



## Seventh African Development Forum (ADF VII)

### “Acting on Climate Change for Sustainable Development in Africa”

10–15 October 2010  
UNCC, Addis Ababa, Ethiopia

#### Concept Note

### I. Background and Justification

#### A. The African Development Forum

The African Development Forum is an initiative led by the United Nations Economic Commission for Africa (UNECA), the African Union Commission (AUC) and the African Development Bank (AfDB) to address the challenges of development in Africa and establish a consensual African-driven development agenda. Initially held annually, the ADF is now held biennially and is Africa’s premier multi-stakeholder platform for dialogue to build consensus and mobilize partnerships for Africa’s development. It is attended by Africa’s top political leadership and policy makers, as well as policy shapers, including the private sector, civil society and academia. Each biennium, a theme of pressing relevance to Africa’s development is selected to anchor dialogue during the Forum. Prominent persons from various stakeholder constituencies are invited to lead discussions on key aspects that impact on the theme. A consensus statement is issued by the Forum and this represents the African position on the specific developmental challenge. Participation is always spirited and productive and this invariably leads to shared outcomes among the diverse constituencies that attend the Forum.

#### B. Previous Forums

Six ADF's have been convened in the last ten years on the following themes:

**ADF I** - October 1999 - explored the *Challenge to Africa of Globalization and the Information Age*. It drew attention to information and communication technology (ICT) as key not just to Africa’s development but as a means to leveraging its participation in the global economy. The main outcome was the ECA-led African Information Society initiative (AIS), which has come to form the bedrock for ICT policies and activities in Africa in the last decade.

**ADF II** - December 2000 - looked at *HIV/AIDS: Africa Greatest Leadership Challenge*. It stressed the value of effective leadership at every societal level in winning the war against the HIV/AIDS pandemic. This particular ADF provided a critical venue to discuss a new international funding mechanism to respond to the crisis and this led to unprecedented levels of private-public partnerships on AIDS in Africa called *Scenarios for the future* initiated by UNAIDS and Shell International, with support from ADB, ECA, UNDP and the World Bank.

**ADF III** - March 2002 - was on *Defining Priorities for Regional Integration*. It coincided with efforts to establish the African Union (AU) and the consensus statement was incorporated into the discussions at the AU Council of Ministers and at the July 2002 Summit of Heads of State and Government in South Africa.

**ADF IV** - October 2004 – was on *Governance for a Progressing Africa*. It focused on actions to strengthen the “capable state” – one with transparent and accountable political and economic systems, and efficient public institutions, all crucial to enabling private sector led growth, and in which other stakeholders, including civil and traditional societies, have important roles to play. The NEPAD African Peer Review Mechanism (APRM), Africa’s premier home-grown governance monitoring tool, drew heavily from the measures agreed at ADF IV to assess and monitor the progress of African countries in achieving good political, economic and corporate governance.

**ADF V** - November 2006 - was on *Youth and Leadership in the 21<sup>st</sup> Century* and responded to the UN General Assembly Resolution 60/2 calling for “concerted actions by all stakeholders to promote youth development”. It provided a platform for evaluating progress towards meeting the objectives of the World Programme of Action on Youth (WPAY) and actions to translate the strategies in the African Youth Charter.

**ADF VI** - November 2008 - focussed on *Action on gender equality, women’s empowerment and ending violence against*. The main outcome was the adoption of a plan targeting three priority action areas, namely a) the Africa-Wide Campaign to Eliminate Violence against Women and Girls; b) Financing for gender equality, women's empowerment and ending violence against women and girls; and c) reliable data on gender equality, women's empowerment and violence against women and girls.

Links to these ADFs are available on the UNECA website [www.uneca.org](http://www.uneca.org)

### **C. The Seventh African Development Forum**

From a people-centered livelihood and sustainable development perspective, ADF VII will focus on “*Acting on Climate Change for Sustainable Development in Africa.*”

Climate change is one of the most challenging threats to sustainable development in Africa. Although the continent contributes less than 4% of total greenhouse gas emissions, its countries are among the most vulnerable to climate change in the world. This vulnerability derives from multiple stresses coupled with low adaptive capacity. Firstly, the geographical location of many African countries is characterised by already warmer and relatively dry climate, with extensive marginal areas characterised by poor soils and high rainfall variability. Secondly, the economies of most African countries rely heavily on climate-sensitive sectors such as agriculture, fisheries, forestry, other natural resources and tourism. Thirdly, the continent is unable to respond adequately to the direct and indirect effects of climate change because of widespread poverty, poor economic and social infrastructure, conflicts, limited human and institutional capacities, and inadequate technologies and financial resources. Vulnerability to climate change in Africa is particularly high for the poor, who tend to live in environments that are most susceptible to droughts, floods and other extreme weather events.

The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) and other major reports such as the Stern Review of the Economics of Climate Change point to some of the current and projected impacts of climate change on Africa's development. Such major impacts threaten economic growth as well as achievement of the Millennium Development Goals (MDGs) and sustainable development in the region. They include:

- Increased water stress and water-related conflicts;
- Constrained agricultural production and productivity and hence increased food insecurity;
- Increased energy constraints – a further challenge to industrial development;
- Rising sea level, degrading coastal livelihoods, infrastructure and environment;
- Loss of biodiversity, forests and other natural habitats, threatening the well being of millions of people, whose livelihoods depend on biodiversity resources;
- Expanded range and prevalence of vector-borne diseases including malaria, adding to the challenge of the HIV/AIDS pandemic, affecting mostly the poor who live in desperate conditions and lack access to health care; and
- Increased risks of disasters, conflicts, instability and security threats, associated with massive population migrations induced by extreme climate events.

Concerted efforts for adaptation to climate change must be undertaken at all levels to increase the resilience of African societies and economies to the many extra challenges. In addition, if strong global mitigation actions are taken now, there is still time to avoid the worst impacts of climate change. Effective response thus requires actions by all stakeholders explicitly mainstreaming climate change concerns into development policies, strategies, programmes and practices, with special attention to the most climate-sensitive sectors. Such actions should be conceived and implemented not only in full cognizance of the evidence, impact and challenges of climate change, but also taking into full account the opportunities associated with climate change. Chief among these are opportunities for Africa to adopt low-carbon and climate resilient development pathways. Africa must further benefit to the fullest extent possible from the provisions of a post-2012 global agreement in terms of technology, financing and capacity building for climate change adaptation and mitigation.

Africa has so far succeeded in articulating its concerns and interests in a common position and conveying them to the international community in the ongoing climate change negotiations. Although these negotiations were not concluded with a legally-binding agreement at the Fifteenth Conference of Parties (COP-15) of the United Nations Framework Convention on Climate Change (UNFCCC), the resulting Copenhagen Accord did mark some progress in the right direction, especially in terms of developed countries' willingness to curb their greenhouse gas emissions and provide financial support for adaptation and mitigation efforts in developing countries. As negotiations continue towards a hopeful conclusion at COP-16 in Cancun, Mexico in December 2010, it is important that Africa keep on course with a united front in further refining and administering its common position.

**The Seventh African Development Forum (ADF VII) is aimed at providing a multi-stakeholder platform to discuss and build consensus on the above imperatives. *The Forum will offer an opportunity to exchange information, knowledge and experience on how best Africa can and should cope with climate change through effective action on policies, strategies, programmes and practices. In addition, ADF VII will help strengthen the African common position in the ongoing international negotiations, by raising awareness and building consensus among all African stakeholders and with development partners on Africa's concerns and expectations for a post-2012 global climate change agreement.***

## **II. Objectives**

### **A. Overall objective**

The overall objective of the Forum is to raise awareness and mobilize effective commitment and actions on the part of all stakeholders and partners at all levels to effectively mainstream climate change concerns into development policies, strategies, programmes and practices in Africa. ADF VII also aims to strengthen Africa's participation in the international climate change negotiations with a view to ensuring adequate reflection of the continent's concerns and priorities in a post-2012 international climate change regime.

### **B. Specific objectives**

More specifically, ADF VII will:

- Demonstrate the compelling evidence and impacts of climate change and the need for widespread adoption of quality climate risk management practices based on reliable information services, in order to optimize adaptation and mitigation policies and practices;
- Deliberate on the many challenges that climate change poses to Africa's development, and the opportunities it presents;
- Promote sharing of experiences, best practices and lessons learned in mainstreaming climate change concerns into development policies and practices;
- Define priority actions and measures needed to adequately address the climate change challenge, including leveraging on the opportunities it presents
- Give momentum to Africa's Common Position on Climate Change in preparation for the international climate change negotiations in Cancun, Mexico; and
- Build and strengthen new strategic alliances and partnerships to further Africa's climate change agenda.

## **III. Expected Outcomes and Outputs**

### **A. Outcomes**

Discussions and dialogue during ADF VII will result in:

- Better informed African stakeholders of the threats and opportunities of climate change;
- Enhanced knowledge of African stakeholders in managing climate risks through mainstreaming climate change concerns in development policies and practices;
- Strengthened capacity of African stakeholders to address climate change challenges and leverage opportunities presented;

- Effective participation of Africa in the Cancun climate change negotiations and beyond;
- Enhanced support for the implementation of Africa's priority climate change initiatives and programmes; and
- Strengthened effective strategic alliances and partnerships for Africa's climate change agenda.

## **B. Outputs**

Key information and follow-up products that will be produced and disseminated during and after the Forum will comprise the following:

- Forum report
- Consensus statement
- Press releases
- Daily bulletins
- Web publications
- Compendium of the Forum proceedings.

## **IV. Format**

ADF VII will be divided into three parts: pre-forum activities, plenary sessions and focus breakout session meetings in parallel.

### **A. Pre Forum Activities**

#### ***1. ADF-VII exhibition***

The ADF VII exhibition will showcase the work of national and international exhibitors relevant to the Forum.

#### ***2. Parallel Meetings and workshops***

As an integral part of the Forum, pre-forum activities including parallel meetings and workshops will be held on different thematic areas relevant to the Forum. The outcomes of these meetings and workshops will feed into the deliberations of related Forum sessions. Activities already scheduled are:

- (i) Media Training on 'Getting it Right: Reporting Climate Change for Sustainable Development in Africa'
- (ii) Rights and Resources Initiative (RRI) Africa Regional Dialogue on Forests, Governance and Climate Change
- (iii) African Climate Change and Environment Security (ACCES) Meeting on Climate Change and Security
- (iv) Economic Commission for Africa (ECA)/InWENT (Capacity Building International) Experts Meeting on Climate Change Measurement
- (v) UN RCM Social and Human Development Cluster meeting on Climate Change and Population, Health, Gender and Youth

- (vi) African Union (AU)/NEPAD Planning and Coordinating Agency (NPCA) /ECA/World Wildlife Fund (WWF) Meeting on Climate Change, Agriculture and Rural Development
- (vii) Global Climate Change Alliance (GCCA) Africa Regional Consultation
- (viii) Consultation on United Nation Environment Programme (UNEP)-Stockholm Environment Institute (SEI) Climate Adaptation Collaborative Programme
- (ix) The Sixth UN Science and Technology Cluster meeting (ECA-UNESCO)
- (x) UNEP-ECA-AUC High level Seminar on Environmental Diplomacy
- (xi) African Development Bank (AfDB) Consultations on the Proposed Africa Green Fund
- (xii) World Bank –ECA Meeting on Energy and Climate for Development

## **B. Main Programme**

The main programme of the Forum will comprise plenary and focus breakout sessions in addition to the opening and closing ceremonies. The plenary sessions will highlight the key issues relevant to the climate change challenge and will provide broad policy orientations needed to address these challenges and to take advantages of the opportunities that climate change presents. The plenary sessions will thus set the stage for in-depth discussions that will be held in the subsequent focus break out sessions. All sessions will highlight the imperative of mainstreaming climate change into development concerns at the sector and macro levels.

A high-level launch of the Climate for Development in Africa (Climdev-Africa) Programme and its African Climate Policy Centre (ACPC) will take place in the exhibition area during the visit of the exhibition by VIPs. This will immediately follow the high level dialogue on governance and leadership response to climate change.

### ***1. Opening Ceremony***

The Executive Secretary of United Nations Economic Commission for Africa(UNECA) will make welcome remarks. He will then invite the President of the African Development Bank (AfDB) to make some remarks, and the Chairperson of the African Union Commission (AUC) to make a statement. Following, the Head of State of Ethiopia will deliver the opening address and declare the meeting open.

### ***2. Plenary Sessions***

The meeting will comprise five main plenary sessions, namely:

- High Level Dialogue on Governance and Leadership Response to Climate change;
- Evidence and impact of Climate change;
- Climate change adaptation and mitigation: Challenges, Opportunities and the Green Economy;
- Africa and the international climate change negotiations: Africa’s concerns and expectations for the post-2012 international climate change regime; and
- Private Sector response to climate change

*(a) High Level Dialogue on Governance and Leadership Response to Climate Change*

The high-level dialogue on governance and leadership response to climate change will set the tone for the Forum. In this regard, the Forum will hear addresses of Heads of State and Government and eminent personalities on key issues relevant to the climate change challenge in Africa. The addresses will highlight the role of governance and leadership in spurring adequate and appropriate responses to addressing the climate change challenge in Africa, as well as in taking advantage of the opportunities that climate change presents. Discussions will follow and main issues arising and recommendations will be synthesized from the discussions.

*(b) Evidence and impact of Climate change*

The Forum will hear presentations on the evidence of climate change, the extent of its present and projected impacts on economic growth, social development and environmental sustainability in Africa. Discussions on the presentation will follow and main issues arising and recommendations will be synthesized from the discussions.

*(c) Climate change adaptation and mitigation: Challenges, Opportunities and the Green Economy*

The Forum will hear presentations highlighting climate change adaptation and mitigation challenges, the opportunities available to Africa, as well as the potential benefits of greening the economies of African countries. Panellists will emphasize the importance of mainstreaming climate change into development policies, programmes and practices in order to ensure sustainable development. Discussions on the presentation will follow and main issues arising and recommendations will be synthesized from the discussions.

*(d) Africa and the international climate change negotiations: Africa's concerns and expectations for the post-2012 international climate change regime*

The Forum will hear presentations on the key issues, concerns and expectations of the continent regarding the ongoing international negotiations on climate change and the upcoming Sixteenth Conference of Parties to the UNFCCC that will take place in Cancun, Mexico. Discussions on the presentation will follow and main issues arising and recommendations will be synthesized from the discussions. The session will offer options on strategies to build consensus on key issues, effectively participate in negotiations and strengthen Africa's position in a post-2012 climate change regime.

*(e) Private Sector response to climate change*

The Forum will hear presentations highlighting the role and importance of the private sector in addressing climate change issues on the continent. Presentations will describe the challenges and solutions for private sector investments in mitigation and adaptation measures in Africa, opportunities for engaging business in transformational climate sensitive projects with a blend of private sector financing and concessional financing instruments, Africa's participation in the global carbon market mechanisms and innovation and technology transfer prospects. Discussions on these presentations will follow and the main issues arising including recommendations will be synthesized from the discussions.

### **3. Focus Break-out Session**

Following the plenary sessions, the meeting will take place in parallel focus break-out sessions for in depth deliberations. The sessions will be clustered into three main thematic areas, namely: (i) climate change, food security and economic development; (ii) climate change, human development, security and ecosystem sustainability; and (iii) harnessing means of response to climate change. Presentations by lead speakers and responses by discussants will steer the sessions and guide the discussions. Main issues arising and recommendations will be synthesized from the discussions. These will inform the consensus statement and, subsequently, the elements of an indicative follow-up plan of action.

- (a) Climate change, food security and economic development;*
  - i. Climate change, agriculture and food security
  - ii. Climate change, trade and industrial development
  - iii. Climate change and infrastructure development (energy, water, transport and ICT)
  
- (b) Climate change, human development, security and ecosystem sustainability;*
  - i. Climate change and human development (health, education, employment, gender and youth)
  - ii. Climate change, governance, peace and security
  - iii. Climate change and ecosystem sustainability
  
- (c) Harnessing means of response to climate change;*
  - i. Climate risk management: Monitoring, Assessment, Early warning and Disaster Risk Reduction
  - ii. Financing climate change adaptation and mitigation actions
  - iii. Science, technology, innovation capacity building

### **4. Consideration and adoption of Draft Consensus Statement**

The focus break out sessions will report back to plenary and the designated rapporteurs of each session will present the main conclusions and recommendations of their discussion. The Forum will then have before it a draft Consensus Statement for consideration and adoption. The Forum will discuss the draft and make comments and observations, which will be recorded. The draft Consensus Statement will be adopted with the understanding that the agreed amendments will be adequately reflected in the document to be circulated along with the Forum Report to all participants at the earliest possible time after the Forum. The Consensus Statement will serve to lend multi-stakeholder support and momentum to Africa's position in the global climate change negotiations at Cancun and beyond.

### **5. Closing Ceremony**

The Chairperson of the AUC and the President of the AfDB will make some remarks. Following this, the Executive Secretary will outline the way forward and close the Forum.

## **V. Documentation**

To ensure that ADF VII effectively addresses the climate change challenge in Africa in all its dimensions, the following documents will be prepared as inputs to inform and stimulate the discussions.

### **A. Issues papers**

Issues papers on different thematic areas will be key inputs into ADF VII. These will clearly identify the issues, elaborate on their nature and magnitude and raise key questions that will guide and stimulate the discussions.

### **B. Background documents**

The main background document of the Forum will provide a critical review and discussion of the climate change and development nexus in Africa. Additional documents from various sources providing relevant background information on the different subthemes of the Forum will also be made available.

## **VI. Categories of participants**

- Eminent personalities, including Heads of State and Government
- African member States
- Regional Economic Communities
- Regional and sub-regional climate centers
- Private sector
- Academia, science and technology community
- Civil society organizations
- Media
- African Diaspora
- United Nations partners
- Bilateral organizations/partners
- International and regional financial institutions
- South-South cooperation organizations

## **VII. Partners and Collaborators**

The planning, organization and holding of ADF VII will involve a broad partnership and collaborative arrangement between the Tripartite Secretariat of the AUC, the UNECA and the AfDB. Collaborating institutions will include the Regional Economic Communities (RECs), the NEPAD Planning and Coordinating Agency (NPCA), United Nations Secretariat and agencies (UNDP, UNEP, UNIDO, UNCTAD, FAO, WFP, IFAD, WMO, UNFCCC Secretariat, UNESCO, DPA, ILO, UNIFEM, UNFPA, UNICEF, UNAIDS, WHO, UNHCR, OHCHR, IOM and others). Partners will include civil society organizations, the private sector, research institutions, development partners (DFID, Norway, Sweden, Germany, EU/EC, Rockefeller Foundation, AGRA), and other key stakeholders.

## VIII. Overview of the Topics to be Addressed in Plenary and the Focus Breakout Sessions

### 1. Plenary Sessions:

- Governance and leadership response to climate change
- Evidence and impact of climate change
- Climate change Adaptation and Mitigation: Challenges, Opportunities and the Green Economy.
- Africa and the international climate change negotiations
- Private Sector response to climate change

#### a. Governance and leadership response to climate change

The nature and extent of the predicted impacts of climate change on all societies, economies and ecosystems of the world, calls for good governance and a strong and committed leadership from all regions of the world that will spur the necessary response to the unprecedented challenges that this phenomenon poses. Leadership will be tested to the limit by the magnitude of responses that are necessary within a short time frame to combat climate change in the face of economic and social challenges that require immediate attention.

Then again, if a fair and strong global agreement on climate change is negotiated to manage the planet in sustainable ways, and if adequate financing and the required technology development and transfer are made available to developing countries, then the associated benefits, including ‘green transformation’ of lives and livelihoods, could present a unique opportunity for developing countries, particularly those in Africa.

It is the responsibility of leadership to recognize and pursue such opportunities, and lead the way forward. But successful delivery of such change will require good governance, with thriving public, private and civil institutions, all working towards the same goal. In this regard, the theme on *governance and leadership response to climate change* will take the form of a *high level leadership dialogue*.

#### b. Evidence and impact of climate change

It is now a scientifically established fact that the earth’s climate is changing. The fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) (AR4-2007) concludes that our climate system is warming as a result of human activities. Not only do rising greenhouse gas emissions threaten the environment, they also undermine development and have dramatic and negative consequences for Africa’s economic and social well-being. Without adequate understanding of future climate trends to enable us to manage our unstable climate, Africa may not achieve the Millennium Development Goals (MDGs).

While all countries in the world will be affected by climate change, African countries are particularly vulnerable and will suffer the most. According to different models, the effects for Africa of a temperature increase of around 2°C - that is highly expected - could mean a loss of USD 133 billion or 4.7 % of GNP, mostly as a result of loss in the agricultural sector. A temperature rise of 2.5-5°C would mean 128 million more people affected by hunger and 108 million by flooding, and sea levels rising by as much as a meter, with devastating effects.

A good starting point for serious action-oriented debate on climate change, therefore, is reaching a common understanding on the very evidence of the phenomenon and the extent of its present and projected impacts on economic growth, social development and environmental sustainability in Africa.

**c. Climate change Adaptation and Mitigation: Challenges, Opportunities and the Green Economy.**

Climate risks need to be integrated into national decision-making on development policies, programmes and practices so as to reduce the negative effects of climate change on resources, livelihoods and the wider economy. Such integration should encompass both the challenges that climate change poses and the opportunities, especially those associated with the green economy, it offers for future pathways to sustainable development. Dialogue on such challenges and opportunities should also help raise the political priority of response, recognizing that this ‘environmental problem’ is really a major developmental challenge.

**d. Africa and the international climate change negotiations**

The ongoing climate change negotiations are complex and challenging, as the issues under discussions relate to all aspects of development. In order to ensure that African countries participate effectively in the negotiations and develop well-informed positions for Cancun, all relevant stakeholders, including government actors, the private sector and civil society should be effectively involved and engaged in the process. This calls for raising awareness about the key issues and elements under discussion, and building/strengthening consensus on key concerns and expectations of the continent in the context of the international negotiations.

**e. Private Sector response to climate change**

Effective partnerships with the private sector have been increasingly recognized as a basis to overcome present barriers that restrict capital flows into the sectors that support climate change mitigation and adaptation. The alleviation of the negative impacts of climate change as well as maximizing the potential opportunities it creates through low carbon economic growth requires broad institutional and fiscal reform along with increased financial commitments by both governments and the private sector working together, as no single option for resource flow is able to meet the demands effectively on its own. Experts emphasize that a large portion of this amount can come from the private sector if adequate public policies and governance structures are in place to leverage finance. The awareness and consciousness of the significant role of the private sector in addressing climate change risks to investment and on business opportunities related to mitigation and adaptation also needs to be continually built up. Key organizations and institutions will need to play a strategic role in sharing knowledge, experiences and expertise in this field from both the public and private sectors. Addressing the urgency and the scale of the climate challenge calls for effectively harnessing the capacities of the private sector.

## **2. Breakout parallel sessions:**

ADF-VII will offer a platform for more focused and in-depth discussion of the following sub-themes, clustered in the three parallel sessions

- Climate Change , Food Security and Economic Development
- Climate Change , Human Development, Security and Ecosystem Sustainability
- Harnessing means of response to climate change

### **a. Climate Change , Food Security and Economic Development**

#### ***i. Climate Change, Agriculture and Food Security***

Climate change is projected to severely compromise agricultural production and productivity - the backbone of most African economies - and exacerbate poverty and food insecurity in many sub-regions of the continent. The area suitable for agriculture, the length of growing seasons, the irrigation and yield potential, are all expected to decrease significantly particularly along the margins of semi-arid and arid areas. More frequent and severe droughts, floods and weather extremes will compound the constraints on crop and livestock production systems. Local food supplies would also be affected negatively by decreasing fisheries resources in oceans, seas and large lakes due to rising water temperatures. The combined impacts of these events threaten the livelihoods of large proportions of the African population and curtail the prospects for broad-based economic growth, poverty reduction and food security in the continent.

Smallholder farmers in developing countries like in Africa are on the front lines of climate change. Quite often, this poor segment of society has to bear the brunt of the impact of climate change. Climate change and food security are the greatest challenges to be faced by Africa in the coming years. Serious studies indicate that “unchecked climate change” will result in a 20 percent increase in child malnutrition by 2050. It is thus vital to twin the climate change and agriculture agendas, and adapt agriculture to the new climate reality. To this effect, all actors should be involved at the outset, in initiatives to widen the development scope beyond traditional actors, and engage stakeholders and partners in a true positive process.

Addressing the effects of climate change on agriculture, including crops, livestock and fishing activities, will require new analytical approaches supported by appropriate institutional frameworks. The current decision-making process involving vulnerability and risk analysis, agricultural monitoring, food security early warning, environmental assessment, and resource mobilization activities need to be reviewed and adjusted, taking into consideration changing realities. Also important is the adoption of policies and strategies that will empower communities to respond and adapt to the new complex challenges.

#### ***ii. Climate Change, Trade and Industrial Development***

Climate change is impacting African trade and industrial development in several ways. For instance, climate-induced reduction of agricultural output would make Africa more dependent on food imports. Some modeled projections of climate change impacts show an increase of such import dependency by 10 to 40 percent. Furthermore, significant declines

have also been predicted for Africa's net agricultural exports ranging from 9 percent in Mozambique to 74 percent in Zambia. At the same time, prospects for a green economy offer new opportunities for future pathways to industrial and trade development in Africa. Effective action at coping with climate change for sustained economic growth and poverty reduction in Africa requires a good understanding of such challenges and opportunities for trade and industrial development. For instance is job creation consistent with green economy

### *iii. Climate Change and Infrastructure Development*

Investment in infrastructure has been neglected in much of Africa during the last few decades. Consequently there is a large 'infrastructural deficit' to be made up, as well as all the adaptation required to enable existing infrastructure to function reliably in a changed climate. On top of that there is need to convert much infrastructure to use low-carbon fuels. The infrastructural challenge alone is colossal.

*Water and Sanitation:* Climate change will increase existing water stress and water shortage in Africa. Decreasing water availability is expected to affect water quality, worsen water borne diseases, and reduce available hydropower. Coupled with increased demand on water for different uses (agriculture, industry, energy, etc.), this will adversely affect the livelihoods of hundreds of millions of people and aggravate water-related problems. Adapting and enhancing existing infrastructure must be informed by projected resource constraints.

*Energy:* A combination of increased power demand together with reduced water flows to hydropower dams and greater depletion of biomass energy resources resulting from climate change could seriously compound the already dire state of energy availability and accessibility. The resulting constraints on energy access would further impede industrial development throughout the continent. This notwithstanding, Africa is still blessed with considerable opportunities for developing renewable energy resources.

*Transport:* Transport infrastructure is particularly vulnerable to increased flood risk from larger storms as well as sea level rise. Road and railway networks, airports and harbors will all need to be upgraded or replaced if they are to remain functional. In addition carbon based fuels (coal, gas and oil) will need to be phased out in a low carbon development pathway, requiring much replacement infrastructure.

*Information and Communication Technology:* Information and communications technology has important roles to play in adaptation to climate change. While some existing infrastructure will need upgrading (risk of greater flooding) other networks will need expanding to improve communications (including distance learning) and reduce travel needs.

*Urban, Industrial and Coastal Infrastructure:* Very difficult decisions need to be made with respect to protecting coastal land and infrastructure in from sustained sea-level rise. Increased storm flood risk and sustained water shortages will complicate the position further. Maintaining urban infrastructure in mega-cities through climate change will be challenging in the extreme especially where urban migration is unrestrained by measures to stabilize rural populations.

## **b. Climate Change , Human Development, Security and Ecosystem Sustainability**

### ***i. Climate Change and Human Development (health, education, employment)***

Climate change is expected to produce changes in temperature and rainfall. This will result in warmer environments, altered rainfall patterns, and increased incidences of vector-borne diseases in parts of Africa. It is predicted that many sub-regions, including the Sahel, Southern and Eastern Africa, will experience increased outbreaks and severe vector borne diseases such as malaria, cholera, yellow fever, trypanosomiasis and rift valley fever. These diseases will prevent children, the most vulnerable segment of the population, from attending school. Climate change would thus add to the challenge of the HIV/AIDS pandemic, with the poor being the worst hit due to paltry living environments and lack of access to health care. Furthermore, agriculture remains the main provider of employment in most African countries; hence, climate-induced reduction of agricultural output will seriously affect the most vulnerable, namely women and children. Dialogue under this sub-theme will focus on core drivers of human and social development, with emphasis on gender, youth, health and education.

### ***ii. Climate Change, Governance, Peace and Security***

Most of the current scientific literature on climate change concludes that countries subject to environmental damage and dwindling production capacities – including deforestation and land degradation – are more likely to experience both internal and external conflict. Disputes over grazing land, cattle wrestling, border and territorial disputes all may have climate-driven stress elements that either fuel conflict or are critical to its outcome. This is evidenced by the increasing frequency of open conflicts and violent disputes in the Sahel and greater Horn of Africa.

One of the key drivers of insecurity and instability in both pastoral and agrarian societies is the lack of water security, since water shortages are triggered as a result of climate variability. Most climate change propositions pay disproportionate attention to emission control rather than to policies of adaptation which are a fundamental part of the governance agenda. The state has to develop an adaptive capacity to the unpredictable impact of climate change as it may have unforeseen negative effects which will indirectly affect state legitimacy. Therefore, responses to climate change will depend on the nature and scale of adaptation actions. These include public policy measures taken by the state to improve the economic livelihood and safety of its citizens as well as the collective actions by the community and civil society and private sector at all levels, including national, regional and global. Additionally, the plight of ‘climate change refugees’ needs to be addressed. Millions of people will be forced over the next decades to leave their villages, coastal towns and cities to seek refuge within and beyond borders. The new group of arrivals will need to have their social and economic rights secured including their voice to be heard in decision making processes to avoid social conflicts.

### ***iii. Climate Change and Ecosystem Sustainability***

Life on earth relies directly or indirectly on ecosystem goods and services. However, we know very little about the natural limits or the risks of collapse of these ecosystems, which

are under increasing pressure from climate change and other environmental factors. Over the years, the increasing pressure on ecosystems, which are the source of economic well-being, is underscoring the need to prescribe an economic value to ecosystems, thereby prompting trans-disciplinary shifts in how we recognize and manage the environment, social responsibility, business opportunities, and the future for both man and nature.

In the context of the current threat of climate change, ecosystem management and sustainability is key to adapting and mitigating the related impacts. Coping with sea level rise, for instance, will require improved management of coral reefs, mangroves and coastal areas to increase their resilience. Similarly, prevention of and coping with extreme flood events will require securing catchment forests and reforestation in degraded areas. Under conditions of climate change, therefore, the management of ecosystems and the services they provide becomes even more important.

### **c. Harnessing means of response to climate change**

#### ***i. Climate Risk Management: Monitoring, Assessment, Early warning and Disaster Risk Reduction***

Based on current evidence, a consensus now exists within the global scientific community that human activities are the main source of climate change. Africa is faced with the following scientific and socio-economic challenges: understanding the science of climate change and monitoring, mitigating and developing resilience to natural and human-induced hazards and disasters in Africa (e.g. droughts, floods, landslides, tropical cyclones, wildfires, earthquakes, tsunamis, submerging islands and desertification). Producing and using adequate climate information for policymaking and adaptation practices through a climate risk management approach is essential.

Increased climate variability is likely to cause even greater number and frequency of disasters. Unless the increased risk of extreme climate events such as storms, floods and droughts is attended to with greater preparations for disaster risk reduction, then increasing numbers of African people will migrate from rural to urban areas. Further desertification will drive people away from increasingly arid areas. Rising sea-levels will force people away from low lying coastal areas and reduce productivity on small islands. The resulting migrations must be managed well to maintain peace and security, and to reduce conflict over access to and control of key livelihood resources such as land and water. These additional pressures will further complicate the already complex issue of migration flows within and between the continent and the rest of the world.

#### ***ii. Financing Adaptation and Mitigation Actions***

The Bali Action Plan calls for enhanced action on the provision of financial resources, particularly to developing countries. There has been a proliferation of new climate-related funding initiatives covering both adaptation and mitigation that can be regrouped either by the sources of funding -- initiatives funded by international public contributions, which cover the majority of existing mechanisms and those that rely on market-based carbon finance, or by their governance structure – funds coordinated under the authority of the UNFCCC/Kyoto Protocol and those that are either managed directly by the funding bilateral agencies or administered by the World Bank and other multilateral agencies, also known as non-

Convention funding initiatives. However, almost all international public funds rely on voluntary contributions and will not raise the sufficient financial flows needed.

The Copenhagen Accord offers some hope for developing countries. Financial assistance has been proclaimed by some as the most successful part of the Accord. The Accord establishes a collective commitment for developed countries to provide new and additional resources to fund mitigation and adaptation actions in developing countries. A total of \$30 billion will be provided over the period 2010–2012 for short-term financing. In this regard, adaptation funding is prioritized for the most vulnerable countries. For long-term financing, an amount of \$100 billion a year by 2020 will be provided.

Although the level of the agreed figures is low, the Accord reflects developed countries' promises to fund developing countries' mitigation and adaptation efforts. This funding will also be available to developing countries for REDD-plus actions. The Accord also calls for the establishment of a Copenhagen green climate fund as an operating entity of the Framework Convention on Climate Change. The Secretary General of the United Nations has established a high-level advisory group on climate change financing, co-chaired by Prime Minister Meles Zenawi of Ethiopia and Jens Stoltenberg of Norway to deliberate on the delivery of the pledges.

However, a critical issue is the ability of African countries to use these new funds effectively. In this context, countries should build institutional, technical, and managerial capacities in order to effectively access such funds. Furthermore, there should be concerted efforts to better integrate Africa into global carbon markets, in order to leverage the financing opportunities that these markets present.

### *iii. Harnessing Science, Technology and Innovation, and Building Capacity for Adaptation and Mitigation*

Climate change is a highly complicated and uncertain challenge. It demands a broad and well resourced scientific community, up to date technology, a culture of innovation in adaptation and mitigation, decision makers educated in climate risk management processes, and a public that is aware and engaged. Africa has a long way to go in this regard.

Africa lacks advanced technologies to propel its sustainable development objectives and a business-as-usual approach would lead to unsustainable development results. A major concern for African countries is support for the effective deployment and transfer of technologies in the areas that are of critical importance to the continent. These include agriculture, forests, other land-uses, small-scale renewable energy, etc. The identification, scaling up and replication of indigenous technologies relevant to climate change adaptation and mitigation are also important. Regional centers of excellence and networks will be important in this context. Support for these regional centres will be crucial for information gathering and sharing, and also for training. Support for the promotion of a more innovative and suitable intellectual property right regime will also be needed. In this regard, the engagement of the private sector is pertinent.

In Africa, the crucial challenges to capacity-building include limited financial and human resources, limited research infrastructure, lack of communication between science and society, the weak link between science and policy, and the lack of clear national strategies. Accordingly, the key issues to be addressed would be the development and implementation of relevant policies; the generation, assessment and dissemination of scientific and technical

knowledge; and the integration of scientific and technical knowledge into development policies. Beyond developing the capacities of African institutions, there is an urgent need to adequately address the needs of the African negotiators and to build and strengthen their capacities. They play a crucial role in shaping the international climate change regime and they are instrumental in implementing the Convention at the local, national and regional levels.