, in 2008 the Bank's infrastructure department has developed hydropower projects which aimed to increase access to energy including rural electrification. In addition, the Bank's private sector department has also supported the design and implementation of renewable energy projects in 2008. Furthermore, OPSM undertook a training of 25 investment officers in Clean Development Mechanism (CDM) preparation processes. As a result, for example, the Morocco OLEA Capital Project, the Nigeria Nitrogenous Fertilizer Plant and the Uganda Buseruka Hydropower Project include CDM options in their design. Starting 2009, the Bank will support RMCs to develop CDM projects by providing technical assistance and training for project promoters and Bank's staff to get them through the main stages of the CDM project cycle. First results are the potential upgrade of an Egyptian gas fired power plant and likewise in Morocco.

1.2.6 Institutional set-up: The Bank's Gender, Climate Change and Sustainable Development Unit (OSUS) was created in July 2008 in response to the concern for greater focus on results regarding the key cross-cutting issues. The newly created Unit would provide the visibility and clear lines of responsibility as well as accountability in mainstreaming climate change (further details are explained in section 4.4)

1.3 The Recommendations of the President's Working Group on Climate Change:

1.3.1 The President's Working Group Seven on Climate Change recommended the following road-map for the Bank's engagement in addressing climate change, which have been fully incorporated in the areas of intervention under this strategy:

- The Bank will support RMCs' adaptation to climate change through due diligence on climate risk management in Bank Group operations. This would include:
 - More systematic "climate-proofing" of agriculture, infrastructure, natural resources management and other projects and programs that are climate sensitive in order to protect Bank investments from risks of climate impacts;
 - Greater selectivity and focus on results will guide the design of interventions, which would further be strengthened by review at country teams;

- The Bank will support country-level knowledge management such as the ClimDev-Africa Programme as well as capacity building and investments in order to ensure that countries can continue meeting their development objectives in an environment of rising climate risks.
- The WG also recommended that the Bank would provide selective support to mitigation in order to contribute to reduced GHG emissions which have resulted from deforestation and land degradation. The Bank's main vehicle for this support would be through the focused efforts to address deforestation, specifically, leveraging the Congo Basin Forest Fund. Mainstreaming access to clean energy and promoting energy efficiency, in line with the Clean Energy Investment Framework, would also be an area of focus for the Bank in order to further accelerate climate risk management. This is envisaged to be done through capacity building, support to carbon financing and catalytic resource mobilization as well as enhancing and informing existing areas of focus, and making better use of the core operational program.

1.4 Consultation Process and Lessons Learnt

1.4.1 In collaboration with the World Bank, the Bank Group held a series of external stakeholder consultations on the proposed strategy. Stakeholders drawn from public and private sectors in Africa's sub-regions participated in the consultations that were held in May and June 2008 in Tunisia, South Africa, Ethiopia, and Senegal. The consulted stakeholders supported the Bank's proposed intervention areas as outlined in the approach paper and emphasised the need to provide adequate financial assistance to implement adaptation interventions. The suggestions and comments from the consultations and the extensive internal Bank reviews have guided the finalisation of the current Bank CRMA strategy.

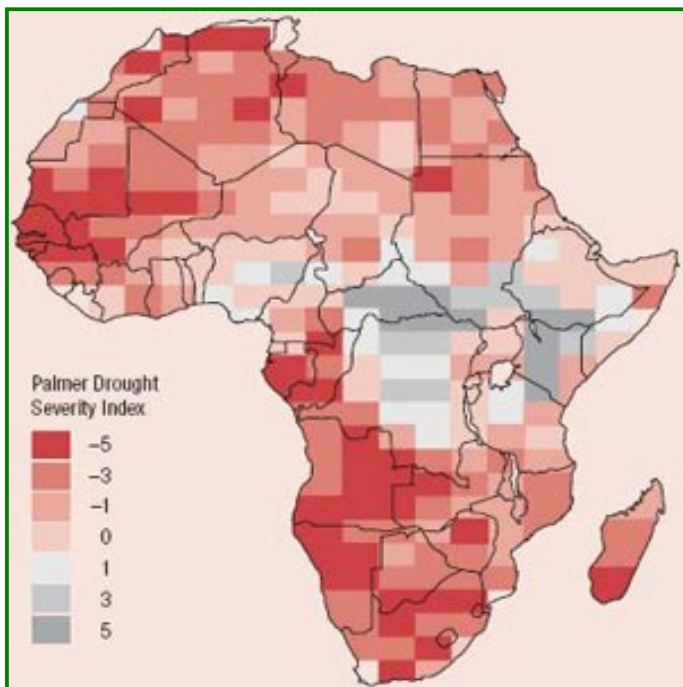
1.4.2 The following lessons have been drawn from the Bank's consultation process as well as the experience of sister institutions:

- It is important that RMCs should own the climate risk management and adaptation process and that it should be addressed at all levels in their respective development planning process;
- Capacity building and legitimacy of national institutions in climate risk management will promote sustainability of actions meant to address climate change issues nationally and regionally;
- Gender issues should be clearly identified in all climate risk management and adaptation options and effective mainstreaming of these issues should be a key feature of any proposed option;
- Participation of local communities in the design of options for climate adaptation will be important in order to ensure that indigenous knowledge and methods which have proven to be efficient and effective are adequately used;
- New financing sources and instruments should be developed and accessed in order to address the increased cost of mainstreaming adaptation in the development process;
- In the implementation of the present Bank CRMA strategy, clear lines of accountability, monitoring and reporting will be established in order to ensure that the planned activities are properly implemented and accounted for.

2. FACING UP TO CLIMATE CHANGE RISKS IN AFRICA

2.1 Scope, Scale and Time-Frame of Risks

2.1.1 The impact of climate change on development is multifaceted. **First**, meteorological and hydrological extremes and their impacts, such as heat waves, droughts, sea level rise, storms and floods pose direct threats to lives, livelihoods, and socio-economic assets. Small island states are specifically vulnerable to tropical cyclones and storm surges in addition to the limited availability of natural resources such as fresh water and land use patterns. **Second**, climate variability has a major impact on the performance of developing economies especially, because of their high



dependence on natural resources, including rain-fed agriculture. **Third**, climate change can cause the under-performance of investments (e.g., new crops or irrigation investments resulting in low returns if rainfall either increases or decreases substantially). **Fourth**, climate uncertainty and unpredictability can be a powerful deterrent to investment, permanently reducing economic growth. **Fifth**, climate variability and extreme events compromise the sustainability and performance of economic and social infrastructure assets and reduce the economic and financial rates of return. **Sixth**, the poor suffer disproportionately from climate change phenomena, undermining the effectiveness of poverty reduction efforts.

Figure 2.1: Projected Drought by Mid Century

2.1.2 According to the IPCC,³ Africa is the most vulnerable continent to climate change and climate variability; and the situation is aggravated by the interaction of multiple stresses occurring at various levels, compounded by low adaptive capacity. Climate change experts project that all sub-regions of the continent will experience a temperature rise very likely larger than the global mean annual warming.⁴ At the same time, most parts of the continent are expected to experience reduced average annual rainfall and increased aridity and droughts. The combination of reduced rainfall and hotter temperatures is expected to result in a net drying and increased aridity for a greater proportion of the continent (**Figure 2.1**). It is important to note that all African countries are likely to be drastically affected by climate change. In addition and more recently, the G20 meetings in London have explicitly requested MDBs to take a more proactive role in promoting clean energy and “green transition”. While Africa’s role in the causes of GHG

³ IPCC, Working Group 2: “*Climate Change 2007 – Impacts, Adaptation and Vulnerability*”; Chapter 9: “Africa”, p.433-467.

⁴ IPCC, Working Group 1: “*Climate Change 2007 – The Physical Science Basis*”; Chapter 11: “Regional Climate Projections”

is limited, there is a continuous need to address mitigation through the promotion of low carbon technology and infrastructure options which clearly address climate risk mitigation.

2.1.3 The loss of livelihoods due to drought is a major trigger for population movements, which can cause additional disease burdens. Droughts, especially in rural areas, have a tendency to influence migration into cities, increasing urbanization and stressing the socio-economic conditions already exacerbated by high levels of city population growth. It is estimated that 72% of the dwellers in African cities live in slums that, having particularly poor drainage facilities, are especially prone to flooding and ill health. Over twenty five percent of Africa's population lives along a 100 km-long coastal strip. Three regions are especially vulnerable, both from the population settlement areas and ecosystem perspectives – the East African coastline between Kenya and South Mozambique, the Red Sea coastal area and the West African coast. A Sea-level Rise of 0.5m as projected by the IPCC by mid- Century could result in losses equivalent to more than 10 percent of the current GDP of affected countries.

2.1.4 Africa's climate risk exposure is exacerbated by a range of endemic structural vulnerabilities. At the same time, these vulnerabilities are likely to be aggravated by climate change. The dominant structural vulnerability is endemic and wide-spread poverty. In sub-Saharan Africa, three out of four people live on less than US\$ 2 a day and climate-driven reduction in GDP would increase the number of people below the US\$2 a day poverty line by 2100 (100 million in Africa).

2.1.5 Women are increasingly hit hard by climate change. In most African countries, society looks primarily to women to feed their families. But, this task has grown heavier as the yields of the main staples have become increasingly uncertain, with highly variable rainfall patterns. Entrenched gender inequalities in rights over land resources and access to technology, and information hamper women's capacity to manage current climate risks and adapt their livelihoods to long-term climate change trends. The spread of malaria and other infectious diseases to new areas will put expectant women, infants and children with no previous immunity at greater risk. Through its 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 frameworks.

2.2 Climate Risk Management and Adaptation Options for Africa

2.2.1 While climate change may bring benefits to some areas, on the whole its range of negative impacts and their outcomes far outweigh the few benefits. Countries need to simultaneously implement three prudent responses (**Figure 2.2**): **First and most immediately, they must develop adequate capacities to manage present climate risks.** Many countries already have policies and plans to manage risks such as financial risk, health risks, agricultural risks and energy supply risks. Responses to climate variability and change, including extreme events, should also be included and addressed in the same national risk strategies. Such an approach would strengthen decision-making processes by requiring that specific programs and projects include strategies and measures to manage risks arising from climate variability and change.

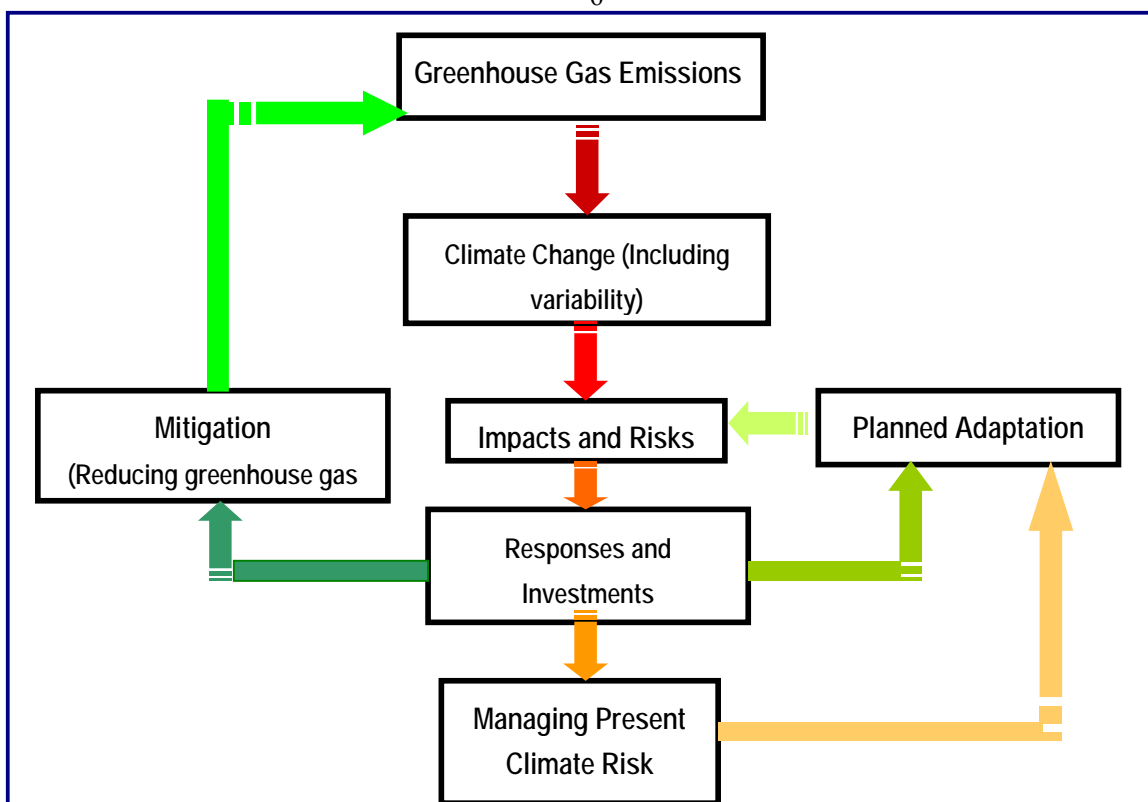


Figure 2.2: Climate Risk Management and Adaptation Framework (Human Development Report, 2007/ 2008).

2.2.2 Secondly, societies need to adapt (See Box 2.1 for examples of adaptation strategies) themselves to changing and changed climate conditions. Through *adaptation*, individual local communities and entire nations aim to preserve themselves and maintain their welfare in the face of long-term climate change and its impacts on the environment. It involves countries and communities progressively introducing fundamental changes – in the structure of their economies, production processes and technologies, livelihoods, consumption patterns, value systems, organisation and governance, etc – to be in greater consonance with a permanently changed climate or with well established trends of a changing climate. Adaptation is in fundamental ways inherently local – as the direct impacts of climate change are felt locally. Response measures therefore need to be tailored to local circumstances. However, for these efforts to be robust, they must be guided and supported by national policies and strategies.

2.2.3 Thirdly, the international community, under a successor to the Kyoto Protocol, needs to renew its commitment to implementing wide-ranging and effective measures to significantly reduce GHG emissions, towards *mitigation* of climate change and its impacts in the longer term. Considering that Africa produces less than 5% of global GHG emissions, and has contributed even less to past emissions, effective management of climate risks and adaptation to long-term climate change are African countries' priority responses to climate change. **Therefore, the most effective approach is the integration of management of present climate risks emanating from extreme events into long-term adaptation strategies in order to build long-term resilience to withstand future changes in climate-related risks.**

2.2.4 Given that efforts to manage climate- related risks are connected to so many aspects of economic development, implementation of adaptation activities is likely to be more successful if climate risk management is embedded within broader development efforts. Several African countries have prepared their Poverty Reduction Strategies, as well as National Adaptation Programs of Actions (NAPAs) and other adaptation plans. Ideally, these adaptation plans, ought to be embedded within the PRSP process, leading to more coherent planning and increased funding for key adaptation priorities.

2.2.5 Unfortunately, this is not the case and African policymakers will increasingly face the challenge of mainstreaming CRMA across relevant sectors and sector policies and developing an enabling policy and institutional environment that fosters action by a broad range of players and helps successful initiatives to replicate. A typical Risk-Based Approach to mainstreaming CRMA is presented in **Figure 2.3**.

Box 2.1. Examples of Adaptation

The following are a few examples of possible adaptation to climate change:

- ◆ The development of new strains of drought-resistant crops or livestock that are better suited to the changed growing conditions – say, hotter temperatures, shorter, more unpredictable rainfall pattern, etc;
- ◆ Evolving new technical and social standards for the siting of human settlements and the construction of individual dwellings to maintain ambient temperature and humidity with minimum energy consumption per capita.
- ◆ A behaviour change in the direction of greater energy efficiency, water conservation, and greater social valuation of natural ecosystems such as forests all would constitute expressions of adaptation to the realities of climate change.

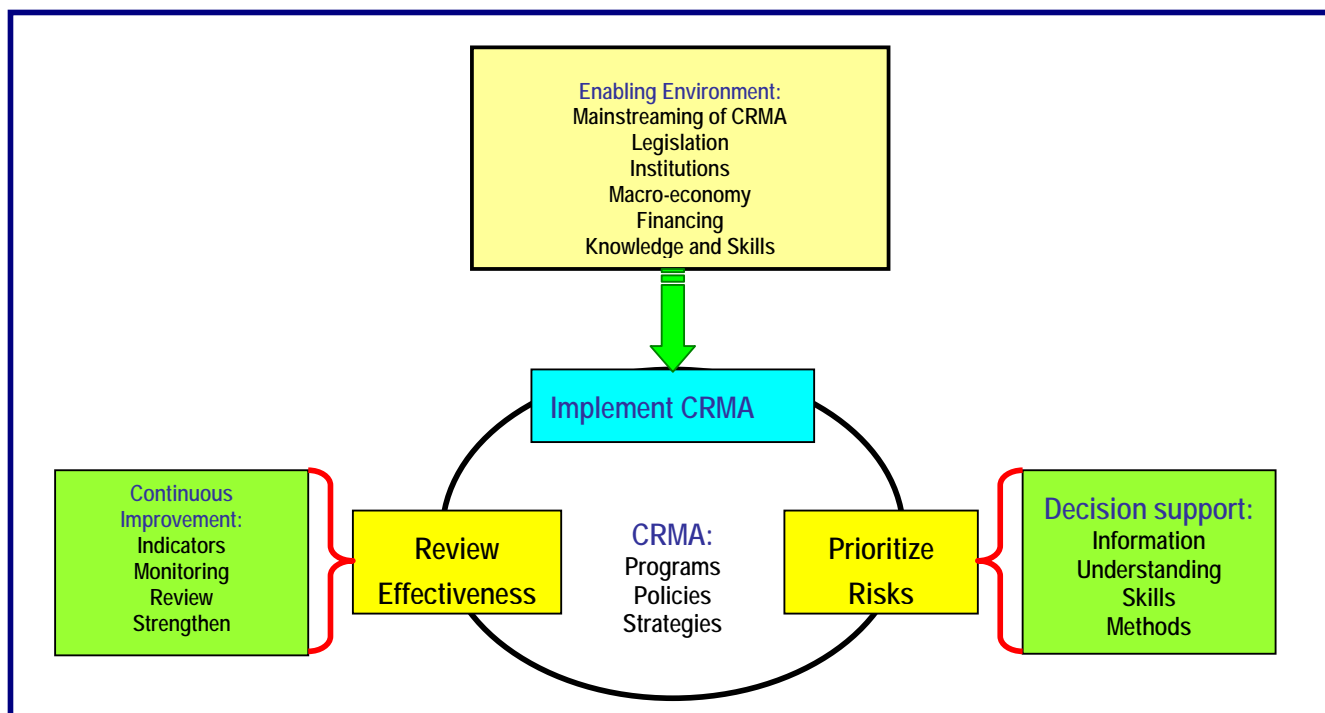


Figure 2.3: Typical Framework and Methodology for Mainstreaming Climate Risk Management and Adaptation (Adapted from ADB, 2005)

2.3 Challenges and Opportunities

2.3.1. African countries face a number of challenges in mainstreaming climate risk management and adaptation into development planning, policy and public and private investments. These challenges will be taken into consideration and addressed while implementing the CRMA. Such challenges include:

Limited availability of reliable, useful and useable climate information. In planning for adaptation to climate change, information is key. Countries lacking the capacity and resources to track meteorological patterns, forecast impacts and assess risk cannot provide their citizens with good quality information—and are less able to target the public investments and develop policies that can reduce vulnerability. Africa has the world’s lowest density of meteorological stations, with one site for every 25,460 km² - one-eighth of the minimum level recommended by the World Meteorological Organization (WMO). The Netherlands, by way of contrast, has one site for every 716 km² - four times above the WMO minimum.

Poor institutional capacities to provide competent CRMA and champion long-term adaptation. Exposure to risk is a function not only of past human development but also of current public policy and institutional capacity. Not every flood or storm produces a climate disaster – and the same event can produce very different outcomes in different countries. The devastating effects of the 2000/2001 floods was exacerbated by the fact that governance problems, low levels of finance and a limited disaster planning and response capacity left public agencies unable to initiate rescue and recovery operations on the scale required. Two types of institutional impediments stand in the way of mainstreaming climate Risk Management and Adaptation into developmental processes in Africa: the lack of appropriate institutions at all levels, and chronic dysfunction of existing institutional arrangements.

Limited integration among sectoral ministries in Africa. Climate change affects wide-ranging sectors, and therefore it is important to engage relevant ministries at all levels from national to local. However, many sectoral ministries in Africa operate in silos and it is not uncommon to find more than one ministry being responsible for a specific resource. For instance, we have in some countries the Ministry of Water Resources, Ministry of Agriculture and Natural Resources and the Ministry of Irrigation with jurisdiction over water, making the integration of climate change into water resources planning difficult.

Limited financial resources: Finance poses the greatest limitations to adaptation and the ability to mainstream it into national developmental planning. Current estimates of costs are tentative and depend on the climate change scenario, and how ambitious the adaptation regimes are expected to be. However, some studies have placed the estimates of the total cost of adaptation in Africa between USD 2-10 billion each year (UNDP, 2007).

2.3.2. There are also **opportunities** for mainstreaming CRMA into development planning in Africa, which will also be explored in the course of the implementation of the CRMA: These include:

The absence of climate change focused institutions provides the opportunity to mainstream the climate change issues in strengthened institutions. Mainstreaming climate change is a new phenomenon in Africa and the absence of institutions dedicated to implement this provides a good opportunity to establish and capacitate institutions to effectively address the challenges.

Availability of existing knowledge and technologies, particularly indigenous knowledge systems. Climate change is not new in Africa and many local communities have been dealing with the challenges over the years. They have accumulated rich and extensive indigenous knowledge systems that can be improved upon in the design of adaptation strategies as well as in mainstreaming of Climate Risk Management and Adaptation strategies.

Africa enjoys a high level of goodwill and understanding from the international community. Development partners have demonstrated a willingness to work towards the achievement of poverty reduction objectives in Africa. This willingness is extended to addressing the challenges of climate change in view of the threat that climate change poses to poverty reduction in the continent.

Opportunity for green development: With Africa's current low level of technological development, the continent has a good opportunity to chart a sustainable path towards a low-carbon development without having to adopt the models of the first world.

3. CLIMATE RISK MANAGEMENT AND ADAPTATION STRATEGY

3.1 Guiding Principles

3.1.1 The Bank Group will develop its assistance on CRMA within the scope of its mandate and comparative advantage, and as an integral part of its medium term strategic orientations. CRMA activities will be gradually intensified as internal capacity in this area is strengthened. The Bank will systematically draw lessons from its growing operational activities in the area, with a view to strengthening the effectiveness of its assistance to RMCs. It will also work on strengthening collaboration with partner development agencies, including identifying and replicating good practices in their CRMA operations, analytical methods and tools, and harmonising or even financing joint activities. The Bank Group's CRMA activities will be guided by the following key principles:

3.1.2 *Country Ownership and Alignment:* In line with the core principles of the Paris Declaration on Aid Effectiveness, the Bank Group, within the limits of its resources, will strive to

respond promptly to the demands of its member states. Its operational activities in support of CRMA will be closely aligned to the priorities of the RMCs as outlined in national and sub-regional development plans, poverty reduction strategies, sector strategies, and National Adaptation Plans of Action (NAPA). Operational activities will be tailored to adequately analyse risk exposure characteristics and vulnerabilities of individual countries or regions.

3.1.3 *Regional Integration*: Climate change and variability is a regional phenomenon and negative impacts can severely affect several countries in the region. As such, climate risk management and adaptation will require extensive cross-country collaboration and monitoring in the interest of protecting both global and regional public goods.

3.1.4 *Selectivity*: Support to RMCs on CRMA will be highly focused and selective taking into account the Bank's comparative advantages and areas of competence vis-à-vis other sources of development assistance. This will also include giving priority to low carbon technology options.

3.1.5 *Integration of Current Climate Risks and Long-Term Climate Change*: The meteorological drivers of climate variability are not adequately understood even in the climate science community. The Bank, therefore, will adopt an integrated approach to CRMA aimed at assisting RMCs to reduce their vulnerability to current climate variability and weather extremes, as well as to adapt to longer-term climate change threats and opportunities.

3.1.6 *Partnerships*: In order to provide adequate support to RMCs and maximise knowledge generation, the Bank will actively strive to build synergies with the interventions of other bilateral and multilateral agencies, private sector, non-governmental and civil society organizations.

3.1.7 *Carbon Accounting*: Considering that some of the Bank's investment will contribute to greenhouse gas emissions, particularly in the agriculture and energy sectors, the CRMA will progressively expand to account for these greenhouse gases with a view to offsetting them.

3.2 Goal and Objectives

3.2.1 Studies have linked poverty to lack of sustainable adaptive capacity and therefore the **overall goal of the Bank's climate risk management and adaptation strategy is to ensure progress towards eradication of poverty and contribute to sustainable improvement in people's livelihoods taking into account climate change**. The specific objectives are:

- (i) To reduce vulnerability and promote climate resilience in past and future Bank-financed development investments making them more effective;
- (ii) To build capacity and knowledge within the RMCs to address the challenges of climate change and ensure sustainability through policy and regulatory reforms.

3.3 Areas of Intervention

In order to achieve the above-mentioned objectives, the CRMA will support three main areas of intervention:

3.3.1 Climate Proofing Investments

3.3.1.1 The overall expected outcome of this intervention is to promote climate resilience through climate proofing of investments in order that investments are implemented as planned thereby contributing to reduced poverty. Climate proofing of Bank investments and supporting RMCs to ensure climate resilience of their development investments will promote increased adaptation to climate change and ensure resilience to extreme events. **For the continent's infrastructure facilities to be more resilient to climate change, it is necessary to adapt them**

to new climatic conditions by designing, constructing, operating and maintaining them to serve under such changed conditions. Therefore, investing in enhancing climate resilience and climate-proofing of economic and social infrastructure will be the key focus of this area of intervention.

3.3.1.2 Climate proofing of Bank investments and supporting RMCs to ensure climate resilience of their development investments will promote increased adaptation to climate change and ensure infrastructure which is more capable of withstanding extreme events (e.g., warmer temperatures, stormy conditions, torrential rains and floods, etc). This activity does not imply any additional conditionalities but rather involves mainstreaming the climate adaptation measures at design stage. Considering the average implementation cycle for Bank projects, it is envisaged that Bank Group operations approved from 2007 to date would still provide room for adaptation measures to be mainstreamed. However, this does not remove the possibility of screening certain known high risk projects, approved prior to 2007, for necessary adaptation measures.

3.3.1.3 Bank staff will apply due-diligence and climate risk management procedures appropriate to different levels of risk exposure (see Annex 1) at all stages of the Bank's project cycle, to ensure that Bank Group-financed operations have sufficient resilience. Climate variability and extremes are detrimental to the structural integrity, stability, normal functioning and service delivery of infrastructure assets, significantly reducing their return on investment. The CRMA strategy will support the development and adoption of new climate resilient engineering and architectural design standards, building materials and codes of practice for operations and maintenance of all types of infrastructure, including improved safety infrastructure. In the case of more demanding climatic conditions, the CRMA will support enhanced investment in safety infrastructure and the development of more resilient building materials. Besides infrastructure, the CRMA will seek to climate proof investments in all climate sensitive sectors such as roads, energy, agriculture, and natural resources management.

3.3.2 Policy, legal and regulatory reforms

3.3.2.1 Sustainability of climate resilience and continuous adaptation of investments and other development interventions both for RMCs and the Bank will require a positive enabling environment with particular respect to policies and legal reforms. The Bank will use some of its budget support instruments to address activities outlined under this intervention area. Some of the activities that this intervention area will support are:

- Support mechanisms to prevent and reverse land degradation and promote afforestation, and sustainable land use practices;
- Supporting governments in designing and mainstreaming climate risk management strategies into national sectoral developmental policies, as well as in implementing institutional reforms for enhanced performance. These could include the development of climate resilient plans, land tenure reforms, fishery sector regulation, and creation of an enabling policy, legal and regulatory conditions for climate risk insurance vehicles;
- Establishing anti-pollution standards for African rivers, basins and lakes, as well as strengthened trans-boundary cooperation in the management of freshwater resources.
- Strengthened regulatory oversight over extractive industries, particularly in the case of oil, gas, and precious stones industries which use extractive practices which are harmful to the natural environment. This will also include the strict monitoring of the industry for compliance to international safeguards, standards and codes;

3.3.3 Knowledge Generation and Capacity Building

3.3.3.1 It is expected that Bank's support in this area will strengthen capacity to develop and use climate information and climate adaptation best practices for further climate risk management. Specifically, the Bank will:

- Support the building of *climate information systems*, such as the ClimDev-Africa Programme that the Bank is developing together with the African Union and the ECA. It is to be noted that climate monitoring and information systems on the continent already exist. The Bank's support will strengthen and upgrade existing systems, based on national and regional needs assessments, to become early warning systems which are both national and regional based. It is envisaged that the important aspect of *RMC disaster preparedness* will be addressed by the availability of useable and timely information through the ClimDev Africa programme as well as the early warning systems built there-in. Moreover, the Bank's existing modality on the Emergency and Humanitarian Relief Assistance, which has recently been revised, would provide the necessary post-disaster support;
- Support *African negotiators capacity leading to post-Kyoto discussions* especially in the area of tapping into the new available resources and benefits. It is worth mentioning that the Bank has hosted a meeting with the secretariat of the African Ministerial Conference on Environment (AMCEN). AMCEN has been mandated by the African Union to lead this process, as well as prepare African negotiators for a successful negotiation on Post-Kyoto agreements. The Bank has already held discussions to agree on areas of support to AMCEN with regards to Africa's preparation towards the negotiation of a Post-Kyoto climate agreement that will be concluded in Copenhagen, Denmark in December 2009. It is to be noted that Africa has benefited very little from the current Kyoto agreement and its financial mechanisms such as the Clean Development Mechanism (CDM), where less than three (3) percent of all approved projects are in Africa. As a new agreement is being negotiated, Africa needs to go into the negotiations with a common and coherent position.
- Support to RMCs in accessing climate change resources from multilateral and bilateral resources;
- RMC capacities will also be strengthened through training of government officials from key climate sensitive sectoral ministries, as well as support to improved monitoring of the impacts of climate change on climate sensitive sectors in each sub-region;
- Strengthening national and sub-regional infrastructure authorities (e.g., ports and marine regulation authorities, transport departments, national road authorities, sub-regional power pools, civil aviation authorities, etc) to more fully incorporate climate change in long-term infrastructure plans.

3.4 Modalities and Financing Instruments for CRMA Strategy

3.4.1 It is estimated that the cost of adaptation in Africa is about USD 2 to 7 billion annually. As such the Bank will promote the use of all available resources both internally and globally. For example, for the climate proofing of projects which have already been approved, the Bank will capitalise on its partnerships and knowledge of the existing global resources dedicated to addressing climate change. The main cost implication as relates to the implementation of the CRMA is related to the climate proofing of new and limited number of on-going projects which is estimated to be in the range of UA 20 million for the period 2009 to 2011. It is also envisaged that the support to capacity building, knowledge work as well as policy and regulatory reforms in RMCs, will be demand driven and will be mainstreamed within the project design.

3.4.2 As indicated earlier, the Bank will tap all resources available to meet the needs of addressing climate risk management and adaptation in Africa. The present strategy proposes an implementation time frame of 3 years (2009 – 2011) after which it is envisaged that capacities in RMCs will have been sufficiently strengthened for them to access available global resources on their own. The Bank's role by this time will be to continue to provide RMCs with the technical support and guidance in mainstreaming climate change issues. It is also envisaged that by 2011, the Bank would have sufficiently scaled up its work on climate risk analysis and mainstreaming adaptation measures in the project design and as such climate risk management and adaptation would become a standard feature and a requirement in Bank project designs and which will be closely monitored by OSUS and ORQR, within the results framework. As such the Bank will use all available financial resources as follows:

3.4.3 **Internal Bank Resources:** For projects in the pipeline, the Bank will mainstream adaptation measures at project design stage. This will be done in close dialogue with the countries, weighing clearly the long term benefits of ensuring climate resilience.

3.4.4 **Climate Investment Funds:** The World Bank in partnership with the Regional Development Banks, hosts the Climate Investment Funds (CIF) worth about 6.1 billion US dollars. The climate investment funds have two main components, namely the Clean Technology Fund (CTF) worth about 5.1 billion US dollars; and a number of small funds referred to as Strategic Climate Funds (SCF). The Bank is represented on the Trust Fund Committees of both the CTF and SCF. The CIF has selected 6 African countries, Egypt is one of the first ones in Africa, to benefit from the available resources and the Bank is to lead in their implementation. While not all African countries may be eligible for funding from these resources, the Bank will work closely with RMCs to build their capacity in accessing all available resources globally.

3.4.5 **Global Environment Facility:** In addition to the CIF, the Bank will leverage additional funds for RMCs to address the challenges of climate change through the Global Environment Facility (GEF) which has allocated about \$250 million dollars per year in projects in energy efficiency, renewable energies, and sustainable transportation. The GEF is also designing a fund dedicated to adaptation which may be worth about 700 million US dollars. **As a GEF executing partner, the Bank would then assist RMCs in submitting the project proposals to GEF for further funding.** The Bank has already provided support to RMCs in accessing GEF resources in partnership respectively with UNEP, UNDP and the World Bank. All these projects have strong linkages with sustainable land and water management.

3.4.6 **The Congo Basin Forest Fund (CBFF):** The CBFF provides another window of resources for the Bank to support projects related to sustainable forest management as well as supporting re-forestation and mitigation of land degradation including building capacity of the national and regional institutions in climate risk management and adaptation.

3.4.7 **Multilateral Trust Funds:** The Bank is currently benefiting from existing multilateral trust funds, many of which have climate change as its core area of support, such as the Finnish Trust Fund, the DfID resources, the Danish Funds. OSUS, in collaboration with the Bank's Partnerships and Cooperation Unit (ORRU) is engaged in resource mobilisation exercise to further increase the available resources among these multilateral trust funds.

3.4.8 **The Clean Development Mechanism:** The Clean Development Mechanism (CDM) of the Kyoto Protocol was created to allow the conversion of GHG emission reductions in developing countries into carbon credits that industrialized countries can use for complying with the emission targets set under the Kyoto. Under the CDM, projects that reduce greenhouse gas emissions and contribute to sustainable development can earn saleable certified emission reduction credits (CERs). Countries with a commitment under the Kyoto Protocol can purchase the CERs to meet a portion of their obligations under the Protocol. This has consequently generated a huge carbon market that is currently estimated at about US \$70 billion. The CDM's

current focus on industrial emissions has left Africa at the margin of international carbon markets. There is a very large, and currently untapped, potential for mitigation in the agriculture and forestry sectors in Africa, through activities that are not currently allowed under the CDM, such as avoided deforestation, sustainable agricultural and forestry practices, and soil carbon sequestration.

3.4.9 Despite the rapid growth of global carbon finance transactions, by September 2008 only three projects of 1150 registered CDM projects were located in Sub-Saharan Africa (outside of South Africa). The low level of industrialization in most African countries limits the potential of energy related CDM projects. The Bank, along with some UN Agencies concerned with this phenomenon, committed in 2007 to implement the Nairobi Framework adopted under the UNFCCC at the occasion of the 12th session of the Conference of the Parties to the UNFCCC. The Framework aims to help developing countries, especially in sub-Saharan Africa, to improve their level of participation in the CDM. But as long as agriculture and improved land-use cannot yield carbon credits, it is unlikely that Africa will benefit much from carbon finance. Expanding the CDM to include the agriculture and forestry sectors in a post Kyoto climate change negotiation will generate funds that will enable our RMCs to address adaptation to climate change and other developmental challenges. Part of the Bank's climate change strategy is to enhance the participation of African countries in the global carbon market and benefit from every opportunity that climate change may present. As such, the Bank will work closely with RMCs to build their capacity in the area of Clean Development Mechanism (CDM) which may help them to access a largely untapped **carbon market** that is currently estimated at about US \$70 billion. The Bank's Private Sector Department has already made good progress in this regard, as explained earlier. Subject to demand from RMCs, the CRMA will explore the possibility of the Bank playing a more active role as a broker for the RMCs in the carbon market.

4. IMPLEMENTATION FRAMEWORK AND INSTITUTIONAL ACTIONS

4.1 Climate risks and vulnerabilities will be more adequately reflected in the Bank Group's Country Strategy Papers (CSPs) and regional strategy frameworks that set the Bank's operational priorities in individual RMCs and sub-regions. The safeguards compliance and quality assurance review process also needs to be revised to ensure that climate risks and vulnerabilities are given thorough scrutiny.

4.2 The Bank will develop easily applicable *Climate Risk Analysis Frameworks* (CRAFs) and corresponding methods and tools for use at sub-regional, country, sector, programme and project levels. This will be supported by developing relevant tools and guidelines for Bank staff use. Specifically, the Bank will: (a) develop portfolio-screening tools, guidelines, and methods to allow the Bank to assess systematically the relevance of climate change and adaptation to the ongoing and planned development projects; (b) strengthen institutional links during the screening process and follow up activities; (c) training of Bank staff in the use of the screening tools; and (d) sharing experiences and results from screenings with other development agencies. As regards due diligence, task managers in each Operations Complex department will carry out a quick screening of project and programme proposals using computer based tools to identify country, region and sector, specific climate risks during project design.

4.3 Procedures currently in force for conducting operations due-diligence will be revised comprehensively to incorporate climate risks and to pay closer attention to the multiple vulnerabilities that put Africa at greater risk than other major regions of the world. Similarly, the Bank's operations safeguards need to be revised. In this regard, the Bank's *Environment and Social Impact Assessment* (ESIA) guidelines will be replaced by a new, more comprehensive *Environment, Climate and Social Impact Assessment* (ECSIA) guidelines, taking climate change vulnerabilities more fully into account. Furthermore, the Bank has already revised project

appraisal report formats and programming documents (such as CSPs) to include a dedicated section on climate change risk management. Further revisions are on-going, specifically with regards to the Bank's environmental and social impact assessment guidelines to clearly address climate risk management and adaptation issues.

4.4 Strengthening the **Gender, Climate Change, and Sustainable Development Unit (OSUS)** will be an important pre-requisite to delivering the Bank's commitment to CRMA. It is therefore proposed that the staff strength in OSUS for climate change will be built up as follows: (i) by the end of 2009, OSUS will have two dedicated climate change experts as well as two DfID supported climate change technical assistants; (ii) in 2010, 4 new positions would be requested for Board approval. In addition, considerable emphasis, will be placed on upgrading the climate risk management and adaptation skills of Bank staff in all Complexes. Mainstreaming climate change into the programming and project cycle will require training of country economists and other programming personnel as well as project task managers to screen programmes and projects. In particular, the Bank's environment, social and gender experts will be further trained to enable them incorporate in-depth climate change management risk analysis into their existing environment and gender evaluation, as a second in-depth tier of screening.

4.5 The **Operations Committee (OpsCom)** already plays an important role in overseeing the quality-at-entry of Bank Group operations. In this capacity, OpsCom will oversee all aspects of strengthening Bank Group assistance to RMCs in support of their efforts to mainstream CRMA in their development and poverty reduction strategies.

4.6 **Monitoring and Evaluation:** The CRMA results framework is aligned with the regional targets as well as the Bank's Results Framework. Monitoring will be undertaken at two levels: (i) progress related to the implementation of climate risk management and adaptation measures in the Bank's investments. In this regard, the Bank's institutional KPIs for 2009 already include an indicator on addressing climate change in the Bank's investment operations. (ii) Monitoring the country level outcomes as relates to climate change resilience. The former will be monitored and reported upon through the Bank's normal reporting mechanisms such as the supervision and mid-term review reports as well as project completion reports. Impact at the country level will be monitored in coordination with partners who are specialised in monitoring the climate variability, such as the UNFCCC, IPCC, UNEP, etc. Training on climate change will be part of the staff annual performance evaluation and will be monitored by their respective supervisors to ensure that all staff are equally sensitised and empowered to address climate change issues in operations. The Bank's network on climate change is already in place, chaired by VP, OSVP since early 2007. The cross-complex network members meet regularly and discuss progress, agree on new and on-going activities, as well as provide guidance to OSUS in further coordinating this work. Therefore, the network will continue its work in cross-complex coordination with a clear mandate to monitor progress in the implementation of the Bank's CRMA strategy. It is also proposed that the Bank will prepare a CRMA action plan for the period 2009 – 2011 to clearly outline deliverables and implementation responsibilities.

5. PARTNERSHIPS

5.1 Clearly, the range of technical support and the scale of financing assistance needed by RMCs to effectively manage climate risks and adapt to long-term trends are beyond the capacity of any single bilateral, multilateral or non-governmental development agency. Management, therefore, in its implementation of the CRMA Strategy, will place utmost importance on close collaboration, harmonisation and distribution of labour with a range of development partners. The following are some of the on-going partnership activities:

Table 1: Implementation of CRMA with Partners

African Union and UNECA	The Bank is already working with the AU and UNECA to develop the ClimDev-Africa Programme which is a regional initiative to develop and strengthen climate information systems on the continent as well as make available early warning systems. This programme also aims to promote regional integration through a standardised climate information monitoring system.
United Nations system	In partnership with UNFCCC and UNDP , the Bank is working to implement the Nairobi framework with regards to building capacity of the RMCs to enable them to access carbon markets under the CDM. In addition, under the UNFCCC framework, the Bank is working to build the capacity of the African Negotiators leading up to the post-Kyoto agreements in December 2009.
World Bank	The Bank has already discussed with the World Bank to build on their experience in climate proofing. On-going activities are related to: recruitment of specialized consultants who have developed the WB's climate proofing systems, using the WB computer based software for climate proofing and building on it to ensure its appropriateness to the African situation; training of AfDB staff by WB experts, and exchange of country level climate risk information. The Bank is also a member of the Climate Investment Funds hosted by the WB and as such is part of the project proposals screening committee. The AfDB is also facilitating access to the CIF funds for RMCs, Egypt being the first beneficiary through the Bank approved project in January 2009.
Global Environment Facility	As the executing partner for GEF, the Bank is mandated to support RMCs in developing projects for climate risk management and adaptation. In that regard, the Bank has already allocated GEF resources to design an adaptation component which is an add-on to one of the Bank's on-going irrigation projects in Malawi. Further preparatory activities are on-going to support RMCs which have already written to the Bank for support in this area.
European Union	The European Union is currently developing a €100 million <i>Global Climate Change Alliance (GCCA)</i> between the EU and poor developing countries most vulnerable to climate change, in particular the LDCs and SIDs. The Alliance will provide a platform for dialogue and exchange as well as practical cooperation to tackle the combined challenge of the fight against poverty and climate change, in support of the international negotiations on a post-2012 climate change agreement and the adoption of effective action at national level. As the component objectives of GCCA are similar to those of CRMA, the Bank will play a very active role in assisting RMCs access the funds of the GCCA as well as support enhanced dialogue, and common approaches, including at multilateral level, on climate change challenges in Africa, Europe and globally, in particular in view to the negotiations for a global and comprehensive post-2012 climate agreement.
Bilateral partners	The Bank has received both technical assistance and financial support from DfID and GTZ to further increase its capacity to implement the CRMA. Discussions are also ongoing with the Finnish and Danish trust funds for further support in this area. With JICA, the Bank has had some preliminary discussions in the area of knowledge sharing. The Bank is also working to build the capacity of COMESA in the implementation of the Bio-carbon initiative which is being supported by Norway and DfID.

6. CONCLUSIONS

The increasing threats to livelihoods and poverty reduction on the African continent have reinforced the commitment of the African Countries for the need to be proactive in addressing climate change issues. The African Development Bank has committed to support its member countries in this process. The Bank's Climate Risk Management and Adaptation Strategy has outlined key areas of intervention which are of priority importance to manage the risks of climate change and continue to enhance the capacity of RMCs to meet their national development targets as well as the MDGs. The CRMA has clearly shown that addressing climate change is beneficial, both financially and economically, to MCs in the short as well as the long term.

The Boards of Directors are requested to consider the Bank Group's Climate Risk Management and Adaptation Strategy for approval.

Annex 1

Proposed Climate Risk Categorisation Scheme

		Vulnerability to Climate Change Risks	
		Low	High
Potential Impacts on Environment, Climate, Risks, Social Cohesion and Welfare	Highly Negative	Category 1(L)	Category 1(H)
	Moderately Negative	Category 2(L)	Category 2(H)
	Negligible to Low	Category 3(L)	Category 3(H)
	Moderately to Highly Positive	Category 4(L)	Category 4(H)

Category 1(L): Operations with potential to exert highly detrimental impacts on the environment (atmosphere, water, soil, ecosystems and biodiversity) and/or society (cohesion, welfare, gender equality, etc), or exacerbate climate risks, but whose performance (e.g., financial rate of return, achievement of objective targets, etc) has low vulnerability to climate risks;

Category 1(H): Operations with potential to exert highly detrimental impacts on the environment and/or society, or exacerbate climate risks, and whose performance is highly vulnerable to climate risks;

Category 2(L): Operations with moderately detrimental impacts on the environment and/or society, or exacerbate climate risks, but whose performance has low vulnerability to climate risks;

Category 2(H): Operations with moderately detrimental impacts on the environment and/or society, or exacerbate climate risks, and whose performance is highly vulnerable to climate risks;

Category 3(L): Operations with minor positive or negative impacts on society, the environment and climate risks, and whose performance has low vulnerability to climate risks;

Category 3(H): Operations with minor positive or negative impacts on society, the environment and climate risks, but whose performance is highly vulnerable to climate risks;

Category 4(L): Operations with potentially highly positive impacts on the environment and society, which mitigate climate risks, and whose performance has low vulnerability to climate risks; and

Category 4(H): Operations with potentially highly positive impacts on the environment and society, which mitigate climate risks, but whose performance is highly vulnerable to oate risks.

Annex 2

Glossary of Climate Change Terminology

Adaptation – A process by which strategies (policies, actions and other initiatives) to moderate, cope with or take advantage of the consequences of climatic events are enhanced, developed and implemented.

Adaptive Capacity – The ability of a system to adjust its characteristics or behaviour in order to expand its coping capacity under existing climate variability or future climate conditions. Actions that lead to adaptation can enhance a system's coping capacity and increase its coping range thereby reducing its vulnerability to climate hazards. The adaptive capacity inherent in a system represents the set of resources available for adaptation, as well as the ability or capacity of that system to use these resources effectively in the pursuit of adaptation.

Climate Change - Any significant change in climate over time whether due to natural variability or because of human activity. Human activity leading to climate change primarily includes emission of greenhouse gases into the atmosphere, leading to less radiation of heat and global warming.

Climate Change Mitigation - Response measures that reduce the emission of greenhouse gases into the atmosphere or enhance their sinks, aimed at reducing their atmospheric concentrations and therefore the probability of reaching a given level of climate change.

Climate Change Vulnerability - The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity.

Climate Proofing - Actions to ensure that development efforts are protected from negative impacts of climate change, climate variability, and extreme weather events and to ensure that climate-friendly development strategies are pursued to delay and reduce damages caused by climate change.

Climate Resilience - The capacity of a system, community or society potentially exposed to climate hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures.

Climate Risk - The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between climate-induced hazards and vulnerable conditions.

Climate Risk Management - An approach to systematically manage climate-related risks affecting activities, strategies or investments, by taking account of the risk of current variability and extremes in weather as well as long-term climate change.

Climate Variability - Reflects shorter-term extreme weather events, such as tropical hurricanes and the El Niño Southern Oscillation (ENSO), and North Atlantic Oscillation (NAO). Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability).

Extreme Events – Climate events departing markedly from the average values or trends, and that is exceptional. Mostly, the return period substantially exceeds 10 years.

Mainstreaming - In the context of addressing climate change and related issues, the term “mainstreaming” is used to describe the integration of policies and measures to address climate change in ongoing and new development policies, plans, and actions. Mainstreaming adaptation aims to enhance the effectiveness, efficiency, and longevity of initiatives directed at reducing climate-related risks, while at the same time contributing to sustainable development and improved quality of life.

National Adaptation Programme of Action (NAPA) - National Adaptation Programmes of Action (NAPAs) are intended to communicate priority activities addressing the urgent and immediate needs and concerns of Least Developed Countries (LDCs), relating to adaptation to the adverse effects of climate change.