Progress Towards Sustainable Development in Africa

Economic Commission

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RIO+20
United Nations Conference
on Sustainable Development

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Economic Commission

African Union

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Executive Summary

I. Introduction

A. Background

This report was prepared for the Rio+20 UN Summit[1] and presents a synopsis of efforts made by the region, starting from the Earth Summit in 1992 (the Rio Summit), through the World Summit on Sustainable Development (Rio+10), to the United Nations Conference on Sustainable Development (Rio+20), scheduled for 20-22 June 2012, and is thus a guide to the extent to which the Africa region has implemented international and regional commitments on sustainable development.

By June 2012, the world would have had precisely two decades to develop strategies and institutions, implement policies and programmes, build partnerships and mobilize resources to move from a conventional to a sustainable development paradigm. This transition is no longer an option, but has become a necessity for the long-term survival of humanity. From 20 to 22 June 2012, people from throughout the world will gather in Rio de Janeiro, Brazil, for the United Nations Conference on Sustainable Development in order to revisit issues, commitments and progress in the implementation of Agenda 21 (A21), which resulted from the 1992 Earth Summit, held in Rio from 3 to 14 June 1992, and reinforced by the Programme for Further Implementation of Agenda 21 (PFIA21) of 1997, and the World Summit on Sustainable Development (WSSD) of 26 August – 4 September 2002, which gave rise to the Johannesburg Plan of Implementation (JPOI). Mandated by a decision of the UN General Assembly in December 2009, Rio+20 will examine issues ranging from the political to the operational. On the political front, it will rekindle and heighten political commitment to sustainable development and renew the call for regions and countries to do more to show results. On the operational front, it will assess the progress made since the 1992 Summit, assess gaps in the implementation of commitments, and address new and emerging challenges. Discussions will centre on two key themes: a green economy in the context of sustainable development and poverty eradication; and the institutional framework for sustainable development.

The world has come a long way since attention was first drawn to the need to think about the environment and consciously connect the economic, social and environmental components into an integrated development process that is now referred to as sustainable development. Gradually, over the past forty years, global consciousness of and concern for sustainable development have increased enormously in response to the scale of the environmental and social problems that have arisen worldwide as a result of unsustainable development. This concern, which gave rise to A21, PFIA21 and JPOI, has determined the context within which countries must pursue development. While there has been progress towards implementing the commitments made in these frameworks, all the evidence points to the need for countries and regions to do more to achieve sustainable development.

The Rio+20 Conference is taking place at a time when global and regional development challenges are pushing development strategies to the limits of knowledge and innovation. The world today remains highly vulnerable. Natural disasters have continued to devastate regions and countries; the global economy is increasingly unstable and has been plagued by varying degrees of financial, food and fuel crises, depressed growth, rising unemployment, huge debts, and inadequate response to the most significant of the Millennium Development Goals (MDGs) – poverty eradication in developing countries. The devel-

1 For further and more detailed information, this report should be read in tandem with other reports commissioned by UNECA for inputs for the region's preparation for the Rio+20 Conference. These include the reports on Institutional and Strategic Frameworks for Sustainable Development; New and Emerging Challenges in Sustainable Development; the Green Economy in the Context of Sustainable Development and Poverty Eradication – What are the Implications for Africa?; Means of Implementation- Bridging the Gap; and the five review reports for Central, Eastern, North, Southern and West Africa.

oped countries face sovereign debt crises, which require economic reforms, while developing countries are still grappling with challenges in achieving MDG targets, especially eradication of poverty, which is being exacerbated in some countries by declining agricultural productivity, surging food prices and the effects of climate change. For Africa, achieving the targets set for the MDGs is an unavoidable precondition for take-off into sustainable development. A return to the table to take stock of progress in the implementation of commitments on sustainable development in the context of poverty challenges is therefore essential, but it must go beyond simply re-enacting political commitment and adding to the rapidly growing volume of normative prescriptions on sustainable development. The need for results is much greater than it was two decades ago. Rio+20 must therefore point to and pave the way for meaningful results.

It should be recalled that, in 1997, the first five-year review of implementation of A21 showed that little progress had been made. It was clear then that the necessary momentum for accelerated implementation and political commitment was lacking. This led to the organization of WSSD, which represented a further ten-year review of implementation of the outcomes of the 1992 Rio Summit, particularly A21, and was a response to the need to reinvigorate global commitment to sustainable development. While WSSD pointed to pockets of encouraging results during the first decade of implementation of A21, it was obvious that Africa needed to do a lot more. The Report on Progress towards Sustainable Development in Africa seeks to assess the region's performance since 2002, and cumulatively since 1992.

The Rio+20 Conference is significant in many respects. It will provide an opportunity to assess performance in the implementation of sustainable development commitments. The significance of Rio+20 also lies in the need for renewed political commitment and, very importantly, to address the issue of resources. It has been estimated that developing countries would need about US$ 600 billion annually, including about US$ 125 billion to be transferred in grants or on concessional terms from the international community, to implement the sustainable development commitments put forward by A21.[2] With financial and technical resources constituting some of the most constraining means of implementation and only a few African countries having well-articulated national sustainable development strategies, the Africa region faces a very challenging post-Rio+20 development agenda.

B. Purpose, Scope and Methodology of Report

The purpose of this report is to assess the performance of the African region in the implementation of global and regional commitments on sustainable development for the Rio+20 Summit. In terms of scope, the analysis is based on progress made at the regional and subregional levels. Where necessary, country-level performances are dawn on for concrete evidence of progress, however. This report was prepared on the basis of a desk review of documentation. It draws heavily on reports prepared by the United Nations Economic Commission for Africa (UNECA), as well as data and information gathered from the African Union Commission (AUC), the African Development Bank (AfDB), the NEPAD Planning and Coordinating Agency (NPCA), the United Nations Environmental Programme (UNEP), Regional Economic Communities (RECs), the United Nations Regional Coordination Mechanism-Africa (UN-RCM Africa), regional research institutions and networks, and regional knowledge-sharing platforms, among others.

The assessment of Africa's performance was based on global commitments and obligations as contained in the following frameworks: A21, Rio Summit of 3-14 June 1992; PFIA of 1997; JPOI, WSSD, 26 August-4 September 2002; the MDGs, September 2000; the Paris Declaration on Aid Effectiveness, March 2005; and the Accra Agenda for Action, September 2008. The assessment had the following five dimensions: commitments; achievements; financing obligations; support required and received (financial, technical, etc.); and implementation gaps.

2 See ibid, APFED1/02 Ref. 6, January 7, 2002.

II. The Concept of Sustainable Development

A. Definition of Concept

Sustainable development is a well-established concept. This Report is guided by the definition advanced by the Brundtland Commission: development that "meets the needs of the present without compromising the ability of future generations to meet their own needs".[3] Sustainable development places challenges facing growth and development within the context of the absorptive or carrying capacity of natural ecosystems and recognizes the limits of such systems. It also places emphasis on intra- and intergenerational equity. In the 1970s, the development concern was economic sustainability, with ecologists pointing to the limits of growth. Since then, concerns have shifted to the sound state economy, which presents a state of equilibrium that allows environmental issues to be addressed. Thus, the concept resulted from a gradual shift in the focus of development theories. In the 1950s and 1960s, development mainly focussed on economic growth and increases in outputs based on efficiency theories. In the 1970s, the growing gap between rich and poor within and between regions resulted in a shift to addressing equity issues, with emphasis on social development and income distribution as key elements. Around the same time, the impact of economic growth on the environment brought into focus the importance of integrating environmental concerns in the development agenda. It is in this context that the seminal work by the World Commission on Environment and Development (WCED), known as the Brundtland Commission, can be argued to have contributed significantly to the recognition of the need to integrate economic, social and environmental concerns in the development process.

B. Pillars of Sustainable Development

The analysis of the concept of sustainable development is generally based on three component pillars, namely, economic, social and environmental sustainability. There is a strong consensus on them in the international community and among development management institutions and development practitioners. While there is general consensus on the three pillars of sustainable development, this Report equally stresses the role and importance of governance and institutions as a fundamental and overarching dimension of sustainable development. The components examined are therefore: Governance and Institutions; Economic Sustainability; Social Sustainability; and Environmental Sustainability. Also of importance in the analysis of progress are interlinkages among the pillars and the means of implementation of the commitments. The gaps in the means of implementation are a measure of how far the region can truly go in meeting its commitments on sustainable development.

III. Implementation of Sustainable Development Commitments: Progress and Challenges

A. Implementation of Sustainable Development Commitments, 1992-2002

1. Global Progress – A Synoptic Overview

The 1992 United Nations Conference on Environment and Development (UNCED) provided a political platform and programmes to drive the transition from conventional to sustainable development. A21 was accepted by more than 178 governments in 1992.[4] The commitments were strengthened by PFIA21. There was evidence that there had been progress towards achieving the goals contained in those frame-

3 In 1987, the United Nations released the Brundtland Report, which included what is now one of the most widely recognized definitions: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

4 Some 85 of the 178 signatories to Agenda 21 have national policies and programmes for sustainable development.

work documents, albeit slower than anticipated. It was also generally acknowledged that the integration of environment and development into a common sustainable development framework remained a challenge. Meanwhile, globally, environmental degradation, biodiversity loss and poverty did not decrease at the pace envisaged by the various international commitments.[5] This was also true of social development, in view of the recent outbreaks of unrest demanding political reforms and improvement in the quality of governance.

Thus, progress in the implementation of sustainable development commitments during the first decade had three major features. First, the concept of sustainable development prompted a shift from a focus on single, isolated issues to an appreciation of the complex interactions between a wide range of environmental and developmental factors. This marked a transition to sustainability. Second, there was a movement from international top-down normative guidelines to national institution-building and more local-level approaches. Third, the requirements for implementing sustainable development as contained in A21 and PFIA 21 placed emphasis on the development and sharing of scientific and technical knowledge. This resulted in increased interest in research by public and private institutions globally.

By the end of the first decade, more than 85 countries had developed national strategies for implementing A21. Some progress had been made in a number of areas, including the following:

i. Development of national strategies, policies, programmes and institutional coordination mechanisms for sustainable development;

ii. Integration of sustainable development strategies into national plans and planning cycles;

iii. Integration of sustainable development objectives into sectoral policies and programmes;

iv. Strengthening of mechanisms for coordination with and among donors at the country level in line with the principles of the Paris Declaration on Aid Effectiveness; and

v. Improvement of institutional mechanisms for following up international obligations on integrating environmental considerations into development activities.

In a number of developing countries, sustainable development principles had been introduced into national frameworks, such as conservation strategies, environmental plans, national vision statements, and national Agenda 21 initiatives.

There was growing awareness and sensitization of the private sector to sustainable development commitments. Companies, especially multinational corporations, had begun to integrate sustainable development obligations into their operations. A growing number had stepped up research on and investment in the development of cleaner technologies. The World Business Council for Sustainable Development had developed a collection of case studies of the sustainability transition for a wide variety of firms.

2. Global Challenges in Implementing Commitments

By the time WSSD was held, A21 had had limited success (UN, 2002). Some of the challenges in the implementation of the commitments included:

a. *A fragmented approach towards sustainable development that de-coupled environment and development.* The concept of sustainable development integrates environment and development in the long term. Between 1997 and 2002, the approaches to sustainable development were still largely fragmented. This was primarily the result of policies and programmes at the national and international levels that were often short-term, and that inadequately merged environmental and developmental considerations;

b. *Lack of integrated national policies and approaches in the areas of finance, trade, investment, technology, and sustainable development.* To a large extent, short-term considerations were placed above the long-term use of natural resources, and policies were compartmentalized;

5 Camilo and Sale (July 2011).

c. *Continuing unsustainable patterns of consumption and production.* Unsustainable consumption and production remained rooted in value systems that drove the utilization of natural resources. Such value systems, some of which had deep cultural roots, had proven slow to adapt; and
d. *Inadequate financial resources and technology transfer from developed countries.* Official development assistance fell short of pledges by the international community, and debt burdens constrained opportunities by many developing countries to address sustainability issues. Additionally, private-sector investment was volatile and concentrated on specific countries and sectors. Technology transfer to developing countries was inadequate.

At the local level, a number of challenges were identified in the implementation of sustainable development objectives. Of these, financial constraints were most prominent. Other factors included lack of support from national governments; lack of empowerment; difficulties in mobilizing community interest; and insufficient knowledge, technical expertise and information. These challenges reflected an urgent need to build capacity to strengthen decision-making on economic, social and environmental issues. At the end of WSSD, it was obvious that a number of fundamentals needed to be in place for the successful implementation of A21, PFIA21 and the then emerging JPOI. Two of these were crucial. First, there was an urgent need for more countries to convert international obligations into national policy on sustainable development. Second, the transition from normative standards to operational programmes needed to be associated with the creation of new knowledge (through scientific and technological research and the integration of indigenous knowledge) as part of a larger societal problem-solving process. Thus, there was a much greater need for the application of new knowledge and innovative means, and for the reorientation of technology to respond to sustainability challenges.

It was thus obvious that capacity for technological innovation needed to be greatly enhanced in developing countries so that they could respond more effectively to the challenges of sustainable development. The orientation of technology development also needed to change in order to pay greater attention to environmental factors. The relationship between environment and development meant that sustainable development required scientific input to decision-making, as well as the application of technologies. Since 1992, science has been central to addressing A21 challenges in such areas as climate change, global warming, ozone depletion, water quality, land integrity, and air quality.

3. Africa's Performance

By 2002, more than 95 per cent of African countries had ratified the Rio conventions: the Convention on Biological Diversity, the UN Framework Convention on Climate Change, and the UN Convention to Combat Desertification. National policies and laws relating to environment and development had been agreed upon and international environmental treaties had been signed by most African countries. At the national level, a number of countries had made some progress in developing national policies and laws that addressed issues related to sustainable development. Laws had been promulgated on environmental impact assessment; sustainable use of water, forests, and biodiversity; and management of solid wastes. At the local level, a growing number of sustainable development activities were being implemented in some 28 African countries.

During the period, African leaders continued to show commitment by discussing challenges in implementing sustainable development initiatives since the 1997 Rio+5 Forum. The transformation of the Organization of African Unity (OAU) into the African Union (AU) in 2001 represented a significant move towards implementing the sustainable development agenda. AU represents the strongest expression of the continent's aspirations and commitment to enhancing economic, political and social integration in the development of the region in order to reduce poverty and improve quality of life; to promote democracy and good governance; as well as to resolve and manage conflicts.

Progress at the regional level in the implementation of sustainable development strategies was also reflected in the establishment of the New Partnership for Africa's Development (NEPAD). NEPAD, an AU programme that came into being in 2001, is a pledge by African leaders to address the continent's multi-faceted development challenges for the achievement of the MDGs and sustainable development. It recognizes that poverty eradication and improved living conditions for the majority of the population are essential for sustainable development. NEPAD outlines the responsibility of African leaders to articulate national and regional priorities and to manage development by engaging Africans in leading and owning their development.

At the subregional level, a number of RECs demonstrated commitment to the implementation of A21 and PFIA 21. A number of key issues were addressed. These included:

i. Regional infrastructure development to promote trade and integration;

ii. Land policy reforms to manage diminishing grazing lands and land degradation, and environmental management programmes aimed at protecting and rehabilitating land resources;

iii. Formation of working groups to promote sustainable forestry management in response to rapid population growth and increased demand for food and energy resources, which were depleting forest resources; and

iv. Adoption of regional approaches to integrate water resource development and management in response to recurrent drought, growing water demand and water pollution. These regional initiatives helped to prevent conflicts over shared water resources and improve access to potable water. Some subregions also made progress in implementing reforms aimed at sustainable management of water resources.

4. Challenges

A number of countries in the region encountered difficulties in gathering and analyzing national and subnational data on major sustainable development issues, such as natural resource inventories, climate change and desertification. Generally, national-level reporting on these issues was not satisfactory. Other challenges were the need to:

a. Strengthen institutional frameworks in most countries for coordination among ministries and across sectors;
b. Improve coordination among governments, NGOs and the private sector;
c. Develop appropriate legal frameworks;
d. Engage national stakeholders through consultation prior to signing international agreements, and develop appropriate human and institutional capacity to translate these agreements into actionable programmes;
e. Address poverty, illiteracy and lack of awareness in the development and implementation of sustainable development programmes;
f. Manage the increasing gap between population growth and national output;
g. Effectively mainstream gender and women's empowerment in sustainable development; and
h. Strengthen leaders' vision and commitment to implementing sustainable development strategies, policies and programmes.

Thus, between 1992 and 2002, much of the progress in African countries towards implementation of sustainable development commitments had been at the normative rather than the operational level. As the international community concluded WSSD 2002, what was obvious and served as an input to the present Report is that Africa needed:

a. Better integration of the principles of sustainable development into national policies and development programmes;

b. Significant progress in the formulation of major strategic and operational programmes for sustainable development;
c. Guidelines for a system of sustainable development indicators that could be applied by all countries for comparability of results. These should be included in official national statistics for the purpose of monitoring and performance evaluation;
d. Strong institutional and research support to strengthen integration of the economic, social and environmental sectors for sustainable development;
e. Reforms in order to include sustainable development issues in educational curricula at all levels;
f. Improved cooperation and coordination among state agencies and all stakeholders, including civil society organizations, in the development of sustainable development policies and strategic plans at national and subnational levels; intersectoral coordination committees and task forces; and strengthened national councils and committees for sustainable development to guide the development and implementation of programmes for A21 and JPOI commitments;
g. An accessible information network on sustainable development issues;
h. An integrated regional sustainable development framework and action plans across the five subregions and well-articulated continental, regional, national and local sustainable development agendas to drive and guide efforts on sustainable development;
i. More stakeholder engagement through conferences, seminars, workshops and media in order to raise awareness and create space for open discussion of issues; and
j. Intervention in capacity-building in order to support the sustainable development process.

B. Implementation of Sustainable Development Commitments since 2002

In reviewing the region's performance since 2002, this Report presents an analysis based on four elements: governance and institutions, economic sustainability, social sustainability, and environmental sustainability.

1. Governance and Institutions

Good governance has been defined in various ways. Essentially, it is the manner in which public institutions exercise power in the management of a country's economic and social resources for development (World Bank, 1989: 60). Central to this are the process of decision-making and implementation; the capacity of governments to formulate and effectively implement policies and programmes; the space and capacity for political participation, and effective and efficient electoral systems; and peace and security. Some of the key elements include effectiveness and efficiency in public sector management; the accountability and responsiveness of public officials to the citizenry; the rule of law; public access to information; and transparency, equity and inclusiveness (World Bank 1992b: 3; 1994, viii). Good governance analysis examines the relationship between government and markets, government and citizens, government and the private sector, elected officials and appointed officials, branches of government, and between nation states and institutions, among others.

Between 1996 and 2006, 44 elections were held in sub-Saharan Africa, and between 2007 and September 2011, 28 presidential and 28 parliamentary elections were held, with the Democratic Republic of the Congo being the most recent (December 2011). Recent political uprisings in North Africa in favour of democratic reform suggest that the region is moving forcefully in the consolidation of democratic governance. The occurence of political settlement after electoral conflicts through the formation of coalition governments or government of national unity (Kenya and Zimbabwe) is declining. Developments in the region also show that the incidence of military coups d'état, violence and manipulations associated with elections, as witnessed in Côte d'Ivoire in 2011 and are declining but remain indications of continuing challenges in democratic governance.

Essentially, it can safely be asserted with respect to governance and institutions in the region that:

i. The dark years of personalized power, prevalence of unaccountable and authoritarian governments, violation of human rights, rampant corruption, absence of the rule of law, massive state intervention in the economy and lack of decentralization of responsibilities and resources are receding in Africa. The region is today making strides in the building of democratic institutions and will continue to pursue efforts aimed at good governance within the context of the activities of AU, the African Peer Review Mechanism (APRM) and interventions by the RECs, which have been instrumental in addressing issues of conflict and peace management. The APRM has completed a number of country reviews, which have provided important insights into governance and institutional issues, as well as invaluable lessons;

ii. The region is fully conscious of other factors that might contribute to the refinement of the good governance agenda. Neo-patrimonial political practices, which are in conflict with the norms of accountability, transparency and formal institutional rule, are one. There is a need to assess how neo-patrimonial power is exercised, how it affects the operation of the state, and how it integrates formal and informal political processes and determines the nature of the social compact between rulers and ruled;

iii. Elections have become the means for political change in the region. Nonetheless, there is still enormous room for improvement of the quality of governance and democracy. The region continues to learn lessons from contested elections and the struggle for constitutional reform (Kenya, Côte d'Ivoire), and, on balance, has made satisfactory progress in the entrenchment of democratic processes and institutions and will continue to promote a culture of respect for the rules and election results;

iv. Constitutions in Africa remain veritable social contracts, which provide the basis for good political governance. They will continue to be upheld;

v. African countries are encouraging younger generations to participate actively in political processes in order for the voice of youth to be given stronger expression in governance;

vi. The region is mindful that there is still a strong perception that economic incentives underlie politics and tend to subvert democratic and developmental outcomes. Moreover, elements of patronage and clientelism continue to exist. There is nonetheless an abundance of good democratic practices, which hold invaluable lessons for democratic order and effective management of resources for sustained improvement in the quality of lives; and

vii. Corruption still exists and is a reflection of weakness of public accountability mechanisms and suppressed transparency systems. There are, however, strategies and measures that are working. The region will continue to strengthen the demand for public accountability by civil society and other stakeholders in order to establish collective and nationally-owned mechanisms for translating ideas into public policy reforms and change. There is a strong conviction that a viable, strong and well-informed civil society is central to good governance and is an effective partner in the development process.

There is therefore compelling evidence of sustained progress in the pursuit of good governance and the emergence of strong, functional and effective institutions in the region, which are vital for sustainable development. The governance climate is conducive to sustainable development and the region will continue to resist attempts by the international community to dictate governance issues and make them preconditions for development cooperation and assistance.

African Union-NEPAD – Africa's Sustainable Development Frameworks

- The Comprehensive Africa Agricultural Development Programme (CAADP);
- Africa's Science and Technology Consolidated Plan of Action (CPA);
- Environmental Action Plan (EAP);
- Subregional Environmental Action Plans (SREAPs);
- NEPAD Infrastructure Short-Term Action Plan (STAP);
- NEPAD Spatial Development Programme (SDP);
- NEPAD Programme for Infrastructure Development in Africa (PIDA);
- AU-NEPAD Capacity Development Strategic Framework (CDSF);
- AU Gender Policy Framework;
- Framework for Engendering NEPAD and Regional Economic Communities;
- AU Protocol on the Rights of Women in Africa;
- Policy Framework for Post-Conflict Reconstruction and Development (PCRD); and
- AU-NEPAD Health Strategy.

Source: NPCA, NEPAD: A Continental Thrust – Advancing Africa's Development, 2011

African Union-NEPAD Action Plan, 2010-2015

The AU-NEPAD African Action Plan, 2010-2015 covers nine sectors that address the region's sustainable development challenges. Those sectors are:

- Infrastructure – energy, water and sanitation, transport, and information and communication technology;
- Agriculture and Food Security;
- Human Resource Development – health, education, youth development, and social affairs;
- Science and Technology;
- Trade, Industry, Market Access and Private Sector Development;
- Environment, Climate Change and Tourism;
- Governance, Public Administration, Peace and Security;
- Capacity Development; and
- Gender Development.

Source: NPCA, NEPAD: A Continental Thrust – Advancing Africa's Development, 2011.

2. Sustainable Economic Development

(a) Africa's Economic Growth Performance

In order to move from conventional to sustainable development, countries need to be on the path to broad-based, quality economic growth. Growth is a prerequisite as it creates the wealth from which sustainable development commitments and targets can be met. Poverty levels and inequalities in incomes must fall progressively and socio-economic infrastructure, which encourages and supports investment as well as efficient social services, must be available to create the conditions for sustainable development. Without these fundamentals, it would be difficult for most countries in the region to make the transition from conventional to sustainable development. Present statistics place no fewer than six African countries among the world's ten fastest growing economies over the decade 2001-2011 (Angola, 11.1 per cent; Nigeria, 8.9 per cent; Ethiopia, 8.4 per cent; Chad, 7.9 per cent; Mozambique, 7.9 per cent; and Rwanda, 7.6 per cent). Forecasts by the IMF indicate that seven African countries are likely to be among the top ten over the next half decade, 2011-2015 (Ethiopia, 8.1 per cent; Mozambique, 7.7 per cent; the United Republic of Tanzania, 7.2 per cent; Republic of the Congo, 7.0 per cent; Ghana, 7.0 per cent; Zambia, 6.9 per cent; and Nigeria, 6.8 per cent). It has been observed that over the past decade, the unweighted average growth rate was about the same for Africa and Asia. Given current prospects, there is a strong likelihood that Africa will surpass Asia in growth in the next decade.

Present statistics also demonstrate that the region's economies have recovered from the slump that resulted from the recent global recession[6] and that growth prospects are very promising. The recovery of African economies has been driven largely by prudent economic policies prior to the crisis, sustained development assistance, earlier debt relief, and financial resources advanced by the International Monetary Fund (IMF) and the AfDB. Other measures have included the adoption of new and expanded social protection programmes; better policy coordination; and the incorporation of the MDGs and performance indicators into African countries' development strategies. Despite the promising development, a number of countries in the region still face structural obstacles to growth that need to be addressed. In 2010, Africa's average growth rate rose to 4.9 per cent, from 3.1 per cent in 2009. The political developments in North Africa were projected to have a depressing effect on the continent's growth, leading to a fall to 3.7 per cent in 2011, with the possibility of accelerating to 5.8 per cent in 2012. Despite the return to growth, generally the region still faces enormous development challenges.

On balance, given the encouraging economic growth performances, African countries have the potential to make the transition from conventional to sustainable development. However, this will require significant policy shifts, as well as financial and technical resources, to cushion the effect and avoid a rise in poverty levels. Specific programmes and policy adjustments will need to be supported over a fairly long period. In this respect, an Africa Sustainable Development Initiative Fund could be part of the response to the financial resource requirement.

(b) Components of Sustainable Economic Development

Some of the key components of economic sustainability in which progress has been made are sustainable agricultural development, sustainable consumption and production, sustainable tourism development, sustainable industrial development, sustainable energy development, sustainable land management, and sustainable mineral resources development.

The development of sustainable agriculture has been driven by a number of initiatives, including the Comprehensive Africa Agricultural Development Programme (CAADP) endorsed by AU in July 2003. CAADP is a much needed impetus to generate the required momentum in the agricultural sector. Sustainable tourism development has been guided by, among others, the NEPAD Tourism Action Plan, and countries' inclusion of tourism in national development strategies, and the adoption of the global code of ethics for tourism. Sustainable industrial development is being pursued in the context of the Africa Productive Capacity Initiative (the NEPAD sustainable industrial development strategy), the African Productive Capacity Facility, a number of initiatives to promote cleaner production, and the gradual emergence of Cleaner Production Centres that are being led by Egypt, Ethiopia, Kenya, Morocco, Mozambique, South Africa, The United Republic of Tanzania, Tunisia, Uganda, and Zimbabwe. Efforts at sustainable industrial development are also benefiting from improved metrology, standards, testing and quality institutions, which provide complementary support to the introduction of standards by allowing for proper control of product, health and environmental quality, and by providing the means for standards

6 An uneven recovery across the region- Southern Africa, which was hardest hit in 2009, is recovering more slowly than other subregions, with an average growth of almost 4 per cent in 2010/2011. East Africa, which best weathered the global crisis, is projected to again achieve the highest growth, with more than 6 per cent on average in 2010/2011. North and West Africa are expected to begin to grow at around 5 per cent and Central Africa at 4 per cent during the same period.

certification. These institutions also promote best practices and encourage the development of new products through Research and Development (R&D).

The Africa region has also made progress towards diversifying energy development into sustainable and environmentally-friendly sources in order to improve access to, and the affordability, economic viability, social acceptability and environmental soundness of energy services and resources. Reforms are being pursued to remove market distortions, establish domestic programmes for energy efficiency, and accelerate the development and dissemination of energy efficiency and energy conservation technologies. It was in support of infrastructure development that, on 24 July 2010, AU, NEPAD and AfDB launched a reinvigorated Programme for Infrastructure Development in Africa (PIDA). PIDA provides a vision, a strategic framework and a programme to be implemented up to 2030. The programme activities focus on developing transportation, energy, information and communication technologies, as well as transboundary water basins. Infrastructure and regional integration are key priorities of the AfDB 2008-2012 medium-term strategy. The infrastructure sector alone accounts for more than half of AfDB operations, which exceeded US$ 6 billion in 2009. The AfDB infrastructure project preparation facility has provided funding for the preparation of several regional projects.

Other programmes that are supporting the region's efforts towards sustainable energy development include the World Bank AFREA programme for the development of renewable energy in sub-Saharan Africa, regional power pools, reforms and awareness campaigns on efficient use of energy, which are showing results in Ethiopia, The United Republic of Tanzania and South Africa. Nigeria has launched an extensive reform of its electricity subsector that will provide for massive privatization of investment. Other initiatives include the Africa Electrification Initiative (AEI) – a three-year AFREA and German Technical Cooperation (GTZ)-supported programme launched in 2009 –, the Biomass Energy Initiative for Africa (BEIA), and Lighting Africa, which became effective in 2007. Other actions include actions by the International Atomic Energy Agency (IAEA), which focus on promoting sustainable use of natural resources and increasing access to affordable energy; the UN-Habitat Energy Scale-Up Initiative; the UNDP/ Institut de l'énergie et de l'environnement de la Francophonie programme for capacity-building and investment in mini/micro hydropower, implemented in partnership with UNECA, UNIDO and UNEP in 11 African countries; the UNIDO Energy for Productive Use programme; the UNEP African rural energy development project; and regional rural electrification strategies developed in different forms by various RECs, such as EAC, ECOWAS and SADC.

There is a need to build capacity that is responsive to and inclusive of social and environmental factors in investment decisions related to energy projects. Institutional capacity is required for energy planning, analysis and modelling, using specific national and regional data to inform decision-making and policy development. Governments will need to intensify efforts to decentralize the decision-making process for energy investment and projects, and promote greater participation by local government, and regional, communal, and community-based organizations. More action needs to be taken in the area of interregional cooperation. Frameworks and incentives need to be encouraged, developed and strengthened to promote regional integration of energy projects, programmes and systems. With the support of the international community, RECs could promote subregional and regional energy trade as a catalyst for development in the region and in order to improve the share of renewable energy in Africa's energy mix. African governments should promote energy diversification, and remove barriers to fairer competition of all energy resources. International development partners, including the UN System, should improve their financial and technical support in order to enhance implementation of NEPAD's energy initiative.

In the interests of economic sustainability, sustainable land management has encouraged countries in the region to adopt innovative approaches to land management, especially in the area of land rights, with implementation of important regional initiatives such as the Pan-African Framework on Land Policy for Securing Rights, Enhancing Productivity and Improving Livelihoods. With the support of UN-HABITAT, land policy and land reform benchmarks and indicators are being developed through this initiative in order to enable policy development and implementation processes and their outcomes to be monitored and evaluated. Several African countries are benefiting from the AUC/ECA/AfDB Land Policy Initiative, and the Global Land Tool Network (GLTN), an initiative by UN-Habitat and partners to document best land management practices and tools in the region. Progress has been made on sustainable mineral resources development by the countries in the region in order to reform legislation on the mining industry. These reforms are geared towards stimulating investment, ensuring equity in access to mining rights and resources, empowering disadvantaged communities and groups, and ensuring access to the benefits of the industry by a growing percentage of the population. Mining companies are investing in exploration activities and the exploration budget is growing. Following the entry of China and India into the region's mining sector, there has been a leap in the exploration budget. The outlook for outputs of the various minerals is very promising, based on projections over the period, 2005-2011.

(c) Sustainable Social Development

During the period under review, the region made progress in the pursuit of social sustainability. Its social development framework is defined by the AU Social Policy Framework, while protocols are defined by RECs. The key elements in the analysis of sustainable social development include the extent of social sector development, poverty eradication, and the level of inequality. The region recorded a number of success stories in the achievement of the MDGs and is on track. A number of countries made good progress, but overall progress is somewhat slow. Nonetheless, the evidence is strong and encouraging that, with the right policy mix, efficient use of resources, improved governance and enhanced and sustained international support, the region will achieve many of the MDGs. At the MDGs Review Summit in September 2010, world leaders reaffirmed their commitment to achieving the goals by 2015, and a number of promising initiatives to scale up success stories, such as the UNDP MDG Acceleration Framework, are under way.

Poverty and Inequality: While there has been respectable economic growth, this has come with an increase in inequality. The UNDP's new inequality-adjusted Human Development Index shows that the human development ratings of African countries have fallen substantially, if adjusted for inequality in wealth distribution. For example, the adjustment reduces ratings for countries such as Central African Republic, Mozambique and Namibia by as much as 40 per cent. Social protection frameworks have also remained weak and ineffective. The recent global financial crisis provided a good test of the vulnerability to shocks of some segments of the region's populations While efforts were made to implement the AU Social Policy Framework, a number of countries still lack mechanisms for social protection, as basic social security is still beyond the reach of many. Less than five per cent of the working age population is covered by contributory pension schemes, unemployment benefits and other social safety nets. The poor are therefore still exposed disproportionately to the effects of economic contraction and price rises. Worse still, and to the detriment of millions of the region's people, the strong economic growth that has occurred has been largely jobless and without visible poverty-eradication benefits. There are various projections of the region's growth prospects and their implications for the poverty eradication goal. While there is general optimism, UNCTAD projections show that the region's per capita income will grow only 2.7 per cent in 2011 and 2.8 per cent in 2012, both of which are below the 3 per cent threshold considered the minimum to make a dent in poverty. The need for accelerated progress is also underscored by the IFAD 2011 Rural Poverty Report, which points to the fact that sub-Saharan Africa is still home to a third of the world's poor, a number that has risen from 268 million to 306 million over the past decade. The UNDP Multi-dimensional Poverty Index puts the number of poor in the region as high as 458 million. Poverty has become both a rural and an urban phenomenon.

Education: Progress in achieving universal primary education has been the remarkable success story in Africa's MDG performance. The majority of countries in the region are on track to achieve the goal by 2015. Outstanding and notable progress has been recorded by Burundi, Ethiopia, Ghana, Kenya, Mozambique and The United Republic of Tanzania through measures that have included abolition of school fees, growth in public investment, and enhanced donor support, especially the World Bank's Education for All Fast Track Initiative. Progress is still needed in some areas, however, including quality of education, completion rates, enrolment in secondary and tertiary education, reform of educational systems and curricula, teaching capacity, and infrastructure. The targets in these areas are far from being achieved in light of the fact that more than 30 million children in the region, most of them girls, still do not go to school, and the number of new teachers needed between now and 2015 equals the present teaching capacity of the region. The challenge of expanding tertiary education, which is essential for sustained growth and development, is even greater: the current enrolment rate is only six per cent, female participation is low, and more than 40 per cent of faculty positions are vacant. Much still needs to be done to derive benefits from investment in higher education, improve strategic planning and reform curricula. More attention also needs to be given to making skills acquired relevant to market needs, as this is of vital importance for employment generation and the reduction of youth unemployment, which is becoming a threat to social stability.

Gender Equality and Women's Empowerment: The international and regional frameworks for gender equality commitments are the Convention on the Elimination of all forms of Discrimination against Women (CEDAW), the MDGs, the AU gender strategy, and strategies adopted by RECs. Thus far, there has been measurable progress in the implementation of these commitments. The gender equality and women's empowerment dimension of social sustainability saw the Protocol [to the African Charter on Human and Peoples' Rights] on the Rights of Women in Africa expanded to include the definitions contained in the Declaration on the Elimination of Violence against Women, in particular those related to economic violence or harm. Twenty-nine African countries have ratified the Protocol; in October 2010, AU launched the African Women's Decade. There was steady, albeit tardy, progress towards universal primary education, the empowerment of women, and gender parity in educational enrolment; significant and encouraging improvements in the proportion of seats held by women in national parliaments, but with a visibly low rate of participation by women in the executive, the judiciary, traditional and other public spheres across the region.

Some progress has been made in efforts to implement gender equality commitments through strengthening social policy and enacting laws to promote women's socio-economic rights. However, ten countries still maintain reservations to the CEDAW and periodic reporting to the UN Committee on CEDAW, with some countries not having reported at all since 1992; 18 of the 28 countries practising female genital mutilation have outlawed the practice; Since 2007, six countries have developed National Action Plans on women, peace and security; and development partners continue to strengthen their support in socio-economic sectors aimed at addressing vulnerable groups and promoting gender equality.

There is a continuing upward trend in political participation by the region's women, who now hold 18.5 per cent of parliamentary seats, up from 15 per cent in 2010. Women's representation in national and regional parliaments in sub-Saharan Africa is now higher than in most other developing regions. Most countries are on track to achieve gender parity in primary education by 2015. A growing number of countries, including Benin, Burkina Faso and Senegal, have mainstreamed gender concerns into their national development plans and poverty reduction strategies. Over the last five years, Lesotho has achieved the greatest overall improvement by any nation measured by the World Economic Forum's Global Gender Gap Index.

In spite of the improvements, challenges and constraints remain. There is a paucity of gender-disaggregated data, gender budgeting is still not adequately encouraged, there are significant gender gaps in health, employment and wages, and cultural barriers still block effective utilization of women's talents. Labour market conditions restrict access to employment and sociocultural barriers are still major impediments to the participation of the vast majority of women, who face income and job insecurity. Women constitute a majority of the agricultural workforce in the region, producing about 80 per cent of the region's food, yet they own less than one per cent of the land on which they work. They, along with their children, are often the first to suffer the effects of economic downturn, drought, famine and violent conflict.

The mechanisms for the integration of gender equality and women's empowerment still remain weak at all levels, lacking adequate capacity, authority and funding. Line ministries have not reached gender equality targets due to low levels of resource allocation. Gender concerns continue to be treated rhetorically or as separate women's projects. Gender disaggregated data and information from gender-sensitive indicators are often not collected, lost in the compilation of published data, or simply not used.

The region needs to support women's press and communication initiatives. Women should also be allowed to play a prominent role in formulating and implementing sustainable development policies. NEPAD needs to ensure that economic empowerment of women is one of the priorities of its social and economic agenda. Culturally sensitive programmes must be initiated that entrust men and boys with responsibilities to promote gender equality and girl/woman empowerment. The need to generate quality gender disaggregated data in order to effectively monitor progress in achieving gender equality is also essential. Development partners should ensure that adequate finances are allocated to supporting African partners in translating gender equality commitments into concrete policies, actions and programmes.

There is a need to adjust human development ratings for gender equality in order to encourage countries in the region to do more to show results. Achieving the goal of gender equality and women's empowerment is not the crucial aim of gender equality commitments, which is to draw on the vast skills, knowledge and energy of women, currently grossly underutilized, in order to promote growth and development.

Health: The race to reduce infant and maternal mortality by 2015 is being won in the region, but has required enormous efforts in order to overcome obstacles. There have been impressive results in infant mortality reduction. Mozambique has achieved a reduction of over 70 per cent, Malawi one of 68 per cent, and Niger one of 64 per cent. Maternal mortality rates have also fallen. Countries such as Burundi, Cape Verde and Egypt have reported significant reductions. Efforts are therefore yielding good results and need to be boosted. It is in this context that the region's leaders at the AU Summit in July 2010 pledged to increase financial and political support for female and child health and to continue to work closely with interventions such as the Campaign on Accelerated Reduction of Maternal Mortality in Africa (CARMMA).

The fight against malaria has also progress and significantly. The results have been astounding: distribution of insecticide-treated mosquito nets has protected more than 578 million people at risk of contracting malaria in sub-Saharan Africa; 11 countries in the region have reduced by some 50 per cent the number of confirmed malaria cases, and the majority of countries are now on track to rolling back the advance of the disease by 2015.

Significant progress has also been made in the elimination of river blindness, polio, measles, guinea-worm disease and mother-to-child transmission of HIV/AIDS. Routine immunization is progressing across the region and several new vaccines, including for meningitis and pneumococcal disease, are being introduced and yielding beneficial results. These results have been possible in the region as a result of government policies and programmes, and support from the international community through innovative funding mechanisms, such as the Global Alliance for Vaccinations and Immunization (GAVI) and the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria, and interventions by agencies such as UNAIDS, WHO, and the World Bank, as well as support for successful regional health programmes, such as the African Programme for Onchocerciasis Control (APOC), SMS for Life, and the Roll Back Malaria Partnership, among other, silent, initiatives that are yielding beneficial results.

The achievement of health targets by 2015 is within reach, if African governments and the international development community honour their pledges. There is indeed substantial goodwill within the donor community. In June 2010 leaders at the G8 Summit pledged to mobilize US$ 5 billion to accelerate progress in the achievement of MDGs 4 and 5 as part of the Muskoka Initiative to cut down maternal and new-born mortality in poor countries. The MDG Review Summit in September 2010 saw world leaders and other development stakeholders pledging to provide a total of US$ 40 billion for health over the next five years. The replenishment meeting of the Global Fund in October 2010 raised US$ 11.7 billion for the period 2011-2013, an increase from US$ 9.7billion for the 2008-2010 programme phase. New commitments to GAVI were announced by a number of donors ahead of the replenishment meeting. African governments in 2001 signed the Abuja Declaration, which enjoined countries in the region to allocate 15 per cent of their public expenditure to health.

The challenge is to turn these pledges into actual disbursements. While the region looks forward to the actualization of the financial commitments by the donor community, it is critical that governments honour the pledge they made in the Abuja Declaration. At present, statistics show that some 19 countries spend less on health than they did when they signed the Declaration in 2001. Insufficient funding remains the most significant threat to health systems in the region. Resources are needed to enable health systems to respond effectively to the high prevalence of HIV/AIDS and non-communicable diseases, which include cancers, diabetes and cardiovascular disease, which are set to rise over the next two decades.

Access to Water and Sanitation: Access to water and sanitation is a key element in sustainable social development. It was in recognition of its importance that the eThekwini Declaration was made by African leaders to allocate 0.5 per cent of gross domestic product to water and sanitation, and that the African Ministers' Council on Water and the African Water Facility were set up. In order to guide the region's investment, AfDB, which implements a Rural Water Supply and Sanitation Initiative, had estimated that an investment of US$11 billion annually is required to meet the region's drinking water and sanitation needs. Emphasis on water and sanitation was also driven home in July 2010 when the UN General Assembly declared access to clean water and sanitation a human right.

Progress is being made towards attaining the goal of halving the proportion of the region's population without sustainable access to clean drinking water by 2015. At present, 26 countries are on track to attaining this goal, while nine are expected to meet the MDG target of halving the proportion of the population without sustainable access to basic sanitation by 2015. These countries are Algeria, Morocco, Tunisia, Libya, Rwanda, Botswana, Angola, South Africa and Egypt. At present, 60 per cent of the population of sub-Saharan Africa has access to improved sources of drinking water and less than half has access to basic sanitation facilities. These statistics point to the need to step up investment, as the challenge is that not only some 40 per cent live in water-deprived areas but that the amount of water available per person in the region is below the global average and is declining due to falling levels of groundwater as a result of climate change and over-exploitation. Present investment by governments, which stands at 0.2 per cent of GDP as against the 0.5 per cent put forward by the eThekwini Declaration, means the target of US$ 11 billion is not being met. Also required is improvement in the governance of the water sector; better management of national sources, the 63 shared water basins, and the irrigation needs of the agricultural sector; and capacity to drill for water and maintain water infrastructure, especially in the communities.

Food Security and Hunger Reduction: Countries in the region have made progress towards meeting the MDG target of reducing extreme hunger by 2015. In spite of that, the region remains the most food-insecure in the world. Hunger is still a major challenge and this is being compounded by rising food prices. Food prices are now higher than at any time since 1984 and could serve as a trigger for social unrest. The region is making efforts to address the food insecurity and hunger challenge through a number of agricultural initiatives, including CAADP, under which 29 countries have signed up to committing ten per cent of their national budget to agriculture and seeking to achieve a minimum six per cent growth rate in agricultural productivity. Also at the regional level is the Alliance for a Green Revolution in Africa (AGRA), which is helping to initiate financial partnerships and risk-sharing instruments with a number of institutions in order to mitigate the risk of lending by commercial banks and other financial institutions to smallholder farmers, and value chains that support them. International responses have also been robust. These include the G8 L'Aquila Food Security Initiative, the Global Agriculture and Food Security Programme, and the World Bank's Global Food Crisis Response Programme. There are attempts to create more transparency around food stocks held by large exporters in order to avoid panic caused by market uncertainty about the availability of commodities.

As the region's food insecurity and hunger challenge existed before the rise in food prices, there is a need to address structural barriers to food security. Some of these, which the Rio+20 summit will need to revisit, are the disadvantages the region faces with respect to international trade rules and agricultural subsidies; constraints to productivity arising from poor infrastructure; insufficient agricultural research and extension services; and lack of improved seeds, fertilizers and plant protection material. Other factors include poor soil and water management; poor access to credit and marketing services; inefficient and wasteful agricultural value chains; and loss of production due to conflict and diversion of food products to the production of biofuels. In order to address the food insecurity challenge, the region needs to scale up investment in agriculture. African countries must meet the minimum level of investment put forward under CAADP. Focus on smallholder farmers needs to be intensified.

Youth Unemployment: Every year, some ten million new graduates join the labour market in the region. Although Africa has in recent years been experiencing impressive economic growth, it has not generated meaningful employment. The result is growing youth unemployment, which has implications for social development. Youth unemployment is now a major social development challenge and was one of the factors in the demand for political reforms that swept through much of North Africa in early 2011. In addition to rising unemployment, labour markets have not been flexible enough to absorb the growing supply of young workers. Given the region's rapidly growing population, the demographic pressure on labour markets is set to continue in many African countries.

The dynamics and causes of youth unemployment in Africa are complex and multidimensional. Youth (those between 15 and 24) represent more than 60 per cent of the region's total population and account for 45 per cent of the total labour force. Unlike other developing regions, sub-Saharan Africa's population is becoming younger, with youth as a proportion of the total population projected at over 75 per cent by 2015 due to the high fertility rate underlying the demographic momentum. It is expected that this increase in the number of youth will not decline for 20 years or more. The incidence of youth unemployment in sub-Saharan African is estimated to be over 20 per cent. It is also estimated that about 133 million youth (more than 50 per cent of the youth population) in Africa are illiterate. Many youth have few or no skills and are therefore largely excluded from productive economic and social life. Those with some education often have skills irrelevant to current demand in the labour market, this in a context in which educational and skill requirements are increasing. The result is millions of unemployed and underemployed youth. University graduates are the most affected by youth unemployment. This has led many to question the capacity of higher education institutions in the region to provide youth with skills and knowledge adapted to the needs of the labour market. The link between youth unemployment and social exclusion has been clearly established: inability to find a job creates a sense of vulnerability, uselessness and idleness among young people and can heighten the attraction of illegal activities. For many young people today being without work means being without the chance to work themselves out of poverty.

By including youth unemployment in the MDGs, the Millennium Declaration had an important and catalytic impact on drawing international attention to the problem of unemployed young people. Under target 16 in Goal 8, the resolution "to develop and implement strategies that give young people everywhere a real chance to find decent and productive work" is the only explicit reference to youth in the MDGs (UNDP, 2006). The International Labour Organization (ILO) recently released a frightening report on unemployment worldwide. It indicated that more than 1.5 billion people, or half the world's working population, were in vulnerable or insecure jobs and that 205 million workers were unemployed last year. According to the ILO, the official figure is probably an underestimate because many people have given up trying to find a job. The most unsettling aspect of the report is that 77.7 million young people between the ages of 15 and 24 are unable to find work. This is particularly a major challenge for the region. There are 200 million Africans in this age bracket, comprising more than 20 per cent of the region's population. Worldwide, youth account for 43.7 per cent of total unemployed, although they account for only 25 per cent of the world's working population. In sub-Saharan Africa, about 60 per cent of the unemployed are youth, and an average of 72 per cent of youth live on less than US$ 2 a day.

The region is making efforts to rise to the challenge of youth unemployment, albeit inadequately, given the challenges facing growth. The 17th African Union Summit, held from 30 June to 1 July 2011 in Malabo, Equatorial Guinea, was devoted to the theme of "*Accelerating Youth Empowerment for Sustainable Development*". Some recent major AU meetings, in particular those of March 2010, April 2011 and July 2011, successively provided opportunities to raise themes related to youth unemployment. These touched on employment policies and their financing with a view to reducing unemployment; social policies and the promotion of youth employment; and the acceleration of youth empowerment. The declaration on youth employment in Yaoundé, Cameroon, at the 8th Session of the AU's Labour and Social Affairs Commission, called upon the 17th Assembly of AU Heads of State and Government to promote youth employment. The determination of AU leaders to improve the employment situation will undoubtedly reinforce the commitment made in Yaoundé by Ministers of Labour and Social Affairs, AU employers and trade unions to reduce unemployment of young people and women by at least two per cent a year over five years, and to harmonize labour market information systems by supporting the development, implementation and evaluation of employment policies. The 17th Summit provided an unprecedented opportunity for African Heads of State and Government, as well as young men and women, to participate in an open and frank debate on sustainable solutions to the concerns of the region's youth. Some of the proposals put forward included: increased investment in education and training; increased investment to improve the integration of young people into economic, political and social life; introduction of vocational training that meets labour market needs; and promotion of grass-roots participation in decision-making processes. These strategies could form "a development incubator", by reducing social deprivation, improving the competitiveness of the education system and promoting youth empowerment.

Strengthening Indigenous Knowledge: Some responses to social development challenges reflect innovations in the use of knowledge that improve the quality of life of a people or region. This is where indigenous knowledge connects with social development. Communities identify themselves easily with indigenous knowledge systems that have enabled them to live in harmony with their environments for generations. These knowledge systems are important tools in environmental conservation and natural disaster management. The global scientific community acknowledged the relevance of indigenous knowledge at the World Conference on Science, held in Budapest, Hungary from 29 June to 1 July 1999, and endorsed it by recommending that scientific and traditional knowledge should be integrated, particularly in the environment and development field. UNEP recognizes the role of indigenous knowledge in the conservation of natural resources and management of natural disasters (UNEP, 2008). Knowledge and access to information are essential for effective environmental management and have significant impacts on the economy and the livelihood choices people make. Indigenous knowledge systems based on centuries of observation and continuous development in response to changing social and environmental conditions are an important resource for many rural people.

Indigenous knowledge, particularly agricultural and environmental knowledge, gained international recognition after UNCED in June 1992. A21 emphasizes that governments and intergovernmental organizations should respect, record and work towards incorporating indigenous knowledge systems into research and development programmes for the conservation of biodiversity and the sustainability of agricultural and natural resource management systems. Other international documents, such as the 1980 "World Conservation Strategy" by the International Union for the Conservation of Nature and Natural Resources (IUCN), also paved the way for recognition of the important role played by indigenous knowledge in biodiversity and human development. The value of indigenous knowledge systems in facilitating development is now gradually being recognized by governments and development agencies (UNEP 2008).

Although in the implementation of sustainable development commitments little attention has been paid to growing and applying indigenous knowledge in the region, this knowledge is still very much intact among indigenous (or local) communities in many parts of Africa. A survey by UNEP (2006) of four countries – Kenya, South Africa, Swaziland and The United Republic of Tanzania – provided invaluable information on the application of indigenous knowledge in environmental conservation and natural disaster management. The study found that indigenous knowledge systems had enabled the various communities in those countries to live in harmony with their environment for generations, and the systems are important tools in environmental conservation and natural disaster management. Nearly all the communities had powerful structures that exercised authority to ensure smooth compliance with the observances and rules of indigenous knowledge. The study provided useful insights into how those communities interacted with their environment. It documented the various ways the communities relied on indigenous knowledge to sustainably utilize their natural resources. The indigenous knowledge systems provided them with a variety of options and innovations for dealing with the challenges of nature conservation and disaster management in the course of making a living. The knowledge systems were particularly evident in agricultural production, food preservation and storage, health care, and in dealing with natural disasters.

Through indigenous knowledge, communities in the region have been able to protect and manage ecosystems, face many natural hazards, grow drought-resistant and early-maturing indigenous crop varieties, wild fruits and vegetables, practice wetland cultivation, livestock diversification and splitting that have enabled them to survive food, nutrition, health-care and climatic challenges with little or no support from the outside world. The communities were well aware of the disasters that faced them and in most cases had the knowledge and administrative structures to cope with them. At the same time, the communities knew that a well-conserved environment helped them reduce risks associated with natural disasters. Each community had an array of early warning indicators and well-developed structures through which the wisdom of the community was applied to deal quickly and efficiently with disasters.

With the growing number of African governments and international development agencies now recognizing that local-level knowledge and organizations are a vital foundation for participatory approaches to sustainable and cost-effective development, the region stands to gain much by exploiting its application on a much wider scale. Strengthening the framework for developing, applying and sustaining indigenous knowledge will prevent loss of this asset, which is invaluable to social development. The region's older generation, the traditional custodians of indigenous knowledge, are dying off without leaving written records of their knowledge, at the same time as rapid environmental, socio-economic and political changes are occurring in many communities in the region, which place indigenous knowledge in danger of extinction and obliteration by globalization and new technologies (UNEP 2008).

There is a role for indigenous knowledge in sustainable development, especially social and environmental sustainability. Consistent with what UNEP (2008) has recommended, such knowledge needs to be documented and shared through indigenous knowledge databanks and networks. Indigenous knowledge should be incorporated into national development plans and included in educational curricula. Efforts should also be made to integrate indigenous knowledge systems with modern knowledge, and appropriate laws enacted to protect intellectual property in indigenous knowledge (UNEP, 2008).

(d) Sustainable Environmental Development

The pursuit of environmental sustainability has been an essential part of the region's effort to reduce poverty, as environmental degradation is inextricably and causally linked to problems of poverty, hunger, gender inequality, and health. Livelihood strategies and food security of the poor often depend directly on functioning ecosystems and the diversity of goods and ecological services they provide. Insecure rights to environmental resources, as well as inadequate access to environmental information, markets, and decision-making, limit the capacity of the poor to protect the environment and improve their livelihoods and well-being (UNECA, 2008).

More than 30 per cent of global dry lands are located in susceptible dry land regions in North Africa, the Sahel and the southern part of Africa. They cover almost two billion hectares in 25 countries, representing 65 per cent of the continent's land mass. Over 400 million people live in the dry lands, the majority of them the rural poor with an annual population growth rate of three per cent. The dry land is under threat from deforestation, soil erosion, nutrient mining, recurrent drought and climate change, potentially resulting in land degradation and desertification, and aggravated poverty. Sustainable agricultural innovations are key to limiting adverse impacts on the environment and on the livelihoods of rural populations (ECA/OECD, 2011). Without complementary societal and government action, markets can be weak on environmental sustainability, and therefore will tend to create the conditions for environmental degradation (UNDP, 2010).

In order to promote environmental sustainability, the Joint Secretariat of AUC, ECA and AfDB has been instrumental in initiating and launching regional initiatives, including the Land Policy Initiative and the ClimDev-Africa Programme, which seek to advance Africa's sustainable development agenda. NEPAD has a number of major frameworks or programmes, which integrate environmental concerns in sustainable development. These include CAADP; the Environmental Action Plan (EAP); the Infrastructure Short-Term Action Plan (STAP); the Framework for Water and Energy; the Capacity Development Strategic Framework (CDSF); and Frameworks on Education, Health and Information and Communications Technology.

The African region is making progress in addressing environmental issues in its quest for economic and social development. Countries in the region are signatories to a number of Multilateral Environmental Agreements (MEAs), which provide frameworks for addressing environmental challenges. They are party to at least 30 conventions at the global level dealing with various aspects of environmental management and related areas, including trade, which impacts directly on environmental sustainability. Most countries in the region have signed the three international conventions adopted at UNCED in 1992, namely, the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC) and the United Nations Convention to Combat Desertification (UNCCD). Other MEAs to which African countries are party include the United Nations Convention on the Law of the Sea (UNCLOS) and those dealing with international trade in endangered species, the management of migratory species, hazardous waste management, cultural heritage, ozone depletion, biosafety, invasive alien species and forest management.

Also of vital importance are agreements reached in the area of trade, especially the World Trade Organization (WTO) and related agreements on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and sanitary and phytosanitary provisions. Several agreements on agriculture, such as the International Convention for the Protection of Plants, have important implications for biodiversity and the sharing of benefits arising from its use. Human rights and development agreements adhered to also help the region to rethink its strategies for responding to environmental issues.

At the regional and subregional levels, the region has endorsed a number of agreements and protocols for the protection and management of the environment. These promote collaboration and harmonization of national laws, policies, strategies and programmes. Foremost among them is the African Convention on the Conservation of Nature and Natural Resources (ACCNNR) adopted by AU in 2003. Many subregional organizations have spearheaded the development of environmental management policy and law. There have been important multilateral agreements, which include cooperation in the management of the region's 63 shared river basins, wildlife and forests.

Implementation of commitments has been guided by institutions set up at the regional and subregional levels. The AU, through its NEPAD agenda, remains the region's most decisive response to the issues of sustainable development. The African Ministerial Conference on the Environment (AMCEN) is one platform that has been instrumental in determining the region's common position on environmental and climate change issues and providing the region's negotiators and leaders with negotiating strategies and information. Its activities have contributed to the development of collaborative approaches to environmental management in the region. The AU Constitutive Act provided for the establishment of a specialized technical committee on natural resources and the environment. The Pan-African Parliament, established in 2004, has a permanent standing Committee on Rural Economy, Agriculture, Natural Resources and Environment. By spurring implementation efforts, the region has continued to signal its political commitment to addressing environmental issues, as is evidenced by a number of recent endorsements, including the 13th AMCEN Session of June 2010, the 7th African Development Forum, the AU Summit in January 2011, and the Conference of African Ministers of Economy and Finance (CAMEF) in March 2011.

Efforts to involve other stakeholders, including civil society, are helping to broaden the consultative base through a number of initiatives. These include UNEP's Global Civil Society Forum and Global Women's Assembly on Environment. These and other initiatives in the region have played key roles in widening the arena for the expression of public concerns, interests and priorities in environmental management and governance issues. The participation of civil society played a valuable role in the development of AU protocols on critical issues of environment and development concern, including biosafety, genetic resources and women's rights.

The region has also made progress in the development of partnerships with governments and the business sector in response to environmental issues. These have led to the establishment of transboundary natural resource management areas, management of protected areas and implementation of environmental impact assessments. Cooperation has also been stepped up in the management of shared water resources, malaria and chemicals; peace-building; and the pursuit of food and nutrition security.

Implementation of environmental sustainability commitments has seen progress in a number of areas, including growth in the practice of sustainable and organic agriculture, as Malawi and Uganda have shown; impressive growth in the development of renewable energies in countries such as Egypt and Kenya; and planned massive investment in solar energy in South Africa. Significant ecosystem restoration and sustainable tourism initiatives have taken place in Namibia and Rwanda, and improved forest management in the Republic of the Congo and Gabon. The Republic of South Africa is at present setting up the South African Renewables Initiative (SARI) to scale up production of renewable energy in the country. National Cleaner Production Centres (NCPCs) have been set up in some countries, including Egypt, Ethiopia, Kenya, Morocco, Mozambique, South Africa, The United Republic of Tanzania, Tunisia, Uganda and Zimbabwe. Metrology standards, testing and quality institutions are being strengthened or established to provide complementary support for health and environmental quality programmes.

In spite of the progress in the implementation of commitments around the environmental pillar, there are monumental challenges requiring urgent attention. Among the most visible is the challenge of achieving balanced integration of the three pillars of sustainable development in planning, budgeting and implementation of plans and programmes. There is a pressing need for national and subregional economic policies to adequately address environmental consequences. Mechanisms and administrative systems dealing with environmental issues are still weak. There is still insufficient public awareness about the real causes and magnitude of environmental problems and the consequences of not dealing with them. Also worthy of mention is inadequate forecasting of emerging environmental problems.

The region has enormous potential to benefit from an environmentally- friendly development strategy. In order to make a significant leap, however, it will need to undertake the following:

a. Strengthen implementation capacity; review policies and development programmes that are harmful to the environment, while encouraging others that are beneficial, such as a public procurement policy that favours environmentally friendly behaviour by the private sector;
b. Empower environment ministers to achieve the full potential of their portfolios;
c. Pursue improvements in international environmental governance for an improved response to Africa's sustainable development needs and to this end explore the possibility of an enhanced role for and enhanced effectiveness of UNEP in the region;
d. Step up financing and other means of implementation for environmental sustainability initiatives;
e. Encourage the development and application of measures of growth performance that adjust for environmental degradation; and
f. Invest and participate in collaborative research geared towards improving understanding of how ecosystems such as forests and marine ecosystems can generate multiple benefits to support improved livelihoods.

C. Interlinkages

The three pillars of sustainable development are strongly interlinked and this has far-reaching implications for policies and processes in sustainable development, which need to be handled with considerable care. UNEP (2006) defines interlinkages in the context of the environmental sector as the processes and workings of environmental management which reflect the systemic characteristics of ecosystems and environmental problems, and the interconnection of human processes and environmental processes at all levels of human and natural ecosystem interaction. Natural resources, which consist of land, the atmosphere, water, biodiversity and human activities, function as a system and are all linked in a complex web of interactions and feedback. Sustainable development challenges are also interlinked across spatial, thematic and institutional processes. Changes in the natural resource base and challenges to sustainable development are caused by the same sets of drivers, which include demographic change; economic processes; scientific and technological innovation; distribution patterns; cultural, social, political and institutional processes; consumption and production patterns; and globalization that has brought about increased flow of goods, services, capital, technologies, knowledge, information, ideas and labour at global level.

Drivers are the pressures imposed on natural resources by human activities, including land use/cover change (e.g. agricultural expansion or reduction, urban expansion, land and soil degradation, deforestation, habitat fragmentation); harvests and resource consumption, including over-exploitation (e.g. tree-felling, mining, fishing and harvesting of species); species introduction/removal (e.g. invasive, genetically modified organisms, removal of fish); climate variability and change (e.g. temperature, precipitation, sea level, extremes, forest fires); air pollution (e.g. greenhouse gases, acidification, CO^2 enrichment); external inputs (e.g. irrigation, fertilizers, pest control chemicals); natural, physical and biological processes (e.g. volcanoes, evolution); and disasters such as war and climate change. There is an intricate relationship among these drivers, which in turn has effects on the natural resource base. Understanding these interlinkages helps in the design of policies and programmes to address sustainable development challenges.

The region's development challenges call for an interlinkages approach to sustainable development in order to facilitate an effective response to complex human-ecological systems. In order to facilitate more effective compliance with international conventions, treaties, protocols and agreed development goals, the interlinkages approach highlights areas for cooperation and joint programming among actors, countries, subregions and regions. Adopting an interlinkages approach to policy formulation and programme development can therefore help to ensure that interventions are more relevant, robust and effective, and that policies are based on principles that are cross-sectoral (UNEP, 2006). Thus, an interlinkages approach offers an opportunity for better coordination and harmonization of policies in order to eliminate any contradictions, avoid overlaps, and boost capacity to implement sustainable development.[7] When fully implemented, the sustainable development through interlinkages approach results in a reduction of conflicts and duplication of work, a strengthening of complementarities and synergies, and enhanced exploitation of development opportunities.

The complexity and magnitude of the interlinkages among the pillars of sustainable development require that policymakers prioritize those interlinkages that require immediate attention and that will optimize growth and well-being as a combination of interrelated actions. Such actions require enhanced institutional systems through policy harmonization and monitoring; increased scientific understanding of the interlinkages through science, technology and innovation; and adaptive development governance.

The Africa region is fully aware of the mutually interdependent and reinforcing nature of the pillars of sustainable development and the significance of such interlinkages. It is this realization that underlies NEPAD's preference for an interlinkages approach to sustainable development in the region. Little progress has been made to foster a balanced integration of the pillars in national and subregional integration strategies, however. In order to exploit fully the benefits of interlinkages, the region needs appropriate institutional and strategic frameworks and supporting systems that promote a holistic and integrated approach to development challenges. Global, regional and national level strategic responses to the MDGs provide invaluable opportunities to harness the synergies of the pillars of development. This report calls for strengthened interlinkages among the pillars in order to achieve the goals of sustainable development.

IV. Bridging Implementation Gaps and Means of Implementation

The means for the implementation of sustainable development commitments are the financial and technical resources required to achieve specified development results. These consist of finance (domestic, external – official development assistance, foreign direct investment and debt relief, among others), capacity development (including education), regional integration, trade, transfer of environmentally- sound technologies, and South-South Cooperation, among others. At UNCED, countries committed to financing the implementation of A21 from domestic resources augmented by assistance from development partners. This was reiterated by the outcomes of the Fourth High- Level Forum on Aid Effectiveness, held in Busan, South Korea in December 2011. Meanwhile, developed countries have continued to reaffirm their commitment to reaching the United Nations target of 0.7 per cent of GNP for official development assistance.

Finance for sustainable development: Before the global financial crisis, most African governments made substantial progress in raising the ratio of government revenue to GDP, which in SSA increased from an average of 21 per cent to more than 27 per cent between 2001 and 2008. Home remittances from the region's diaspora communities was also a major source of domestic savings, contributing about US$ 40 billion in remittances to families and communities back home every year (IFAD, 2009). ODA rose to US$ 46 billion in 2010. This was a record level, but still fell short of the global commitments made in 2005 (ECA and OECD, 2011). In 2010, foreign direct investment flows declined from US$ 72 billion in 2008 to US$ 58.6 billion in 2009. Inflows to the region's extractive industries increased, however. External capital inflows contributed significantly to domestic investment and government spending in many countries in the region.

7 IISD interlinkages portal- http://www.iisd.ca/sd/interlinkages/interlink2/

Some innovative financing mechanisms that are beneficial to the region were put in place to support sustainable development in developing countries. These included: UNITAID, the International Finance Facility for Immunization (IFFIm) for the GAVI Alliance (Global Alliance for Vaccines and Immunization), Advance Market Commitments, the Voluntary Solidarity Contribution for UNITAID, the Global Fund, Debt2Health, the Carbon Market, and Socially Responsible Investments.[8] Not enough progress has been made on climate finance, however. The Green Fund, which was first included in the Copenhagen Accord, was established at COP-16 in Cancun. COP-17 in Durban committed to making the Fund fully operational in 2012. Furthermore, flows of fast-start finance, to which developed countries committed at COP-15 in Copenhagen, have yet to pick up, and persistent lack of transparency in country allocations and selection of activities remains.

Development effectiveness: Developing countries are increasingly discussing their national development strategies with their parliaments and electorates; development partners are increasingly aligning their aid to national strategies and are working towards streamlining their efforts towards harmonizing practices (OECD, 2008). There has been progress in untying aid, improving the quality of developing countries' public financial management systems, strengthening the quality of technical assistance, and promoting mutual accountability. With the Working Party on Aid Effectiveness due to be phased out in June 2012, one of the outcomes of the Fourth High- Level Forum on Aid Effectiveness, the region will need to explore mechanisms for Africa's representation and participation in monitoring implementation of the outcomes of the Busan Forum in the context of the emerging Global Partnership for Development Effectiveness Cooperation.

The region's governments have shown strong commitment and political leadership in relation to development effectiveness, improved consultation, coordination, and giving African development a common voice. In spite of the promising developments, the integration of official development assistance into country budgets is still poor. Furthermore, there has been limited progress in improving the quality of national development plans, and even in countries that have made progress, linking strategies with budget resources remains a challenge. Development partners need to step up their efforts to coordinate missions and studies. The region and its development partners need to strengthen and effectively implement frameworks to monitor and account for results.

Technology development and transfer: The most significant development in Science, Technology and Innovation (STI) in the region in the last decade is the establishment of the NEPAD Science and Technology Consolidated Plan of Action (CPA), and the AU African Ministerial Council on Science and Technology (AMCOST), which oversees implementation of the CPA. The CPA identifies key priority areas for Africa to work on, and the strategies and policy processes for their implementation. The UN supports NEPAD science and technology through its UN science and technology cluster, consisting of more than ten agencies working through the Regional Coordination Mechanism (RCM) coordinated by UNECA, in close collaboration with AUC and AfDB. Recent focus on science-based sustainable modernization of agriculture and rural transformation through CAADP and AGRA has been very encouraging. Several countries are participating through plans for modernizing agriculture or agriculture-led industrialization strategies. As regards information and communications technology, a number of countries have developed national information and communication infrastructure policies and plans within the framework of the African Information Society Initiative, which establishes the necessary guidelines and institutional mechanisms for promoting an environment that is favourable to competition and investment. As far as the transfer of environmental technologies is concerned, few technology transfer frameworks that benefit the region have been established over the past two decades, those that have, include the clean development mechanism (CDM) - the main market instrument of the Kyoto Protocol that is designed to transfer technology from developed to developing countries.

8 Douste-Blazy. P, Innovative financing for development the i– 8 group Leading Innovative Financing for equity [L.I.F.E.] http://www.un.org/esa/ffd/documents/InnovativeFinForDev.pdf

Science, Technology and Innovations, have an important role to play in the attainment of the region's sustainable development objectives. Yet, these are activities that have received the most inadequate support in the region. Africa's continued low investment in science and technology is also manifested in the declining quality of science and engineering education at all levels of the education system. Institutions of higher learning, particularly universities and technical colleges, are in dire need of renewal after many years of neglect and weak connection to national priorities. However, recent developments at the international and regional levels are providing some new sources of optimism and action.

Capacity development: Capacity is one of the most significant means for the implementation of sustainable development commitments. It provides the ability to set priorities, develop programmes, design appropriate implementation frameworks, and monitor and evaluate the performance of each of the pillars. Countries in the region must develop their skills and institutions, build their infrastructure, upgrade their education systems and provide public services. To this end, a country's or region's capacity development programme must derive from its development agenda. The region's capacity development programme must reflect the requirements for the delivery of the AU-NEPAD sustainable development framework. It must respond to the need for effective leadership, appropriate behavioural change, strong and responsive institutions, effective policies, the existence of an environment conducive to citizen participation in governance and policy processes, and enhancement of the space to innovate and generate new knowledge. The capacity development process requires coordination and should focus on all spheres of governance, from the community to the local, as well as the national, subregional and regional levels, including key institutions and stakeholders. Sector-specific capacity-building strategies need to be strengthened, well targeted and coordinated.

Over the years, the region has made progress through country and subregional level efforts, as well as with the support of development partners, to respond to its capacity constraints and challenges. African governments have signed up to the Education for All (EFA) programme of action. The Second Decade of Education for Africa (2006-2015) has built on gaps identified in the first education plans, moving beyond primary school enrolment (ECA and OECD, 2011). The World Bank, UNECA among numerous UN organizations, AfDB and major multilateral and bilateral organizations have made enormous contributions to the response. The African Economic Research Consortium was created in 1988; the African Capacity- Building Foundation was established in 1991; the Partnership for Capacity-Building in Africa (PACT) was launched in 1999, the IMF launched the Africa Regional Technical Assistance Centres (AFRITACs) in 2002; and the AU-NEPAD in 2010 rolled out the regional framework for capacity development, the Capacity Development Strategic Framework (CDSF), among numerous other initiatives.

A recent survey of 34 African countries showed that 70 per cent had mainstreamed capacity-building in their national development plan, vision or strategy, and 54 per cent had specific national programmes for capacity development (ACBF, 2011). African countries have improved the policy environment for capacity development through the establishment of national development strategies, effective dialogue mechanisms, and growing partnerships. Primary education remains a high national priority, with increasing emphasis being placed on secondary and vocational training. Capacity development is now a cross-cutting element in all aid delivery modalities.

Despite significant progress in capacity development, school enrolment rates and completion rates remain low, especially at post-primary levels, with an average of less than 70 per cent. The quality of education remains a challenge. The number of qualified teachers remains well below the requirement. Despite the fact that many African countries have developed strategic policy documents to guide capacity development, the rate of progress is inadequate to meet education and capacity-building commitments. Technical assistance for education and other areas of capacity development remain fragmented; it is often not aligned with government strategies and does not respond to government priorities. Ensuring the retention of trained staff is still a critical problem for many African countries. Thus, there is an urgent need to ensure that human and institutional capacity development is accorded the necessary priority, as a cross-cutting issue in all development cooperation, but also through targeted interventions aligned with nationally identified sustainable development needs and priorities.

Trade and Market Access: International trade, particularly market access for exportables, is an important factor in economic growth and development. The link between trade and development is highlighted in A21, and further reinforced in the JPOI and the Doha Ministerial Declaration. At the international level, the Doha talks have included discussions on implementation, capacity-building, the environment, Aid for Trade, and special and differential treatment. In 2010, there was some progress on specific issues, for instance, the "banana deal", the cotton trade, the negotiations on non-tariff barriers, and notable engagement of the African Group. However, domestic support and export subsidies (including for cotton) remain high in major OECD economies.

Cooperation agreements and regional trade are critical for sustainable development in Africa. At the regional level, tariffs have on average fallen. Progress is being made on establishing regional free trade areas (FTAs) and customs unions, as reflected in the effort to integrate COMESA, EAC and SADC countries into an FTA. Joint infrastructure projects, such as the Presidential Infrastructure Champion Initiative (PICI),[9] have been initiated as part of this. During the global crisis, intraregional trade proved more resilient than international trade, showing a lower dependency on international commodity markets. Despite this positive sign, the level of trade integration within Africa is still much lower than in other regions.

Several countries in the region and RECs are involved in bilateral trade negotiations in order to diversify their export markets and enhance their integration into global economic and trading systems. Nonetheless, the region remains marginalized in the global market.

Regional integration: Regional integration is a means of achieving sustainable development. This awareness is strong in the region and has been a driving force behind the numerous regional cooperation initiatives. Commitment to regional cooperation and integration is exemplified by the creation in 1963 of the Organization of African Unity (OAU), not long after many African countries had attained political independence. The transformation of the OAU into the AU set in motion actions to deepen progress towards regional integration. Numerous regional institutions have been set up and strengthened. Among these are the AUC, the NEPAD Planning and Coordinating Agency, and the Pan-African Parliament, all of which are facilitating the building of broader consensus on the regional integration agenda. The establishment of other key regional institutions, including the African Investment Bank, the African Monetary Fund, and the African Central Bank, is being accelerated.

The Minimum Integration Programme (MIP) has been developed to streamline and fast-track the integration process. The MIP will, among other things, strengthen convergence of RECs. RECs are already being rationalized. Collectively, the region has entered into a number of external partnerships, guided by a regional approach to external cooperation. These partnerships include the multilateral partnerships in the framework of the WTO, and the African, Caribbean and Pacific Group of States (ACP)–EU Economic partnership agreements.

There has been immense progress in regional integration (AUC, 2011), especially through the various RECs, which are the building blocks for the region's integration process. In spite of the progress made, there remain a number of challenges and constraints in the acceleration of integration in the region. Among these are a multiplicity of RECs and overlapping memberships; fear of losing sovereignty; a volatile political environment, which makes conflict palpable in some countries in the region; lack of a self-financing mechanism; and lack of a compensation mechanism. Others are weak institutional capacity for implementation of the integration agenda at the national level; weak intraregional trade; and inadequate physical integration. The role of regional integration in promoting economic diversification, expanding

9 NEPAD Planning and Coordinating Agency Business Plan, 2012.

markets, pooling and strengthening efficient allocation of resources, and addressing the transboundary and globalization issues and challenges confronting Africa, makes it a crucial vehicle in the realization of Africa's sustainable development aspirations. Deepening and accelerating Africa's regional integration should therefore remain a top priority for African countries and the region's development partners. Regional integration should be mainstreamed at the national level. In this connection, there is need to strengthen political will and support African countries in undertaking and enforcing national reforms, including setting up the necessary institutional frameworks in support of the regional integration agenda.

South-South cooperation: As a means of implementing sustainable development commitments, South-South Cooperation (SSC) has an important role in promoting trade, access to finance and investment, as well as exchange of knowledge, skills and technical expertise. SSC is a commitment to solidarity among the peoples and countries of the South that contributes to their national well-being, national and collective self-reliance and the attainment of internationally- agreed development goals, including the MDGs.

In order to foster SSC, the region has entered into a number of arrangements to strengthen and coordinate SSC efforts between Africa and other countries of the south, such as China, the Republic of South Korea, India and Brazil. The Forum on China–Africa Cooperation (FOCAC) was launched in 2000. In 2009, China announced measures to establish a China–Africa Partnership to address climate change; enhance cooperation with Africa in science and technology; help Africa build up financing capacity; further open up the Chinese market to African products; deepen cooperation in medical and health care; enhance cooperation in human resources development and education; and expand people-to-people and cultural exchanges. The Republic of Korea has established its Initiative for Africa's Development (KIAD). KIAD is supported by the Republic of Korea–Africa Forum. The India–Africa Forum, which is held every three years, has been established. Other cooperation arrangements established are: the India-Brazil-South Africa (IBSA) partnership, and the Turkey-Africa Cooperation Summit. There are also interregional initiatives, such as the Africa and South America (ASA) Partnership, and the New Asian-African Strategic Partnership (NAASP). SSC has also increased within the region. For example, with the rapid move of South African firms into the rest of Africa, there has been greater investment by South Africa in the rest of the continent since the democratization of South Africa in 1994.

Overall, Africa's growing SSC has resulted in a significant increase in the importance of developing countries in the region's merchandise trade. Official flows from developing countries to the region have also increased. According to UNCTAD (2010), estimates are that aid to Africa from developing countries was about US$ 2.8 billion in 2006. While appreciable progress has been made in the strengthening of SSC, the partnership is beset with certain challenges that need to be addressed. These include multiple and fragmented cooperation arrangements, the inadequacy of Africa's SSC strategy, and the poor environmental profile of some SSC initiatives.

With SSC becoming an important source of FDI and ODA, the region must address the associated challenges in order to harness and benefit fully from SCC initiatives. It must develop an effective strategy to guide its engagement in SSC partnerships. The strategy should be responsive to the priorities of the region and therefore be in line with its vision and programmes, such as those contained in NEPAD, which is the region's framework for sustainable development. African countries and their partners in the South need to pay attention to issues surrounding debt sustainability by the recipient countries. The environmental profile of SSC initiatives needs strengthening. Great attention should be given in SSC partnership development to boosting the capacity of recipient countries, the sustainability of initiatives, and the results of SSC. While SSC has grown in importance as a vehicle for assisting countries in the region to implement their sustainable development commitments, it is not a substitute for North-South cooperation, but is rather complementary to it. It is therefore important for the region's traditional donors to continue to scale up efforts in support of Africa-South and triangular cooperation.

V. *Conclusions and Recommendations*

Based on the foregoing, this report expresses the view that the African region has made measurable progress in the implementation of commitments in respect of Agenda 21, the Programme for Further Implementation of Agenda 21, and the Johannesburg Plan of Implementation. With strong and sustained political commitment, well thought out strategies, enhanced awareness, involvement of national, subregional and regional stakeholders, and heightened consciousness of the implementation needs of sustainable development across the region, the results over the two decades would have been more robust. They have nonetheless been appreciable in light of the constraints facing implementation of those commitments.

A. Conclusions

This report reaches the following main conclusions:

i. The region appreciates the concept of, and need for sustainable development, but its understanding requires deepening at the level of subregional entities in order to facilitate effective integration of activities across the three pillars;

ii. Overall, the region has recorded encouraging progress in the implementation of sustainable development commitments, as reflected in the achievement of a number of the MDGs. It will not meet all the MDGs targets by 2015, however, and achievement varies across subregions. Significant challenges remain to be addressed;

iii. Generally, the priority issues and trends in sustainable development were captured by the regional integration and development strategies of the RECs, which included some of the commitments from NEPAD programmes. These strategies were supposed to reflect each country's priorities as expressed in its development plans, but in the event showed disparities between national and regional frameworks. Not surprisingly, priorities differed across the five subregions;

iv. Institutional frameworks for managing sustainable development existed, but were inadequately coordinated, as issues and activities were handled by different entities, especially at the country level. For instance, ministries of trade in some countries issued mining licences without coordinating their activities with ministries of environment, which dealt with environmental impact assessments;

v. Interlinkages among the pillars were understood, but project and programme implementation remained inconsistent with the requirements of balanced development. The result was overexploitation of resources in a bid to address the poverty and hunger challenge;

vi. The green economy concept is yet to be fully understood and is perceived as an externally driven development paradigm. Efforts are needed to deepen understanding of the concept;

vii. Some of the challenges identified at WSSD in 2002, namely HIV/AIDS, ICT and the impact of globalization, persist and need attention. Since then, new challenges have emerged, including the global financial crisis (compounded by the sovereign debt crisis of the advanced economies); food, fertilizer and energy crises; climate change; and persistent human and institutional capacity challenges, as well as inadequate transfer of environmentally- sound technologies; and

viii. The means for implementation of sustainable development commitments were inadequate and this placed a serious constraint on implementation. There were insufficient funds for development projects and programmes; a multiplicity of policy frameworks, which created confusion; institutional weaknesses due to lack of capacity; inadequate political will and decisiveness to implement commitments; duplication of mandates and functions across institutions, which led to rivalries; poor articulation of frameworks for partnering with the private sector in order fully to exploit its potential contribution; and absence of long-term vision, which led to the implementation of unsustainable and incoherent short-term projects largely tied to countries' electoral cycles.

B. Recommendations

In order to take the efforts of the region to the next level, this report recommends the following:

1. Institutional and Policy Framework for Sustainable Development

i. NEPAD should continue to be upheld as a framework for sustainable development in the region and its programmes adequately funded in order to achieve the development results that Africans need. Sustainable development strategies must place emphasis on the social pillar so that the poor and less privileged are adequately targeted through social protection and development programmes;

ii. A systematic programme should be put in place to assist countries in the region in the development and implementation of National Strategies for Sustainable Development. In addition to this programme, UNECA should lead a process of creating a platform for learning and knowledge-sharing among National Councils for Sustainable Development in order to facilitate experience sharing, information exchange and networking;

iii. National and regional development strategies should be driven by sustainable development frameworks in order to enable targets to be set for the achievement of sustainable development objectives. Countries and RECs should not simply integrate sustainable development objectives and policies in their development strategies. Present national sustainable development strategies should be made more comprehensive and capacity development programmes should be aligned with sustainable development needs;

iv. Countries need to step up progress in harmonizing institutions responsible for sustainable development through integrated planning, and to promote coherence in policies. National Councils for Sustainable Development need strengthening; and

v. AU should see to it that all countries in the region develop comprehensive national sustainable development strategies and implementation plans with clear milestones for the achievement of results in each of the pillars of sustainable development.

2. Leadership and Political Commitment

i. Effective political leadership is at the heart of the drive for sustainable development. Renewed commitment by African leaders to sustainable development is needed. The emergence of a new generation of leaders should be encouraged through credible electoral processes that respond to the need for change, reform and new perspectives in the pursuit of sustainable development;

ii. Countries in the region need to step up awareness of sustainable development issues and provide appropriate incentives to encourage participation by all national stakeholders. Leaders in all sectors of the economy and society must take the lead in promoting sustainable development-compliant practices and ensuring commitment by all stakeholders.

3. Governance, Processes and Programmes

i. There is a need to enhance the comprehensiveness of the AU-NEPAD programme. The ten-year review of the implementation of NEPAD provides an excellent opportunity to further strengthen its focus on sustainable development. The implementation of the various components of the programme should be anchored in integrated and interlinkages approaches to growth and development;

ii. The APRM is a good initiative for strengthening governance in the region. All countries should be encouraged to accede to it and undergo the review process. An Africa Sustainable Development Fund (ASDF) might be envisaged to earmark resources to help countries to implement the national plans of action (NPoA) resulting from APRM reviews. Only countries with NPoA should qualify for access to resources from the ASDF; and

iii. The APRM process should now include measures for assessing the extent to which policies and programmes in its national plans of action comply with sustainable development.

4. Human and Institutional Capacity Framework

i. The Africa region needs a new capacity development strategy that will be a clear response to Africa's capacity development needs to achieve of sustainable development. Most current frameworks are inadequate and need revisiting in order to bring them into line with sustainable development needs. Institutional capacity to deliver on the new strategy should be strengthened. The operational capacities of the NEPAD Planning and Coordinating Agency and the APRM Secretariat should be substantially enhanced. In particular, the structure, operations and capacity of the Agency will need to be revisited in order for it to play a robust role as an AU think tank and help to drive the sustainable development agenda at the regional level;

ii. NPCA should be strengthened to enable it to lead implementation, monitoring and evaluation of sustainable development commitments in the NEPAD agenda. It should have a regional capacity development strategy that is aligned with the pillars of sustainable development and should be in a position to offer technical support to the RECs and countries in developing and implementing sustainable development-compliant policies and programmes. To this end, the AU-NEPAD Capacity Development Strategic Framework should be substantially revised to provide a basis for the building of capacity for implementing sustainable development commitments;

iii. UNECA should be strengthened and supported in order to implement effectively its sustainable development-related mandates at the regional and subregional levels in a manner that will benefit Member States and yield tangible sustainable development outcomes;

iv. UNEP Regional Office for Africa needs to be transformed and strengthened into a full-fledged regional institution providing technical guidance for sustainable environmental development in the region. It should be appropriately capacitated and resourced to undertake this responsibility;

v. Educational curricula should be reformed to include the development of knowledge and skills for sustainable development at all levels. Major private sector firms should be encouraged to endow chairs in sustainable development in universities in the region; and

vi. Regional and subregional institutions, including NGOs that promote Africa's sustainable development agenda, need to be strengthened.

5. Financial Resources

i. Africa needs substantial financial and technical resources to meet the requirements of sustainable development. A funding window within present development assistance frameworks could encourage the creation of an Africa Sustainable Development Fund to assist with special interventions. Clear eligibility criteria would need to be in place for access to Fund resources. The Fund would provide stimulus for priority areas, which could include capacity development and reform of institutions and processes; research and development to support innovation and the generation of new knowledge; exploration of policy options and testing the efficacy of environmental taxes; developing mechanisms for technology transfer, adaptation and application; and infrastructure policy reforms;

ii. Country-level sustainable national development trust funds should be created as joint ventures between the government and the private sector to provide resources for joint research and development programmes to be carried out in institutions of higher learning and specialized research centres on various sustainable development issues;

iii. The NEPAD Agency, in collaboration with UNECA, AfDB and AUC, should explore mechanisms for mobilizing domestic resources for the implementation of sustainable development programmes in the region. Part of this effort should include helping countries to identify and develop innovative financing mechanisms to supplement government and development partner funds;

iv. The resources and allocations made to countries for projects by the Global Environmental Facility should be increased substantially. Land degradation that was not catered for in the GEF-4 RAF should be eligible for intervention under the Facility;

v. The Rio+20 Summit must shore up support for adequate financing of the UN Convention to Combat Desertification, as it is the least resourced of all the Rio Conventions;

vi. There is a need for countries to develop payment systems for services provided by ecosystems and to institutionalize community-based resource programmes; and

vii. The current concentration of inflows of foreign investment in only a few countries leaves a number of countries disadvantaged. Conscious efforts are needed to even out such inflows.

6. Partnerships and Shared Responsibilities

i. The APRM provides for corporate, social and environmental responsibility, which the private sector has a significant role in implementing. The countries of the region need price-based instruments and incentives for firms to engage in innovative processes, apply cleaner technologies, and invest in R&D. International trade must respond to the challenge. It is essential to remove barriers to trade in clean technologies and the entry of new firms, and to improve the conditions for entrepreneurship, especially in light of growing evidence that new-generation firms represent a more dynamic source of innovative processes. There is also a need for more effective and inclusive multilateral cooperation in science, technology and the development of new knowledge. A sustainable development strategy has to address such issues and consider challenges relating to cooperation across countries, funding arrangements, capacity-building and international technology transfer. With evidence that there is considerable potential for further development and deployment of renewable energy, energy efficiency and other low-carbon technologies, tapping into this potential will be critical for the energy sector in Africa; and

ii. National, regional and global institutions, as well as development partners, must work together to help African countries to achieve sustainable development goals. Changes in production processes and consumption behaviour are fundamental to sustainable development. They must support a reduction in the use of scarce environmental resources; promote technological innovation that supports increased efficiency; raise awareness; improve knowledge; and step up regional and international cooperation and partnerships. Interventions will require a mix of policy instruments, including market-based approaches, regulations and standards, measures to incentivize R&D, and information-based instruments to facilitate consumer choices. If clear market signals are to be given, correct pricing of pollution and the exploitation of a scarce resource through taxes, natural resource charges or tradable permit systems should be a key element of the policy mix. Market-based instruments alone will not be enough to bring about a shift to sustainable consumption and production patterns, however. Regulations will be needed in cases where market failures result in weak responses to price signals or when a complete ban on certain activities is necessary, for example the production and use of toxic chemicals. Other approaches, such as voluntary instruments and information-based measures, such as energy efficiency ratings and well-designed eco-labelling, can play an important supporting role in raising consumer and producer awareness of the environmental impact of specific activities and the availability of clean alternatives.

7. Integration, Monitoring and Evaluation of Programmes and Performance

i. Countries need support in applying integrated approaches and tools to the management of the pillars of sustainable development. Regular reporting by countries to the Africa-CSD through UNECA should be instituted, and matters relating to NCSDs included in the agenda of Africa-CSD meetings in order to ensure a proper and regular review of the institutional requirements for effective implementation of sustainable development commitments;

ii. UNECA should enhance its work on promoting balanced integration of the three pillars of sustainable development in the region. It should draw the region's attention to the need to give prominence to desertification and drought, which are major challenges to sustainable development;

iii. UNECA should work with other regional institutions on the development and application of monitoring and evaluation frameworks for sustainable development in the region; development of a database to facilitate performance tracking; and the provision to countries of technical support on sustainable development strategy, policy and programmes;

iv. With assistance from African countries and development partners, UNECA should establish a mechanism for systematically and regularly collating, processing and storing data and information on each of the components of sustainable development in the region. The aim should be to provide ready access to the data and information required by policymakers and development managers to monitor progress in the implementation of sustainable development commitments;

v. UNECA should continue to lead consultative meetings and processes to monitor and evaluate progress in the implementation of commitments by the region;

vi. Platforms for all-stakeholder dialogue on sustainable development at all levels – regional, subregional and national – should be encouraged in order to promote a common understanding of what sustainable development means in the African regional context and how best to implement commitments and share the lessons of experience, and in order to determine what works and what does not work and why; and

vii. UNECA should ensure that future progress reports on sustainable development are compiled using a participatory approach, with each country in the region reporting on its performance.

Sustainable development is not simply one option among many for the transformation of national economies and societies. It is a challenge that has to be addressed in order to ensure the long-term well-being of the region. In doing so, the region has to be mindful of the fact that the overarching priorities for Africans are still poverty eradication and wealth creation, and the provision of socio-economic infrastructure and services and food security. The main challenge is that, with a large number of African economies heavily dependent on natural resources and the rural economy home to the majority of the poor who rely on subsistence agriculture, the vulnerability of the environment to economic and social development and unsustainable cultural practices remains very high.

I: Introduction

A. *Background*

This report on Progress towards Sustainable Development in the African region was prepared for the United Nations Conference on Sustainable Development (UNCSD), hereinafter referred to as Rio+20, to be held in Rio de Janeiro, Brazil from 20 to 22 June 2012.[1] It was commissioned by the United Nations Economic Commission for Africa (UNECA) within the context of the Africa Regional Preparatory Process for Rio+20 spearheaded jointly by the African Union Commission (AUC), UNECA and the African Development Bank (AfDB),[2] in partnership with Regional Economic Communities (RECs), the United Nations Environmental Programme (UNEP) and the United Nations Development Programme (UNDP). It attempts to summarize efforts made by the region, starting from the United Nations Conference on Environment and Development (UNCED - The Earth Summit) held in Rio de Janeiro in 1992, through the World Summit on Sustainable Development (WSSD – Rio+10) held in Johannesburg, South Africa, to Rio+20. It thus provides a guide to the extent to which the African region has implemented internationally- agreed commitments on sustainable development, a development path that has become inexorable in view of the imperative to reconcile economic, social and environmental objectives in the region and globally.

By June 2012, the world will have had precisely two decades to develop strategies and institutions, implement policies and programmes, build partnerships and mobilize resources to move from a conventional to a sustainable development path. This transition is no longer an option, but has become a necessity for the long-term survival of humanity.[3] From June 20 to 22, 2012, people from throughout the world will gather in Rio de Janeiro, Brazil for the United Nations Conference on Sustainable Development[4] in order to revisit issues, commitments and progress in the implementation of Agenda 21 (A21), which resulted from the 1992 Earth Summit, held in Rio from 3 to 14 June 1992, and was reinforced by the Programme for further Implementation of Agenda 21 (PFIA21) of 1997 and the World Summit on Sustainable Development of 26 August – 4 September 2002, which gave rise to the Johannesburg Plan of Implementation (JPOI). Mandated by a decision of the United Nations General Assembly in December 2009, Rio+20 will examine issues ranging from the political to the operational. On the political front, it will rekindle and heighten political commitment to sustainable development and renew the call for regions and countries to do more to show results. On the operational front, it will assess the progress made since the 1992 Summit, assess gaps in the implementation of commitments, and address new and emerging challenges. Discussions will centre on two key themes: a green economy in the context of sustainable development and poverty eradication, and the institutional framework for sustainable development.

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1 This report benefited from comments and observations made at the Experts Session of the Africa Regional Preparatory Conference for the United Nations Conference on Sustainable Development (Rio+20) held in Addis Ababa, Ethiopia from 20 to 25 October 2011.

2 For further and more detailed information, this report should be read in tandem with other reports commissioned by UNECA for inputs for the region's preparation for the Rio+20 conference. These include the reports on Institutional and Strategic Frameworks for Sustainable Development; New and Emerging Challenges in Sustainable Development: the Green Economy in the Context of Sustainable Development and Poverty Eradication – What are the Implications for Africa?; Means of Implementation- Bridging the Gap; and the five review reports for Central, Eastern, North, Southern and West Africa.

3 Half a century ago Carson (1962: 5-6) pointed to the environmentally destructive nature of development when she stated that "Man's attitude toward nature is today critically important, simply because of his new-found power to destroy it…we now wage war on other organisms, turning against them all the terrible armaments of modern chemistry, and we assume a right to push whole species to the brink of extinction…".

4 The Rio+20 Summit is a follow-up to the World Summit on Sustainable Development (WSSD) held in Johannesburg, South Africa, from 26 August to 4 September 2002 (Rio+10). WSSD, in turn, was preceded by the United Nations Conference on Environment and Development, which took place from 3 to 14 June 1992 in Rio de Janeiro, Brazil and at which Agenda 21 was adopted. Prior to that, the United Nations Conference on the Human Environment, which took place in Stockholm, Sweden in June 1972, was the first global forum that sought to draw attention to the linkages between the environment and development. The 1992 Summit, also known as the Rio (or Earth) Summit, was a landmark event at which the international community pledged to address environment and development issues in a holistic and integrated manner for the achievement of sustainable development. The Rio+20 Summit scheduled for June 2012 comes precisely two decades after the June 1992 Summit.

The world has come a long way since attention was first drawn to the need to think about the environment and consciously connect the economic, social and environmental components into an integrated development process known as "sustainable development".[5] Step by step over the past forty years, global consciousness and concern for sustainable development have increased enormously in response to the scale of the problems that have arisen worldwide as a result of a development path that does not adequately take into account environmental and social concerns. These concerns gave rise to A21, PFIA21 and JPOI, and defined the context within which countries should pursue economic growth and social development. While there has been progress towards implementing the commitments made in these frameworks, all the evidence points to the need for countries and regions to do more to achieve results.

The Rio+20 Summit is taking place at a time when global and regional development challenges are pushing development strategies to the limits of knowledge and innovation. The world remains highly vulnerable: natural disasters have continued to devastate regions and countries; the global economy is increasingly unstable and has been plagued by varying degrees of financial, food and fuel crises, resulting depressed growth, rising unemployment, huge debts, and insufficient response to the most significant of the Millennium Development Goals (MDGs) – poverty eradication in developing countries. The developed countries face sovereign debt crises, which require economic reforms, while developing countries are still grappling with challenges in achieving MDG targets, especially eradicating poverty, which is being exacerbated in some countries by declining agricultural productivity, surging food prices and the effects of climate change. Achieving targets set for the MDGs is critical for the region's take-off into sustainable development. A return to the table to take stock of progress in the implementation of commitments on sustainable development in the context of poverty challenges is therefore essential, but it must go beyond simply re-enacting political commitment and adding to the rapidly growing volume of normative prescriptions on sustainable development. The need for results is much greater than it was two decades ago. Rio+20 must therefore point to and pave the way for results.

It will be recalled that in 1997 the first five-year review of implementation of A21 showed that little progress had been made. It was clear then that the necessary momentum for accelerated implementation and political commitment was lacking. This led to the organization of WSSD, which represented a ten-year review of the implementation of the outcomes of the 1992 Rio Summit, particularly A21, and was a response to the need to reinvigorate global commitment to sustainable development. While WSSD pointed to some encouraging results during the first decade of implementation of A21, it was obvious that the region needed to do a lot more. The Africa Review Report on Progress towards Sustainable Development seeks to assess the region's performance since 2002, and cumulatively since 1992.

Rio+20 is significant in many respects. It will provide an opportunity to assess performance in the implementation of sustainable development commitments. The significance of Rio+20 also lies in the need for renewed political commitment and, very importantly, to address the issue of resources. It has been estimated that developing countries would need about US$ 600 billion annually, including about US$ 125 billion to be transferred in grants or on concessional terms from the international community, to implement the commitments put forward by A21.[6] With financial and technical resources constituting some of the most constraining means of implementation and only a few African countries having well-articulated national sustainable development strategies, the African region faces a very challenging post-Rio+20 development agenda.

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5 Since Rachel Carson's *Silent Spring* (1962), which became one of the most controversial and influential publications raising environmental awareness at a global scale, through *Only One Earth: the Care and Maintenance of a Small Planet* (1972) by Barbara Ward and René Dubois, which set the tone for the United Nations Conference on the Human Environment, held in Stockholm, Sweden in June 1972, there has been widespread recognition of the interrelationship between the socio-economic and environmental spheres.

6 See iisd, APFED1/02 Ref. 6, January 7 2002.

B. *Purpose and scope of report*

The purpose of this report is to assess the performance of the African region in the implementation of global and regional commitments on sustainable development for the Rio+20 Summit. The specific objectives are to:

a. Provide a well-articulated documentation of progress in the implementation of A21, PFIA21 and JPOI commitments, a clear understanding of the constraints and challenges, and well-informed recommendations aimed at enhancing implementation progress;
b. Clearly articulate Africa's concerns and priorities with regard to the implementation of sustainable development commitments; and
c. Identify the major implementation gaps and the actions needed to bridge them effectively, including through the provision of adequate means of implementation, with a view to advancing Africa's sustainable development agenda.

In terms of scope, the analysis is based on progress made at the regional and subregional levels. Where necessary, country-level performances are dawn on for concrete evidence of progress.

C. *Methodology*

1. Methodological steps

This report was prepared on the basis of a desk review of documentation. It draws heavily on reports prepared by UNECA. As part of the inputs for this report, UNECA commissioned review reports for the five subregions: Central, East, Southern, North and West Africa. These reports assessed the state of implementation of sustainable development commitments at the level of the subregions through regional economic communities (RECs) and countries. The reports were based on reviews of strategy documents, development reports and discussions held with the RECs and key regional and national institutions. The following areas of focus guided the subregional review reports:

a. Trends and issues in sustainable development;
b. Concrete actions taken, progress made and achievements, including best practices recorded;
c. Implementation challenges and constraints;
d. Interlinkages among the pillars of sustainable development - economic, social and environmental sustainability;
e. Institutional framework for sustainable development;
f. Transition towards a green economy in the context of poverty reduction and sustainable development; and
g. New and emerging challenges in sustainable development.

The key issues, findings, conclusions and recommendations of the reports are integrated into this report. The report also takes into account comments made by country delegations at the 20-25 October 2011 Africa Regional Preparatory Conference.

Preparation of the report entailed the following steps:

a. Compilation of a comprehensive documentation and information base, which provided access to documents that included the framework and programmes of A21, PFIA21 and JPOI; subregional reports; national assessment reports; and research reports, among others. Necessary data and information were gathered through consultation with regional and subregional organizations. Documents consulted were drawn from UNECA, AUC, AfDB, NPCA, UNEP, RECs, UN-RCM Africa, Regional Research Institutions and Networks, and Regional Knowledge-Sharing Platforms, among others;

b. An extensive desk review of the documentation and, where necessary, follow-up by telephone and e-mail to seek additional information and clarification;

c. Preparation of an inception note to seek clarification and concurrence on key issues and perspectives. This was followed by a revised note, which served as the inception report on the assignment; and

d. A process of continuous exchange with the task team overseeing the preparation of the report. Continuous feedback made it possible to reach consensus on key issues before finalization of the report.

2. Sustainable development commitments for Africa's performance assessment

The assessment of Africa's performance was based on global commitments and obligations as contained in the following frameworks: Agenda 21, which resulted from the Rio Summit of 3-14 June 1992; Programme for further Implementation of Agenda 21 of 1997; the Johannesburg Plan of Implementation, generated by the World Summit on Sustainable Development, 26 August – 4 September 2002; the Millennium Development Goals of September 2000; the Paris Declaration on Aid Effectiveness of March 2005; and the Accra Agenda for Action, which arose from the Third High- Level Forum on Aid Effectiveness of September 2008.

The assessment had five dimensions: commitments, achievements, financing obligations, support required and received (financial, technical, etc.), and implementation gaps.

3. Key actors and institutions

The report focuses on the following key actors:

a. National-level actors: national governments (responsible ministries and specialized agencies); subnational governments (state and local administrations); the private sector (business community); stakeholder groups – civil society and researchers; academia; and research institutions;

b. Regional and subregional-level actors: the African Union Commission; the United Nations Economic Commission for Africa; the African Development Bank; the NEPAD Planning and Coordinating Agency; Regional Economic Communities (eight AU-recognized RECs); the United Nations Regional Coordination Mechanism, Africa; the United Nations Environmental Programme, Regional Office for Africa; the United Nations Development Programme Regional Bureau for Africa; Regional research institutions and networks; and Regional knowledge-sharing platforms; and

c. Global actors: United Nations Organizations; multilateral organizations; bilateral organizations; South-South cooperation development platforms; and the International Panel on Climate Change.

D. Structure of the report

This report consists of five chapters. The introduction presents the background, purpose, scope, methodology and structure of the report. Chapter II outlines and defines the concept of sustainable development; sets out the pillars of sustainable development and their interlinkages; discusses requirements for sustainable development (including key elements of an institutional framework); and highlights the international commitments and obligations on the basis of which the assessment was made. Chapter III analyses priority sustainable development issues and trends in the African region from the economic, social and environmental perspectives. For each component, the trend and major issues are examined; progress in implementation and achievements are assessed; lessons and recommended priority policy measures and actions are put forward; and conclusions are drawn. Chapter III also discusses interlinkages among the pillars of sustainable development. Chapter IV looks at means of implementing sustainable development commitments; assesses gaps; and presents appropriate recommendations. In Chapter V conclusions are drawn and recommendations made.

II: The Concept of Sustainable Development

A. Definition

Sustainable development is a well-established concept. This report is guided by the definition advanced by the Brundtland Commission: development that *"meets the needs of the present without compromising the ability of future generations to meet their own needs"*.[7] Sustainable development places the challenges facing growth and development within the context of the absorptive or carrying capacity of natural ecosystems and recognizes the limits of such systems. It also places emphasis on intra- and intergenerational equity. In the 1970s, the development concern was economic sustainability, with ecologists pointing to the limits of growth. Since then, concerns have shifted to the steady state economy, which presents a state of equilibrium that allows environmental issues to be addressed. Thus, the concept of sustainable development resulted from a gradual shift in the focus of development theories. In the 1950s and 1960s, development mainly focussed on economic growth and increases in outputs based on efficiency theories. In the 1970s, the growing gap between rich and poor within and between regions resulted in a shift to addressing equity issues with emphasis on social development and income distribution as key elements. Around the same time, the impact of economic growth on the environment brought into focus the importance of integrating environmental concerns in the development agenda. It is in this context that the seminal work of the World Commission on Environment and Development (WCED), known as the Brundtland Commission, can be argued to have contributed significantly to the recognition of the need to integrate economic, social and environmental concerns in the development process.

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7 In 1987, the United Nations released the Brundtland Report, which included what is now one of the most widely recognized definitions: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs". The Brundtland Commission, formally the World Commission on Environment and Development (WCED), known by the name of its Chairperson, former Norwegian Prime Minister, Mrs. Gro Harlem Brundtland, was convened by the United Nations in 1983. The Commission was created to address growing concern "about the accelerating deterioration of the human environment and natural resources and the consequences of that deterioration for economic and social development". In establishing the commission, the UN General Assembly recognized that environmental problems were global in nature, and determined that it was in the common interest of all nations to establish policies for sustainable development.

The 1983 General Assembly passed Resolution 38/161 "Process of preparation of the Environmental Perspective to the Year 2000 and Beyond", establishing the Commission. In A/RES/38/161, the General Assembly gave the Special Commission the following terms of reference:

- To propose long-term environmental strategies for achieving sustainable development to the year 2000 and beyond;
- To recommend ways in which concern for the environment may be translated into greater cooperation among developing countries and between countries at different stages of economic and social development and lead to the achievement of common and mutually supportive objectives which take account of the interrelationships between people, resources, environment and development;
- To consider ways and means by which the international community can deal more effectively with environmental concerns, in the light of the other recommendations in its report;
- To help to define shared perceptions of long-term environmental issues and of the appropriate efforts needed to deal successfully with the problems of protecting and enhancing the environment, a long-term agenda for action during the coming decades, and aspirational goals for the world community, taking into account the relevant resolutions of the session of a special character of the Governing Council in 1982".

The report deals with sustainable development and the policy changes needed to achieve that. The definition of the term in the report contains two key concepts-

- The concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
- The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

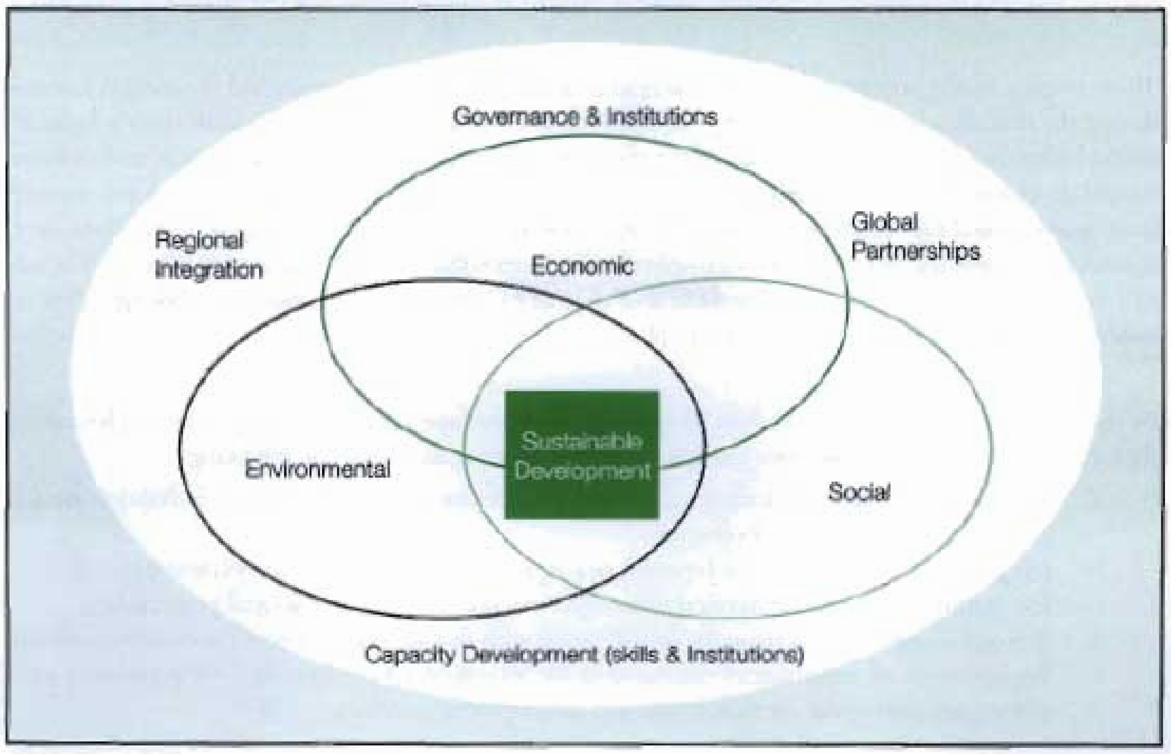
The Johannesburg Plan of Implementation adopted at the World Summit on Sustainable Development in 2002 refers to the "interdependent and mutually reinforcing pillars" of sustainable development as economic development, social development, and environmental protection.

B. *Pillars of sustainable development*

The analysis of the concept of sustainable development is generally based on three component pillars: economic, social and environmental sustainability. There is strong consensus on them in the international community and among development management institutions and development practitioners. While there is general consensus on the three components, this report gives equal emphasis to the role and importance of governance and institutions as a fundamental and overarching factor in sustainable development. The components examined are therefore: governance and institutions, as providing an important basis for economic sustainability, social sustainability, and environmental sustainability. Also of importance in the analysis of progress are interlinkages among the pillars, and the means of implementation of the commitments. The gaps in the means of implementation are a measure of how far the region can truly go in meeting its commitments on sustainable development.

The interacting components are thus: governance and institutions; economic sustainability; social sustainability; environmental sustainability; bridging implementation gap/means of implementation; and interlinkages among pillars of sustainable development.

Fig.1: Interlinkages among the pillars of sustainable development



III: Implementation of Sustainable Development Commitments: Progress and Challenges

A. Implementation of sustainable development commitments, 1992-2002

The 1992 United Nations Conference on Environment and Development (UNCED) provided a political platform and programmes to drive the transition from conventional to sustainable development. Agenda 21 was accepted by more than 178 governments in 1992.[8] The commitments were reinforced by PFIA. There was evidence that there had been progress towards achieving the goals contained in these framework documents, albeit slower than anticipated. It was also generally acknowledged that the integration of environment and development into a common sustainable development framework remained a challenge. Meanwhile, globally, environmental degradation, biodiversity loss and poverty did not improve at the pace envisaged by the various international commitments.[9] This was also true of social development, in view of the recent outbreak of unrest demanding political reforms and improvement in the quality of governance.

Thus progress in the implementation of sustainable development commitments had three main features during the first decade. First, the concept of sustainable development prompted a shift from a focus on single, isolated issues to an appreciation of the complex interactions between a wide range of environmental and developmental factors. This marked a transition to sustainability. Second, there was a movement from international top-down normative guidelines to national institution-building and more local-level approaches. Third, the requirements for implementing sustainable development as contained in A21 and PFIA placed emphasis on the development and sharing of scientific and technical knowledge. This resulted in increased interest in research by public and private institutions globally.

By the end of the first decade, more than 85 countries had developed national strategies for implementing Agenda 21. Some progress had been made in a number of areas, including the following:

a. Development of national strategies, policies, programmes and institutional coordination mechanisms for sustainable development;
b. Integration of sustainable development strategies into national plans and planning cycles;
c. Integration of sustainable development objectives into sectoral policies and programmes;
d. Strengthening of mechanisms for coordination with and among donors at the country level; and
e. Improvement of institutional mechanisms for following up international obligations on integrating environmental considerations into development activities.

In a number of developing countries sustainable development principles had been introduced into national frameworks, such as conservation strategies, environmental plans, national vision statements, and national Agenda 21 initiatives.

There was growing awareness and sensitization of the private sector to sustainable development commitments. Companies, especially multinational corporations, had begun to integrate sustainable development obligations into their operations. A growing number had stepped up research and investment in the development of cleaner technologies. The World Business Council for Sustainable Development had developed a collection of case studies on the transition to sustainability for a wide variety of firms.

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8 Some 85 of the 178 signatories to Agenda 21 have national policies and programmes on sustainable development.
9 Camilo and Sale (July 2011).

1. Global challenges in implementing commitments

By the time WSSD was held in 2002, A21 had had limited success (United Nations, 2002). Challenges in the implementation of the commitments included:

a. *A fragmented approach to sustainable development that de-coupled environment and development.* The concept of sustainable development integrates environment and development in the long term. Between 1997 and 2002, the approaches to sustainable development were still largely fragmented. This was primarily the result of policies and programmes at the national and international levels that were often short-term and inadequately merged environmental and developmental considerations;
b. *Lack of integrated national policies and approaches in the areas of finance, trade, investment, technology, and sustainable development.* To a large extent, short-term considerations were placed above the long-term use of natural resources, and policies were compartmentalized;
c. *Continuing unsustainable patterns of consumption and production.* Unsustainable consumption and production remained rooted in value systems that drove the utilization of natural resources. Such value systems, some of which had deep cultural roots, had proven slow to adapt; and
d. *Inadequate financial resources and technology transfer from developed countries.* Official development assistance fell short of pledges by the international community, and debt burdens constrained the ability of many developing countries to address sustainability issues. Additionally, private sector investment was volatile and concentrated on specific countries and sectors.

At the local level, a number of challenges were identified in the implementation of sustainable development objectives. Of these, financial constraints were most prominent. Other factors included lack of support from national governments; lack of empowerment; difficulties in mobilizing community interest; and insufficient knowledge, technical expertise and information. These challenges reflected an urgent need to build capacity to strengthen decision-making on economic, social and environmental issues. At the end of WSSD, it was obvious that a number of fundamentals needed to be in place for the successful implementation of A21, PFIA and the then emerging JPOI. Two of these were crucial. First, there was an urgent need for more countries to convert international obligations into national policy on sustainable development. Second, the transition from normative standards to operational programmes needed to be associated with the creation of new knowledge (through scientific and technological research and the integration of indigenous knowledge) as part of a larger societal problem-solving process. Thus, there was a much greater need for the application of existing knowledge in innovative ways and for the reorientation of technology to respond to sustainability challenges.

It was thus obvious that capacity for technological innovations needed to be greatly enhanced in developing countries so that they could respond more effectively to the challenges of sustainable development. The orientation of technology development also needed to change in order to pay greater attention to environmental factors. The relationship between environment and development meant that sustainable development required scientific input to decision-making, as well as the application of technologies. Since 1992, science has been central to addressing A21 challenges in such areas as climate change, global warming, ozone depletion, water quality, land integrity and air quality.

2. Africa's performance

By 2002, more than 95 per cent of African countries had ratified the Rio conventions: the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), and the United Nations Convention to Combat Desertification (UNCCD). National policies and laws relating to environment and development had been agreed upon and international environmental treaties had been signed by most African countries. At the national level, a number of countries had made progress in developing national policies and laws that addressed sustainable development issued. Laws had been passed on environmental impact assessment; sustainable use of water, forests, and biodiversity; and management of solid waste. At the local level, a growing number of sustainable development activities were being implemented in some 28 countries in the region.

During the period, African leaders continued to show commitment by discussing challenges in implementing sustainable development initiatives since the 1997 Rio+5 Forum. At the regional level, the transformation of the Organization of African Unity (OAU) into the African Union (AU) in 2001 represented a significant move towards implementing the sustainable development agenda. The AU represents the strongest expression of the region's aspirations and commitment to enhancing economic, political and social integration in development in order to reduce poverty and improve quality of life, promote democracy and good governance, and resolve and manage conflicts.

Progress at the regional level in the implementation of sustainable development strategies was also reflected in the establishment of the New Partnership for Africa's Development (NEPAD). NEPAD, an AU programme that came into being in 2001, is a pledge by African leaders to address the region's multifaceted development challenges for the achievement of the MDGs and sustainable development. It recognizes that poverty eradication and improved living conditions for the majority of the population are essential for sustainable development. NEPAD outlines the responsibility of African leaders to articulate national and regional priorities and to manage development by engaging Africans in leading and owning their own development.

At the subregional level, several regional economic communities (RECs) demonstrated commitment to the implementation of A21 and PFIA 21. A number of key issues were addressed. These included:

a. Regional infrastructure development to promote trade and integration;
b. Land policy reforms to manage diminishing grazing lands and land degradation, and environmental management programmes aimed at protecting and rehabilitating land resources;
c. Formation of working groups to promote sustainable forestry management in response to rapid population growth and increased demand for food and energy resources, which were depleting forest resources; and
d. Adoption of regional approaches to integrate water resources development and management in response to recurrent drought, growing water demand and water pollution. These regional initiatives helped to prevent conflicts over shared water resources and improve access to potable water. Some subregions also made progress in implementing reforms aimed at sustainable management of water resources.

3. Challenges

Most countries in sub-Saharan Africa encountered difficulties in gathering and analysing national and subnational data on major sustainable development issues, such as natural resources inventories, climate change and desertification. Generally, national-level reporting on these issues was unsatisfactory. Other challenges pointed to the need to:

a. Strengthen institutional frameworks in most countries for coordination among ministries and across sectors;
b. Improve coordination among governments, NGOs and the private sector;
c. Develop appropriate legal frameworks;
d. Step up national consultation prior to signing international agreements and develop appropriate human and institutional capacity to translate these agreements into actionable programmes;
e. Address poverty, illiteracy and lack of awareness in the development and implementation of sustainable development programmes;
f. Manage the widening gap between population growth and national output;
g. Effectively mainstream gender and women's empowerment in sustainable development; and

h. Strengthen leaders' vision and commitment to implementing sustainable development strategies, policies and programmes.

Thus, between 1992 and 2002, much of the progress in African countries towards implementation of sustainable development commitments was primarily at the normative rather than the operational level. As the international community concluded WSSD, what was obvious and which served as an input to the present report, was that Africa needed:

a. Enhanced integration of the principles of sustainable development into national policies and development programmes;
b. Significant progress in the formulation of major strategic and operational programmes for sustainable development;
c. Guidelines for a system of sustainable development indicators that could be applied by all countries for comparability of results. These should be included in official national statistics for the purpose of monitoring and performance evaluation;
d. Strong institutional and research support to strengthen integration of the economic, social and environmental sectors of national economies;
e. Reforms in order to include sustainable development issues in educational curricula at all levels;
f. Improved cooperation and coordination among state agencies and all stakeholders, including civil society organizations, in the development of sustainable development policies and strategic plans at national and subnational levels; intersectoral coordination committees and task forces; and strengthened national councils and committees for sustainable development to guide the development and implementation of programmes for A21 and JPOI commitments;
g. An accessible development information network on sustainable development issues;
h. An integrated regional sustainable development framework and action plans across the five subregions, and well-articulated continental, regional, national and local sustainable development agendas to drive and guide efforts on sustainable development;
i. More stakeholder engagement through conferences, seminars, workshops and the media to raise awareness and create space for open discussion of issues;and
j. Intervention in capacity-building to support the sustainable development process.

Table 1: African countries with NSSD/national report and local-level Agenda 21 Programmes[10]

No	Country	Countries with NSSD/National Report	Number of Local Agenda 21 Initiatives
1	Algeria	√	3
2	Benin	√	1
3	Botswana	√	-
4	Burkina Faso	√	-
5	Burundi		2
6	Cameroon	√	1
7	Côte d'Ivoire		-
8	Democratic Republic of the Congo		2
9	Egypt	√	7
10	Gabon		1
11	Gambia, The	√	-
12	Ghana	√	3
13	Guinea Bissau	√	-
14	Kenya		11
15	Libya		2
16	Madagascar	√	5
17	Mali		2
18	Malawi	√	4
19	Mauritania		1
20	Morocco	√	5
21	Namibia		2
22	Mozambique		5
23	Niger	√	-
24	Nigeria	√	5
25	Rwanda		1
26	Sao Tome & Principe	√	-
27	Senegal	√	3
28	South Africa	√	20
29	Sudan		1
30	Swaziland	√	-
31	The United Republic of Tanzania	√	13
32	Togo		2
33	Tunisia		1
34	Uganda	√	5
35	Zambia		4
36	Zimbabwe	√	39

Source: United Nations, 2002

10 As of 2002.

B. *Implementation of sustainable development commitments since 2002*

In reviewing the region's performance since 2002, this report presents an analysis based on the three pillars of sustainable development. It is impossible for all aspects of these pillars to be addressed fully in a single report of this nature, however; hence the need to read this report in tandem with others commissioned by UNECA. In addition to the three pillars, the report also addresses the fundamental and overarching governance and institutions dimension of sustainable development. What follows are some of the key elements, which provide an overview of the progress achieved under each component.

Box 1: AU-NEPAD sustainable development frameworks

- The Comprehensive Africa Agricultural Development Programme (CAADP);
- Africa's Science and Technology Consolidated Plan of Action (CPA);
- Environmental Action Plan (EAP);
- Subregional Environmental Action Plans (SREAPs);
- NEPAD Infrastructure Short-Term Action Plan (STAP);
- NEPAD Spatial Development Programme (SDP);
- NEPAD Programme for Infrastructure Development in Africa (PIDA);
- AU-NEPAD Capacity Development Strategic Framework (CDSF);
- AU Gender Policy Framework;
- Framework for Engendering NEPAD and Regional Economic Communities;
- AU Protocol on the Rights of Women in Africa;
- Policy Framework for Post-Conflict Reconstruction and Development (PCRD);and
- AU-NEPAD Health Strategy.

Source: NPCA, NEPAD: A Continental Thrust – Advancing Africa's Development, 2011

Box 2: AU-NEPAD Action Plan, 2010-2015

The AU-NEPAD African Action Plan, 2010-2015 covers nine sectors that address the region's sustainable development challenges. The sectors are:

- Infrastructure – energy, water and sanitation, transport, and information and communications technology;
- Agriculture and Food Security;
- Human Resource Development – health, education, youth development, and social affairs;
- Science and Technology;
- Trade, Industry, Market Access and Private Sector Development;
- Environment, Climate Change and Tourism;
- Governance, Public Administration, Peace and Security;
- Capacity Development; and
- Gender Development.

Source: NPCA, NEPAD: A Continental Thrust – Advancing Africa's Development, 2011.

remarkable progress in developing its military mechanism and structures for the African Standby Force to deal with the violence and devastating conflicts in the region. The African Standby Force is a continental multidimensional intervention force designed primarily to intervene in conflict situations and assist in the maintenance of peace and security. The force is composed of brigades provided by ECOWAS, SADC, ECCAS, the East Africa Standby Brigade (EASBRIG) and North Africa Regional Capability (NARC). A Special Fund was created in 2004 to support the AU's activities in the arenas of peace and security. The special fund is composed of six per cent of the annual AU budget and other contributions by donors. Under the 9th European Development Fund, the African Peace Facility (APF) has provided €440 million to foster peace and security in Africa, thus providing a steady base of financing for these important programmes. The West African Standby Force of 6,500 soldiers, which could deploy rapidly in response to crisis or threats to peace and security in the region, was established in 2004 (Neethling, 2005). The newly established SADC Standby Brigade was ready in 2010.

In March 2003, the NEPAD Heads of State and Government Implementation Committee (HSGIC), now NEPAD Heads of State and Government Orientation Committee (HSGOC) adopted a memorandum of understanding (MoU) on the African Peer Review Mechanism (APRM). Under the APRM, states undertake to submit to and facilitate periodic peer reviews by a team directed and managed by eminent persons "to ascertain progress being made towards achieving mutually- agreed goals". The report of the team is discussed with the government concerned, which includes establishing whether there is "the will on the part of the Government to take the necessary decisions and measures to put right what is identified to be amiss". Then, "if the necessary political will is not forthcoming" steps are taken to engage in "constructive dialogue". Ultimately, "If dialogue proves unproductive, the participating Heads of State and Government may wish to put the Government on notice of their collective intention to proceed with appropriate measures by a given date". These measures are undertaken as a "last resort". "Six months after the report has been considered by the Heads of State and Government of the participating member countries, it is formally and publicly tabled" at various regional structures, including the African Commission on Human and Peoples' Rights. Thus, the process has three phases, starting with a self-assessment, followed by peer country review missions, and finally implementation of a National Programme of Action (NPoA). The NEPAD Secretariat, which was succeeded by the NEPAD Planning and Coordinating Agency in February 2010, provides a programme of support to countries to implement various dimensions of the NPoA.

The overarching goal of APRM is for all participating countries to accelerate their progress towards adopting and implementing the priorities and programmes of NEPAD through achieving mutually- agreed objectives and compliance with best practices with regard to each APRM area of governance and development, namely, the main pillars of the Declaration on Democracy, Political, Economic and Corporate Governance. A seven-person "panel of eminent persons" oversees the conduct of the APRM process and ensures its integrity.

States that do not sign the MoU are not subject to peer review. The APRM is a voluntary process that AU Member States are not under any obligation to undertake. As at the end of 2011, 31 countries had agreed to do so, in other words, more than half the Member States of the AU, representing three quarters of the region's population. The countries concerned are Algeria, Democratic Republic of the Congo, Ethiopia, Ghana, Kenya, Mozambique, Nigeria, Rwanda, South Africa, Uganda, Burkina Faso, Cameroon, Gabon, Mali, Senegal, Mauritius (2003); Egypt, Benin, Angola, Lesotho, Malawi, Sierra Leone and The United Republic of Tanzania (2004); the Sudan and Zambia (2006); São Tomé and Príncipe, and Djibouti (2007); Mauritania and Togo (2008); Cape Verde (2009); and Liberia and Equatorial Guinea (2011).

The APRM was reviewed at the 11th African Partnership Forum in November 2008. Development partners declared their readiness to continue to support the Mechanism. The post review NPoA Implementation Support Programme has been established by the NEPAD Steering Committee to assist countries to follow- up on commitments made through the APRM process.

The APRM process is designed to promote good governance among African countries by providing a means of responding to governance and development management opportunities and challenges. It focuses on institutional reforms, investment in capacity development in the public and private sectors, the rule of law, a competitive electoral process, a transparent policy environment, the protection of human rights, and guaranteed provision of physical infrastructure and public service delivery to all.

Box 3: The African Peer Review Mechanism

The African Peer Review Mechanism (APRM) came into operation in 2003 as a NEPAD initiative and has been a remarkable success in the promotion of good governance in the region. Though voluntary, some 31 countries have acceded to the Mechanism and 14 have been reviewed and are implementing the resultant national plans of action.

The APRM focuses on four areas:

Democracy and good political governance: The aim is to ensure that countries in the region:

- Have constitutions that reflect the democratic ethos;
- Provide accountable governance;

Promote political representation in a free and fair political environment;

Economic governance and management: Which seeks to promote:

- Transparency in financial management as a prerequisite for sustainable economic growth and poverty eradication.

Corporate governance: Geared towards promoting:

- Ethical principles, values and practices that are in line with broader social and economic goals to benefit all citizens'

Socio-economic development: Which assesses the extent to which:

- Democracy, good governance, peace and security, and the development of human and natural resources contribute to poverty reduction and sustainable social development.

APRM has helped to raise awareness of governance issues in the region, such as corruption, gender inequality and youth unemployment. At the end of the first decade of the APRM, 2013, it is due to integrate a fifth area, which will look at governance with respect to the environment.

Box 4: Countries in the Africa Peer Review Mechanism

Subregion & Countries	Countries Acceded to APRM	Countries Reviewed	Countries with National Structures for APRM Processes
CENTRAL AFRICA			
Cameroon	√		
Gabon	√		
Republic of the Congo	√		
São Tomé & Príncipe	√		
EAST AFRICA			
Djibouti	√		
Ethiopia	√	√	
Kenya	√	√	√
Rwanda	√	√	√
The United Republic of Tanzania	√		
Uganda	√	√	√
Sudan	√		
NORTH AFRICA			
Algeria	√	√	√
Egypt	√		
SOUTHERN AFRICA			
Angola	√		
Lesotho	√	√	√
Malawi	√		
Mauritius	√		
Mozambique	√	√	
South Africa	√	√	
Zambia	√	√	
WEST AFRICA			
Benin	√	√	√
Burkina Faso	√	√	√
Equatorial Guinea	√		
Ghana	√	√	√
Liberia	√		
Mauritania	√		
Mali	√	√	
Nigeria	√	√	√
Senegal	√		
Sierra Leone	√		
Togo	√		

(ii) Challenges and constraints

The implementation of the APRM is constrained by financial, capacity, procedural, operational and political challenges at both the national and regional levels. Conflict is another major constraint.

The conflict situation in the region is changing. As the World Bank (2011) noted, new forms of conflict and violence threaten development even in countries that have successfully reached political and peace agreements after violent political conflicts. Africa now faces a high level of violent crime that is linked to political and other forms of violence. Political movements sometimes obtain financing from criminal activities and gangs. Somalia has proven very difficult and has become a base for pirates. A number of warships have been deployed by international coalitions and individual countries in the Somalia area to ensure free passage for shipping. The coordination of such deployments, their rules of engagement and the legal environment governing the activities to combat piracy remain uncertain.

Maintaining peace and stability remains one of the major challenges to growth and development in Africa. Elections as a means of transition from conflict situations to democratic peace and stability have proven a very delicate process requiring careful handling. The post-election violence and subsequent stand-off in Côte d'Ivoire point to a major challenge in election management in the region. The stand-off occurred in spite of the fact that African leaders and the international community were unanimous in recognizing the victory of the opposition leader at the polls, and despite the fact that the elections were conducted under the Ouagadougou Peace Agreement facilitated by ECOWAS. Indeed, ECOWAS had to request the Security Council to exercise its responsibility in Côte d'Ivoire once diplomatic avenues failed because the incumbent president remained intransigent (UNSC, 2011). In this and similar post-conflict situations, war economies tend to thrive on illicit trade and production, which undermine transparency, accountability and equitable access to and use of public resources.

One of the factors contributing to prolonged low intensity conflicts is the availability and proliferation of small arms and light weapons in the region. These weapons spark, fuel and prolong conflicts, obstruct relief programmes, and undermine peace initiatives. They also generate human rights abuses and foster a culture of violence. Although there has been some effort to address these issues, progress has been very slow as a result of the weak capacity of many states in the region to police their borders and the lack of cooperation by those producing and selling arms, which include private corporations and wealthy countries outside the region. Another important factor that accounts for protracted conflicts in the region is the predominance of economies based on the export of primary commodities. Such economies are conducive to conflict and war (Collier, 2006).

The most recent challenge is the uprisings in North Africa, which began in Tunisia on 17 December 2010 and led to the departure of President Zine El Abidine Ben Ali, who had ruled the country for 28 years. The uprisings, sometimes referred to as the "Arab Spring", quickly spread to Algeria, Egypt and Libya, leading to the resignation of President Hosni Mubarak of Egypt and the death of Col. Muamar Gadhafi of Libya. The protests in Libya, which began in January 2011, were violent and led, under Security Council Resolution 1973, to North Atlantic Treaty Organization (NATO) involvement in the form of air attacks and the suppression of government communications. AU intervention was neither swift nor effective enough to prevent NATO intervention. Managing developments in these countries was a major challenge for the AU, which took time to recognize the opposition National Transitional Council in Libya.

(iii) Lessons learned and way forward

There is a need to deepen understanding of the nature, causes and likely solutions to the many conflicts that continue to occur in the region. The AU needs to find ways and means of ensuring that elections held in post-conflict societies do not lead to renewed instability, as happened in Côte d'Ivoire. It is clear that the question of citizenship, which has arisen in several conflict situations, needs to be addressed at the regional level. This means the AU must provide a framework for dealing with the issue, which is to some extent a colonial legacy.

African governments need to rise to the challenge of resolving the problem of unemployment and poverty in general. They must avoid the political disaster that is bound to result from persistent and intensifying mass poverty and youth unemployment. It has been estimated that conflicts cost the region an average of US$ 18 billion per annum (Muhammed et al., 2002).

In order to meet the MDG of halving the percentage of people living in poverty by 2015, the region must sustain a combined GDP growth rate of seven per cent per annum (effective from 2002). Conflicts and civil strife have impeded GDP growth across the region and continue to do so.

The capacity of the State to play its role effectively in the development process is at the heart of governance. African States have to perform three major development tasks in order to achieve economic transformation: plan the process; formulate appropriate policies; and implement plans and policies. These underscore the need to continue to promote the APRM process in order to entrench learning by working within the region and sharing good practices. The region has to find ways of achieving political leadership that is committed to national development goals and that can motivate and guide the planning and development management process. Competency and professionalism must be promoted in the region's bureaucracies. The autonomy and power to implement programmes and respond swiftly to rapidly changing local and global conditions require bureaucracies with personnel recruited solely on merit, who are well trained and adequately rewarded (UNECA, 2011c).

(b) Sustainable development institutions and strategies

(i) Creating an enabling environment for sustainable development

The AUC has demonstrated a strong commitment to building robust institutional and strategic frameworks to foster sustainable development in Africa. It will be recalled that the JPOI recognizes NEPAD as providing a framework for sustainable development in the region. The Plan also recognizes that achieving sustainable development requires actions at all levels in order to create an enabling environment at the regional, subregional, national and local levels for sustained economic growth and development. In this context, it calls on the international community to support Africa's efforts to foster peace, stability and security, conflict prevention and resolution, democracy, good governance, respect for human rights and fundamental freedoms, including the right to development and gender equality. The highest authority of the NEPAD implementation process is the Assembly of the Heads of State and Government of the AU. However, the Heads of State and Government Implementation Committee [(HSGIC), now Heads of State and Government Orientation Committee (HSGOC)] is an executive body providing leadership and political orientation to the NEPAD Agency (previously NEPAD Secretariat). The HSGOC comprises three states per AU region as mandated by the OAU Summit of July 2001 and ratified by the AU Summit of July 2002. The HSGOC reports to the Assembly annually. The Steering Committee of NEPAD comprises the personal representatives of the NEPAD Heads of State and Government. This Committee oversees project and programme development, while the NEPAD Agency coordinates implementation of projects and programmes approved by the HSGOC.

(ii) Concrete action taken and progress made

Several AUC initiatives to strengthen the institutional framework for sustainable development are being implemented:

a. The African Monitoring of Environment for Sustainable Development (AMESD) programme, whose products are to be integrated into planning and decision-making processes;
b. Capacity-building for natural resources accounting; a framework for undertaking this is under development;
c. Establishment of the Sustainable Development Forum; and
d. The Great Green Wall Sahara Project.

A variety of frameworks have been developed by the various subregional bodies for the promotion of sustainable development. SADC developed a 15-year Regional Indicative Strategic Development Plan

(RISDP) that has been in place since 2005. RISDP is implemented through four directorates, including the Food, Agriculture and Natural Resources Directorate (FANR). ECOWAS Environment Directorate has developed a framework and initiatives on environment adopted by the Heads of State in 2008. These initiatives include the Subregional Action Programme to Combat Desertification (SRAP); the Climate Change Strategic Programme to reduce vulnerability and enhance the adaptation capacities of West African countries to climate change; subregional biosafety regulations; and integration of sustainable development principles into the ECOWAS Community Development Programme (CDP). The Arab Maghreb Union (AMU) gives priority to sustainable development issues, taking into account the social, economic and environmental pillars. Countries in the subregion developed strategies and action plans for the environment, natural resources management and A21. They established an assessment-monitoring mechanism centred on indicators, which has made it possible to produce progress reports on the implementation of international conventions. The mechanism is supported by international institutions and development partners. UNECA partnered with UNEP to monitor implementation of United Nations sustainable development programmes and the building of the capacity of the subregion in order to facilitate achievement of the MDGs and environmental objectives.

The Economic Community of Central African States (ECCAS) has developed specialized institutions, including the Central African Forest Commission (COMIFAC) and the Regional Fisheries Committee for the Gulf of Guinea (COREP), which handle specific aspects of sustainable development. This subregion's development of institutional frameworks is particularly noteworthy.

Box 5: Sustainable development institutions in the Central African subregion

At Central African subregional level a number of institutions have been established to lead the sustainable development process, including the following:

COMIFAC: The Central Africa Forests Commission was set up at the summit of Heads of State held in Yaoundé in 1999. It seeks to establish a knowledge pool for member countries in order to ensure sustainable management of forest ecosystems.

CEFDHAC: The Central African Dense and Humid Forest Ecosystems Conference, formed in May 1996 in Brazzaville (Republic of the Congo), is a platform for consultation and exchange of experiences in the area of forest ecosystems and orientation of all stakeholders operating in the Congo Basin. It gives practical expression to the political will of the States in the subregion to outline a common vision for conservation and sustainable use of the dense and humid forest ecosystems of Central Africa.

OSFAC/GOFC: Formed in 1999, the main mission of the Satellite Observatory for Central African Forests is to ensure remote monitoring of the development of Central Africa's forest canopy.

FOSA: Forestry Outlook Study in Africa conducts forward-looking study of forests in Africa.

SAFROGEN: South Africa Forest Genetic Resources Programme focuses its activities on the state of genetic forest resources.

IUFRO: International Union of Forest Research Organizations.

ADIE/PRGIE: Environment Information Management Association and Regional Environment Information Management Programme.

REDDA: Network for Environment and Sustainable Development in Africa.

CARPE: Central African Regional Programme for the Environment, works to reduce the rate of deforestation and biodiversity loss in the forest zone of the Congo Basin.

ECOFAC: Forest Ecosystems in Central Africa seeks to balance development and protection of the natural environment.

RAPAC: Protected Areas Network of Central Africa.

CBFP: Congo Basin Forest Partnership.

Country-level institutions: At the country level, institutional bodies operating in the economic and social spheres include technical ministries, research institutes and NGOs.

Source: ECCAS, Central Africa Subregional Report on Sustainable Development, January 2012.

The East African Community (EAC) addresses sustainable development issues through several Protocols. These include the Protocol on Environment and Natural Resources Management (ENRM); the Protocol on Sustainable Development of the Lake Victoria Basin (LVB); the Regional Environmental Impact Assessment (EIA) Guidelines for shared ecosystems; EAC Development Strategies; EAC Climate Change Policy; the Rural Development Policy, Strategy and Food Security Action Plan; and the EAC Social Development Policy Framework. The Common Market for Eastern and Southern Africa (COMESA) utilizes a medium-term strategic planning system to promote sustainable development. The 2011-2015 strategic plan aims at an operational common market in six strategic priority areas: removal of barriers to factor mobility; building competitive productive capacity; addressing supply-side constraints related to infrastructure; peace and security; institutional development; and integration of cross-cutting issues, including gender, youth, socio-environmental health, climate change, the knowledge society, statistics, and aid for trade. Agriculture receives special attention. The Inter-Governmental Authority on Development (IGAD) is assisting its member States to achieve regional integration through closer cooperation in the areas of economic cooperation and social development in strengthening the utilization of transboundary natural resources; promoting the use of renewable energy; and promoting rational use of fresh water. Projects are also under way for climate prediction, social protection, food security and disaster preparedness.

At the national level, countries are expected to establish National Councils for Sustainable Development (NCSD). Most African countries have established NCSDs, expressed in various institutional forms. In a study of 37 countries by UNECA (2005), only two (Zambia and Burundi) had not yet established such an entity. Thirty-six per cent of the countries surveyed had multi-stakeholder entities with names mirroring NCSD or closely related. However, it was striking that none had a broad mandate with corresponding broad-based activities that addressed all three pillars of sustainable development. Furthermore, of the 35 NCSDs, 43 per cent were multi-stakeholder environment-related entities or single environment agencies, 46 per cent had environment-related mandates, while 71 per cent executed environment-related activities.

National focal points for sustainable development are gradually shifting from environment ministries/agencies to finance and planning ministries/commissions. This is an important step forward considering that finance and planning ministries/commissions are responsible for coordinating development planning in countries. Representation, collaboration, coordination, integration and participation of major groups are a feature of most NCSDs. Representation of environment and natural resources, planning and finance-related government ministries and agencies has improved. However, representation of social sector-related ministries and agencies is lagging behind and inadequate. A broad base is essential. More needs to be done to involve workers and trades unions, parliamentarians, indigenous peoples, farmers, women and youth groups.

There was a good level of collaboration in the execution of activities, and mechanisms for coordination had to varying degrees been established in the great majority of surveyed countries. Countries used coordination, participatory, consultative and sensitization mechanisms and approaches to integrate the three pillars of sustainable development into their work. Although none of the surveyed countries had a specific strategy for stakeholder participation, this had been institutionalized through incorporation in thematic, national and sectoral policies and strategies as standard practice.

The findings of the NCSD study revealed that countries had adopted different combinations of policies, strategies and plans to address sustainable development issues. Some countries had revised their policies to take into account the principles of sustainability, participation, efficiency, and integrative and harmonized development. The study also revealed that ten countries (Algeria, Cameroon, the Gambia, Ghana, Kenya, Malawi, Mauritius, Tunisia, Uganda and Zambia) were in the process of implementing their National Strategies for Sustainable Development (NSSDs).

Of the remaining countries, the NSSD of one had been approved but was yet to be implemented (Senegal), the NSSDs of Benin and Mozambique had been developed and were awaiting approval, while those of Morocco and South Africa were under development. Only Sierra Leone indicated that no action had been taken towards developing an NSSD.

The NSSD types being implemented were quite diverse. Two highlighted the environmental dimension (Algeria and Tunisia), two others focussed on the economic dimension (Kenya and Mauritius) and three were poverty reduction strategies (Cameroon, Ghana and Uganda). The remaining three were a national development plan (Zambia), a national long-term vision document (the Gambia) and an NSSD (Malawi). Among the NSSDs that were yet to be implemented, one emphasized the environmental dimension (Mozambique) and two were NSSDs (Benin and Senegal). Priorities addressed by the different NSSDs varied in comprehensiveness, but most covered the four dimensions of sustainable development. The manner and levels of integration and participation also varied.

(iii) Challenges and constraints

While there was a strong need to achieve sustainable development, there was no common understanding of the concept across all the subregions. There was a clear understanding of the linkages among the three pillars of sustainable development, but putting this into practice was a challenge, as no subregional entity, such as RECs and countries, had a comprehensive framework for sustainable development, and coordination of policies and programmes posed a major challenge. Sustainable development was pursued within the context of existing development policy and programme frameworks and RECs, like countries, placed emphasis on issues considered key priorities in their medium-term plans.

At the subregional level, RECs and countries were guided by medium- to long-term visions and programmes. All countries, albeit to varying degrees, made progress in establishing institutional frameworks for sustainable development, but they fell short of the requirements for well-functioning NCSDs, as confirmed earlier by the UNECA study. Strategies were reflected in a poverty reduction strategy (PRS) (3-5 years) in West Africa, which did not allow for the long-term vision required for effective sustainable development. Nevertheless, the PRS covered most of the priorities for sustainable development. This also applied to most East and Southern African countries. The United Republic of Tanzania National Strategy for Growth and Poverty Reduction (Mkakati wa Kukuza uchumi na Kupunguza Umaskini – MKUKUTA); the Ethiopian Plan for Accelerated and Sustained Development to End Poverty (PASDEP); the Uganda National Development Plan; and Rwanda's Economic Development and Poverty Reduction Strategy (EDPRS), were all national strategies for poverty reduction and sustainable development, but included long-term visions, goals and strategies that embraced and addressed long-term environmental and sustainable development objectives. MDG-based planning has ensured the success of The United Republic of Tanzania's MKUKUTA and Ethiopia's PASDEP, which are national strategies for poverty reduction and sustainable development. Thus, in the absence of comprehensive programme frameworks for sustainable development, MDG-based national plans and strategies became the means of addressing the challenges of sustainable development.

Thus, although appropriate institutional frameworks are beginning to emerge in the region, with focal points of sustainable development moving to finance and planning ministries, coordination and integration mechanisms that address the three pillars of sustainable development in a balanced manner have yet to be put in place. It is in this connection that participants at the African Regional Preparatory Conference for Rio+20 in October 2011 renewed the call for the strengthening of NCSDs, as the benefits of Rio+20 agreements would depend on how they were implemented and coordinated at the national, subregional and regional levels.

The region still suffers from inadequate capacities in terms of human, institutional and financial resources. These have stalled progress and, in some cases, eroded gains made, especially in countries where there has been a resurgence of civil war and political unrest. Conflicting or overlapping mandates/legislation, resulting in institutional rivalries and parallel processes are major factors threatening the successful implementation of sustainable development agendas. The region is also constrained by an unsustainable debt burden, population pressure and social inequalities.

In a number of countries there is slow integration of environmental concerns in development plans and none has been able to integrate the three pillars of sustainable development. This lack of integration gives rise to parallel coordination structures with clearly defined, but not necessarily convergent, strategic objectives. Governments in the region lack adequate capacity to integrate the principles of environmental economics, including environmental valuation, natural resources accounting and application of economic instruments, in development planning processes.

Funding is clearly a constraining factor in the effective functioning of NCSDs, and the implementation of the sustainable development agenda in the region. The location of the NCSD under a high level office (Office of the President / Prime Minister) did not automatically guarantee adequate funding. Many development partners support sustainable development-related activities. Most countries have not established financing mechanisms to generate additional funds, however.

(iv) Lessons learned and way forward

Given the shortcomings of the institutional frameworks for sustainable development, countries should be assisted in establishing or strengthening (as appropriate) NCSDs that are responsive to the requirements of sustainable development. The name, mandate, location and organizational structures of newly established NCSDs should allow for horizontal and vertical linkages, and ensure that the three pillars of sustainable development are appropriately addressed. In restructuring and strengthening existing NCSDs, care must be taken to ensure that structures and achievements are built upon, and continuity assured.

The composition of NCSDs should be broad-based and take into account the country's sustainable development priorities and specificities. Trades unions, indigenous peoples, parliamentarians, farmers, women and youth groups should be better represented in NCSDs, and private sector representatives should be empowered to be more actively engaged in activities. Countries are gradually developing policies, strategies and plans for sustainable development, but the multiplicity of policies, strategies and plans should be carefully considered and rationalized in order to avoid duplication of effort and to save on scarce resources. If existing strategies are found wanting, they should be strengthened, taking into account sustainable development principles, country needs, priorities, specificities and lessons learned, rather than initiating completely new processes.

The design of policies and strategies should include investment plans that adequately address resource requirements. Countries should also be assisted to identify and establish/strengthen innovative financing mechanisms to supplement government and donor funds. The scarcity of financial resources also calls for well-targeted spending and prudent management of resources. This should include prioritization of activities and joint implementation.

Monitoring and evaluation systems should also be built into strategies as they promote accountability and continuous learning and improvement. In this regard, countries should, among other things, receive assistance to develop appropriate sustainable development indicators, and to adopt or enhance the use and application of approaches and tools, including policy analysis models, integrated assessments, and environmental/natural resource accounting, with a view to achieving a balanced integration of the three pillars of sustainable development.

Furthermore, an important finding of the UNECA study was that the location of the NCSDs within a particular government administrative structure, that is whether under the Office of the President/Prime Minister or located in ministries, was not central to ensuring continuity and effective collaboration with other sectoral ministries. Although inter-ministerial rivalries may present a major threat to their effective functioning and collaboration, what is important is the actual policy influence of the body.

(c) Need for broad-based participation by major stakeholders

Sustainable development requires all stakeholders at all levels to play a role. Participation engenders collective ownership of a process and promotes a strong sense of commitment to the delivery of results. This is particularly essential for sustainable social development. Stakeholders consisting of government, the private sector, local communities, civil society, youth and youth organizations, women's organizations and empowerment groups, academia and research institutions, among others, should all be involved. At the regional level, broad-based participation by stakeholders is encouraged, but this has largely been at the level of policy institutions. Local communities, professional networks and civil society organizations are examples of stakeholders with very limited participation thus far. Youth and youth organizations do not yet have proper channels through which to express their needs and aspirations. Over the last decade, the declining level of youth engagement in all pillars of sustainable development has been a matter of concern for decision makers globally. As a result, the need to promote youth participation is an increasingly major challenge to governments and international organizations. The reasons for the low level of youth involvement are partly traceable to a lack of interest on the part of young people, but mainly to lack of opportunity. As a result, efforts are being made for governments and institutions to be more youth-oriented in their policies and programmes, less bureaucratic and to "speak the language of youth".

(i) Concrete action taken

Over the years, a number of consultative platforms and networks have emerged to facilitate stakeholder participation in shaping policies and determining programmes in sustainable development. These range from regular regional and subregional ministerial meetings to civil society networks. Efforts have also been made to promote the growth of youth forums and consultative committees. The 17th AU Summit took the consultative platform to the highest level, following the debate between AU Heads of State and Government and youth on the issue of youth unemployment and participation in the development process. In addition to their role as the next generation of leaders, young people have the potential to play the role of bridge and peacebuilders in post-conflict situations.

The region has responded to the challenges posed to sustainable development by committing to and establishing policies for creating an enabling environment at the regional, subregional, national and community or local levels that support sustainable economic growth, social development and environmental integrity; efforts for peace, stability and security; democracy and good governance, respect for human rights and fundamental freedoms, including the right to development and gender equality. Although much remains to be done to make these interventions bear the desired fruits, the region (both governments and people) are committed to and share the Brundtland Commission's vision for a future that is more prosperous, more just and more secure.

NGOs are playing a visible and effective role in promoting the sustainable development agenda. Their involvement in virtually all issues on the agenda has helped enormously to raise awareness, promote participation of stakeholders – including communities, youth and women – and mobilize financial and technical resources to implement projects and programmes towards the achievement of the MDGs. With the rapid advances in information and communications technologies, regional, subregional, national and community-level networks have been created to give voice to issues and create bonds among like-minded people across ethnic, religious, racial, cultural and social boundaries. In recent years, development and environmental NGOs have also learned that they can be more effective, and their work more positive, if they work with communities and various stakeholder networks and help them to empower themselves. Working at the grassroots level helps to provide assistance directly at the source. Given the growing effectiveness of NGOs, their complementary role in sustainable development makes them important development partners of governments. Participation has given civil society organizations (CSOs) the opportunity to engage with CSOs from other countries and regions, as well as with governments other than their own.

Thus over the past two decades, the role of civil society in sustainable development has changed significantly. Today, governments in the region recognize that civil society must be consulted on development initiatives. Civil society organizations have played an important role in the development of AU protocols on critical environment and development issues, including biosafety, genetic resources and the rights of women. They have also become more critical development partners, raising concerns and drawing attention to some of the potential difficulties associated with new state initiatives. They are increasingly demanding to be more actively involved in policymaking processes, including those at the national, subregional and regional levels. Civil society has successfully emerged as a third sector in a tripartite relationship with the state and business. This is the arena in which citizens collectively exercise social and political values to promote various aspects of community well-being. Civil society organizations include religious, traditional, farmers', women's, academic and professional, civic, microfinancing, as well as professional associations, trades unions, employers' associations, grassroots organizations, social movements and consumers' associations.

The number of CSOs in the region involved in sustainable development issues has grown considerably since the early 1980s. Such organizations vary in scope and scale. New kinds of CSOs have begun to emerge. Of particular importance has been the development of networks bringing together different types of CSOs for a common purpose, sometimes in partnership with business, governments and multilateral organizations. Some of these have been local or national in focus, addressing for example HIV/AIDS, land claims, and participation in PRS. Others have taken regional or subregional approaches, focusing on a growing range of issues that require cooperation, including water resource management, malaria, chemical management, peacebuilding and food security. Furthermore, in recent years, an increasing number of international organizations and bilateral donors have followed the lead of their NGO counterparts in acknowledging the importance of helping to strengthen governance and institutions in the region.

It is critical that all stakeholders are involved in policy, programme design, implementation and evaluation. Development stakeholders often have a clear understanding of their own situation and needs and what response they require. While consultative processes can involve high costs, their benefits are significantly greater, as they contribute to violence prevention, reduction of exclusion and resultant conflicts, and promote creative means for scaling up transparency and accountability in governance.

(ii) Challenges and constraints

The region still has an inadequate policy framework for stakeholder engagement. It is limited largely to forums of policymakers and key professionals. Policies on youth only superficially consider the dimensions of violent conflict, and the conflict prevention agenda has relatively little to say about youth, while the sustainable development agenda suffers somewhat from a limited focus on employment. A better informed framework is urgently needed.

(iii) Lesson learned and way forward

The involvement of major stakeholders in the sustainable development process must be holistic and cross-cutting. The magnitude of the problem demands substantial investment in consultative processes involving all stakeholders. It requires a shift in orientation from mere consultation to placing all in their diversity at the centre of the policy development process, advocacy, programmes and so forth, by creating space for participation and engagement. It means acknowledging that stakeholders are diverse and multifaceted. It also requires a stronger, more nuanced understanding of the context of societies in development, and a deeper and more comprehensive understanding of the intersections between the various categories of stakeholders and sustainable development.

While young people constitute a majority of the population in some countries, their majority status is not reflected in the distribution of recognition, access to education/employment or their economic/political position in relation to other groups in society. For example, although young people constitute a majority of voting-age citizens in the region, very few elected officials belong to the youth category. Youth wings of political parties are used merely as tools to amass political power. Moreover, cultural norms that value the leadership of elders in the community and in politics might create a generational conflict between a youth majority and older generations. The mass disenfranchisement of youth is one of the key stumbling blocks in the development process, the transition from war to peace and the prevention of violent conflict. Young people have not been recognized as legitimate agents of change, nor have they been empowered or capacitated to fulfil this responsibility in the sustainable development chain.

A critical indicator of success in stakeholder participation is active engagement in the full range of sustainable development and governance processes. In order to ensure this, it is necessary to strengthen existing platforms and mechanisms and establish more democratic decision-making institutions at all levels of decision-making through which all categories of stakeholders can actively participate in development and governance. These institutions should be empowered to promote stakeholder ownership of sustainable development programmes, enhanced citizen oversight over government activities for ensuring transparency, and information sharing as a means of enhancing the effectiveness and efficiency of strategy, policy and programme formulation and implementation (UNECA, 2011).

Given the progress so far made in the region's governance and institutional environment, this report asserts that:

a. The dark years of personalized power, prevalence of unaccountable and authoritarian governments, violation of human rights, rampant corruption, absence of the rule of law, massive state intervention in the economy and lack of decentralization of responsibilities and resources are receding in the region. Africa is now making strides in the building of democratic institutions and will continue to pursue efforts at good governance within the context of the activities of the AU, the APRM and interventions by the RECs, which have been instrumental in addressing issues of conflict and peace management. The APRM has completed a number of country reviews that have provided important insights into governance and institutional issues, as well as invaluable lessons;
b. The region is conscious of other factors that might contribute to the refinement of the good governance agenda. Neo-patrimonial political practices, which are in conflict with the norms of accountability, transparency and formal institutional rule, are one. There is a need to assess how neo-patrimonial power is exercised, how it affects the operations of the state, and how it integrates formal and informal political processes and determines the nature of the social compact between rulers and ruled;
c. Elections have become the means for political change in the region. Nonetheless, there is still enormous room for improvement in the quality of elections and electoral processes. The region continues to learn lessons from contested elections and the struggle for constitutional reform (Kenya, Côte d'Ivoire), and, on balance, has made satisfactory progress in the entrenchment of democratic processes and institutions and will continue to promote a culture of respect for the rules and election results;
d. Constitutions in the region remain veritable social contracts, which provide the basis for good political governance. They will continue to be upheld;
e. African countries are encouraging younger generations to participate actively in political processes in order for the voice of youth to be given stronger expression in governance;
f. The region is mindful of the fact that there is still a strong perception that economic incentives underlie politics and tend to subvert democratic and developmental outcomes. Elements of patronage and clientelism continue to exist. There is nonetheless an abundance of good demo-

cratic practices that hold invaluable lessons for democratic order and effective management of resources for sustained improvement in the quality of lives; and

g. Corruption still exists and is a reflection of the weakness of public accountability mechanisms and suppressed transparency systems. There are, however, strategies and measures that are working. The demand for public accountability by civil society and other stakeholders is becoming stronger in order to reach collective and nationally-owned mechanisms for translating ideas into public policy reforms and change. There is a strong conviction that a viable, strong and well-informed civil society is central to good governance and therefore an effective institutional partner in the development process.

Thus there is compelling evidence of sustained progress in the pursuit of good governance in the region, which is vital for sustainable development. The governance climate is conducive to sustainable development and the region is poised to address continuing challenges and constraints in its governance environment. Some of these require concerted efforts, but the region will continue to resist attempts by the international community to dictate governance issues and make these preconditions for development cooperation and assistance.

2. Sustainable economic development

The economic sustainability pillar examines progress with respect to economic growth performances since 2002.

(a) Africa's Economic Growth Performance

In order to move from conventional to sustainable development, a country needs to be on the path of broad-based and quality economic growth. Growth is a prerequisite as, in developing countries, it creates wealth from which to meet sustainable development commitments and the targets set for the Millennium Development Goals. Poverty levels and inequalities in income must fall progressively, while socio-economic infrastructure, which encourages and supports investment, and efficient social services, must be available to create the conditions for sustainable development. Without these fundamental conditions it will be difficult for poor countries to make the transition from conventional to sustainable development.

The 21st century has seen a new dawn and significant milestones in Africa's development. Although the enormity of the continent's development challenges is clear, enormous opportunities are now within reach and new orientations in the continent's economic and development efforts have emerged in response to environmental and climate concerns. Progress is breaking down development barriers, bringing Africans closer together and creating more space in which national and regional development stakeholders and partners can think and act collectively as a community seeking effective, efficient and sustainable solutions to national, regional and global issues. Achieving sustainable development results is a challenge facing Africa in the 21st century and one to which it must respond decisively. So far, the results have been encouraging. There is strong evidence of progress in African political, economic, administrative, corporate and social governance: the indicators are encouraging, visible and measurable. In order to consolidate achievements, there now needs to be a shift in Africa's development orientation in order to transform opportunities into results, taking the environment and climate change into consideration. Africa now needs to confront its development challenges with a sustainable development strategy guided by sustainable use of resources based on high quality skills, knowledge and institutions. Fundamentally, how Africa responds to the challenges facing the environment and climate will determine the extent to which it is able to address sustainable growth, human development and poverty eradication.

(b) Present growth statistics

Present statistics place no fewer than six African countries among the world's ten fastest growing economies in the decade 2001-2011 (Angola, 11.1 per cent; Nigeria, 8.9 per cent; Ethiopia, 8.4 per cent; Chad, 7.9 per cent; Mozambique, 7.9 per cent; and Rwanda, 7.6 per cent). Forecasts by the IMF indicate that seven African countries are likely to be among the top ten over the next half decade, 2011-2015 (Ethiopia, 8.1 per cent; Mozambique, 7.7 per cent; The United Republic of Tanzania, 7.2 per cent; Congo, 7.0 per cent; Ghana, 7.0 per cent; Zambia, 6.9 per cent; and Nigeria, 6.8 per cent). Over the past decade the unweighted average growth rate was about the same for Africa and Asia. Given the current prospects, there is a strong likelihood that Africa will surpass Asia in growth in the next decade.

Present statistics also demonstrate that Africa's economies have recovered from the slump that resulted from the recent global recession,[11] and that growth prospects are therefore very promising.[12] The recovery of African economies has been driven largely by prudent economic policies prior to the crisis, sustained development assistance, earlier debt relief, and financial resources advanced by the IMF and AfDB. Other measures have included the adoption of new and expanded social protection programmes; better policy coordination; and the incorporation of the MDGs and performance indicators at the heart of African countries' development strategies. Despite the promising developments, a number of countries in the region still face structural obstacles to growth that need to be addressed.

In 2010, Africa's average rate of growth amounted to 4.9 per cent, up from 3.1 per cent in 2009. The political developments in North Africa are likely to depress the continent's growth to 3.7 per cent in 2011, with the possibility of accelerating to 5.8 per cent in 2012. Despite the rebound in growth, generally the region still faces the challenge of meeting the MDGs.

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11 An uneven recovery across the continent- Southern Africa, which was hardest hit in 2009, is recovering more slowly than other subregions, with an average growth of almost four per cent in 2010/2011. East Africa, which best weathered the global crisis, is projected to again achieve the highest growth, with more than six per cent on average in 2010/2011. North and West Africa are expected to begin to grow at around five per cent and Central Africa at four per cent during the same period.

12 The recent global financial and economic crisis brought to a halt a period of relatively high economic growth in Africa. Though recovering strongly, African economies have suffered and this could make it more difficult for some countries to meet the Millennium Development Goal of halving the number of people living in poverty by 2015. This is due to the fact that, while overall there is resilience in weathering the crisis, recovery has been uneven across the region. In addition, an uneven recovery is expected across sectors. In 2009, the volume of African exports declined by 2.5 per cent and import volumes by about 8 per cent. Sectors such as mining and manufacturing were particularly exposed to the fall in commodity prices and global trade in goods and services (AEO, 2010).

Box 6: Regional economic growth performance

Over the past 20 years, the subregions and their constituent countries achieved annual real growth in gross domestic product (GDP), but performance varied widely across subregions and countries. For instance, countries such as Ethiopia, Rwanda, The United Republic of Tanzania and Uganda, with average annual GDP growth rates of over 9.6 per cent in 2008, showed that results were being achieved in the region. Countries in the East Africa subregion were the fastest growing economies in Africa and the developing world, while economic growth in North Africa was robust, with growth ranging between four and six per cent. The Central African subregion overall achieved modest annual real growth in GDP. In none of these subregions did growth lead to job creation, however. Youth and graduate unemployment remain a major challenge. Poverty levels also remained high: among the highest, measured by the proportion of the population living on US$ 1.25 per day in 2011 (based on the most recent data available over the period, 2000-2009),* were Liberia, 83.7 per cent; Burundi, 81.3 per cent; Rwanda, 76.8 per cent; Malawi, 73.9 per cent; the United Republic of The United Republic of Tanzania, 67.9 per cent; and Madagascar, 67.8 per cent. Others in the 60 per cent range included Nigeria and Zambia, 64 per cent; Central African Republic and Swaziland, 63 per cent; and Chad, Democratic Republic of the Congo and Mozambique, around 60 per cent.**

The UNDP Human Development Index (HDI) and Human Poverty Index (HPI) also showed that there was extreme poverty in a number of countries. For instance, owing to the fragility of their economies, Central African countries did not substantially improve the living standards of their populations between 1992 and 2011. About 50 per cent of the population lives below the poverty line. Youth under 15 years account for nearly 50 per cent of the subregion's 110 million people; life expectancy ranges between 40 and 63 years; the gross school enrolment rate is below 50 per cent; and the infant mortality rate is above 100 out of 1000 in at least six countries (IUCN, 2010). UNDP Human Development Reports rank the countries in the subregion among the last in the region. Central Africa has been the most politically volatile and economically challenged subregion as a result of internal conflicts, wars, economic crises and the effects of the 1994 devaluation of the CFA franc, which contributed to a reduction in the momentum towards the sustainable development objectives advanced in Agenda 21 and JPOI. The extent of infrastructural deficiency in the subregion is enormous. For instance, in the transport sector, less than 10 per cent of roads in Central Africa are tarred. In North Africa, Libya presented a classic case of rising unemployment; there was a sharp contrast between a GDP of nearly US$ 60 billion, an annual growth rate of more than seven per cent, per capita GDP exceeding US$ 14,000, an unemployment rate of more than 15 per cent, and an agricultural sector which accounted for only 2.1 per cent of GDP.

In other sectors of the economic pillar, the subregions and countries made some good progress. Regulatory reforms and investment programmes in the energy, transport, water and ICT sectors produced tangible results, which made a difference to the well-being of the people. For instance, in addition to the extensive ICT penetration in all the subregions, road links between Uganda and The United Republic of Tanzania through Bukoba and Mutukula, and Kenya and Ethiopia through Garissa and Moyale, were developed, thus facilitating movement of goods and services between these countries. Free movement of people was still constrained by a slow integration process, however.

Thus, on the whole, while there has been progress, the subregions will not achieve all the MDGs by 2015. Food insecurity threatens achievement of MDG 1 due to poor farming techniques and loss of harvest to pests, diseases and post-harvest waste, drought, floods and political instability, susceptibility of rain-fed agriculture to climate change, increased use of grains for livestock feed and biofuels, leasing of large pieces of land to investors for production of food and biofuels for export, among other factors. Success in the agricultural sector therefore remained a major challenge for the Comprehensive Africa Agricultural Development Programme (CAADP).

* See UN Human Development Report 2011.

** The Democratic Republic of the Congo (DRC) had a rate of 59.2 per cent.

Table 2: Africa: Real gross domestic product growth rates, 2002-12

	2002	2003	2004	2005	2006	2007	2008	2009	2010 (e)	2011 (p)	2012 (p)
Algeria	4,7	6,9	5,2	5,1	2,0	3,0	2,4	2,4	3,5	3,9	3,6
Angola	14,5	3,3	11,2	20,6	18,6	22,6	13,8	2,4	3,4	7,5	11,1
Benin	4,4	3,9	3,1	2,9	3,8	4,6	5,0	2,7	2,1	2,5	3,7
Botswana	8,8	6,3	6,0	1,6	5,1	4,8	3,1	-3,7	6,4	6,9	7,0
Burkina Faso	4,7	8,0	4,6	8,7	5,5	3,6	5,2	3,2	5,7	6,5	6,2
Burundi	4,5	-1,2	4,8	0,9	5,2	3,5	4,5	3,4	3,9	4,5	5,2
Cameroon	4,0	4,0	3,7	2,3	3,2	3,3	2,9	2,0	3,0	3,8	5,3
Cape Verde	5,3	4,7	4,3	6,5	10,8	8,6	6,2	3,6	5,3	5,6	6,1
Central Afr. Rep.	0,4	-4,7	2,8	2,0	3,8	3,7	2,0	1,7	3,4	4,3	4,5
Chad	8,6	13,2	34,3	7,5	1,4	4,0	-0,6	1,7	5,9	5,7	6,9
Comoros	2,3	2,1	1,9	2,8	2,6	0,8	0,6	1,1	2,1	2,5	3,2
Congo	4,6	0,8	3,7	7,6	6,2	-1,6	6,4	6,8	10,2	8,4	3,1
Congo Dem. Rep.	3,5	5,8	6,6	7,9	5,6	6,3	6,2	2,8	6,1	6,7	6,4
Côte d'Ivoire	-1,6	-1,7	1,6	1,8	0,7	1,6	2,3	3,7	2,0	-7,3	5,9
Djibouti	2,6	3,2	3,0	3,2	4,8	5,1	5,8	5,0	4,4	4,6	5,1
Egypt	3,2	3,2	4,1	4,5	6,8	7,1	7,2	4,7	5,1	1,6	4,0
Equatorial Guinea	20,4	14,4	32,7	8,8	1,3	21,4	10,7	5,3	1,2	5,0	7,5
Eritrea	3,0	-2,7	1,5	2,6	-1,0	1,4	-9,8	3,9	2,2	7,9	6,1
Ethiopia	1,6	-2,1	11,7	12,6	11,5	11,8	11,2	9,9	8,8	10,0	8,6
Gabon	-0,3	2,5	1,4	3,0	1,2	5,6	2,3	-1,4	5,5	4,2	4,9
Gambia	-3,2	6,9	7,0	5,1	6,5	6,0	6,3	6,7	5,4	5,6	5,6
Ghana	4,5	5,2	5,6	5,9	6,4	6,5	8,4	4,7	5,9	12,0	11,0
Guinea	5,2	1,2	2,3	3,0	2,5	1,8	4,9	-0,3	1,6	4,6	5,5
Guinea-Bissau	-4,2	-0,6	2,2	3,5	0,6	2,7	3,2	3,0	3,6	4,5	4,8
Kenya	0,5	2,9	5,1	5,9	6,3	7,1	1,7	2,6	5,0	5,3	5,5
Lesotho	0,4	4,8	2,2	1,4	6,6	2,3	4,4	1,9	3,8	2,9	3,3
Liberia	3,7	-31,3	2,6	5,3	7,8	9,4	7,1	4,6	6,1	7,3	8,9
Libya	-1,3	13,0	4,4	9,9	5,9	6,0	2,8	-1,6	7,4	-19,0	16,0
Madagascar	-12,7	9,8	5,3	4,6	5,0	6,2	7,1	-3,7	0,3	0,6	2,0
Malawi	1,7	5,7	5,4	2,6	7,7	5,5	8,6	7,6	6,7	6,4	6,0
Mali	4,3	7,6	2,3	6,1	5,3	4,3	5,0	4,5	4,5	5,4	5,3
Mauritania	1,1	5,6	5,2	5,4	11,4	1,0	3,5	-1,2	5,0	5,3	5,5
Mauritius	1,9	4,3	5,8	1,2	3,9	5,4	5,1	3,1	4,1	4,0	4,1
Morocco	3,3	6,1	4,8	3,0	7,8	2,7	5,6	4,9	3,3	4,6	5,0
Mozambique	9,2	6,5	7,9	8,4	8,7	7,3	6,8	6,4	8,1	7,7	7,9
Namibia	4,8	4,2	12,3	2,5	7,1	5,5	4,3	-0,7	4,2	4,8	4,6
Niger	5,3	7,7	-0,8	7,2	5,8	3,4	9,3	-1,2	5,5	4,9	11,5
Nigeria	21,3	10,2	10,5	6,5	6,0	6,4	6,0	7,0	8,1	6,9	6,7
Rwanda	9,4	0,3	5,3	9,0	9,2	5,5	11,2	4,1	7,4	6,5	7,0
São Tomé & Príncipe	11,6	5,4	6,6	5,7	6,7	6,0	5,8	4,0	4,5	5,0	6,0
Senegal	0,7	6,7	5,9	5,6	2,3	4,7	3,2	2,2	4,2	4,5	5,0
Seychelles	1,2	-5,9	-2,9	6,7	9,5	9,6	-1,3	0,7	6,0	4,0	4,5
Sierra Leone	27,4	9,5	7,4	7,3	7,4	6,4	5,5	3,2	4,5	5,1	6,0
Somalia	...	...	...	...	...	...	...	...	...	...	...
South Africa	3,7	2,9	4,6	5,3	5,6	5,5	3,7	-1,7	2,8	3,6	4,3
Sudan	5,4	7,1	5,1	6,3	11,3	10,2	6,8	4,5	5,0	5,1	5,3
Swaziland	1,8	2,2	2,9	2,5	3,3	3,5	2,4	1,2	2,1	1,9	2,2
The United Republic of Tanzania	7,2	6,9	7,8	7,4	6,7	7,1	7,4	6,0	6,8	6,9	7,3
Togo	-1,3	4,8	2,5	1,2	3,9	2,1	2,4	3,2	3,4	3,7	4,0
Tunisia	1,8	5,6	6,0	4,1	5,4	6,3	4,6	3,0	3,7	1,1	3,3
Uganda	7,1	6,2	5,8	10,0	7,1	8,1	10,4	5,3	5,1	5,6	6,9
Zambia	3,3	5,1	5,4	5,3	6,2	6,2	5,7	6,4	6,6	6,5	6,7
Zimbabwe	-5,9	-7,4	-3,6	-4,1	-3,5	-3,3	-14,0	5,7	8,2	7,8	5,4
Africa	5,7	5,3	6,1	5,9	6,2	6,5	5,5	3,1	4,9	3,7	5,8

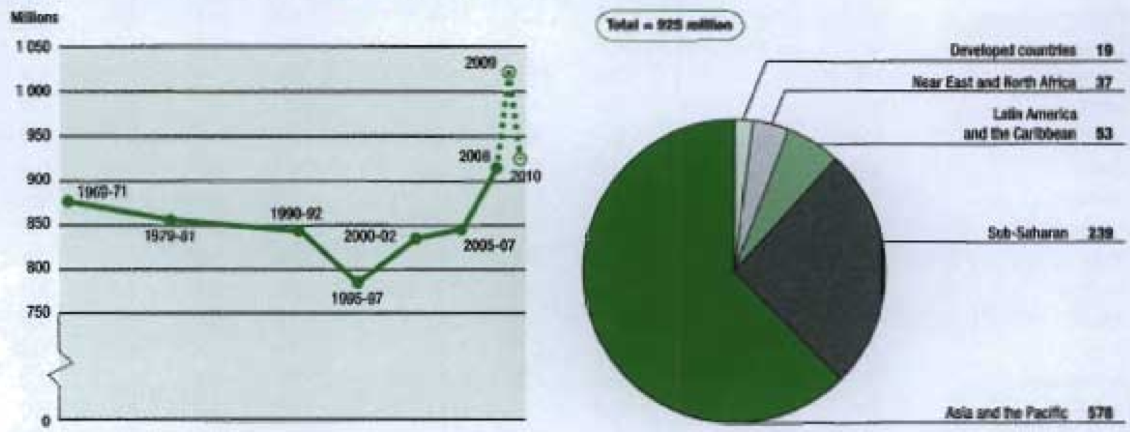
Sources: AfDB Statistics Department, IMF World Economic Outlook (March 2011) and data report in www.AfricanEconomicOutlook.org .

African countries have the potential to make the transition from conventional to sustainable development, given the encouraging economic growth performances. However, the transition will require significant policy shifts, as well as financial and technical resources to cushion the effect and avoid a deterioration of poverty levels. Specific programmes and policy adjustments will need to be supported for some time. It is for this reason that an Africa Sustainable Development Fund initiative is desirable.

(c) Progress in poverty eradication

The most recent estimates of the number of hungry people in the world released by FAO puts the total at 925 million (FAO, October 2010). Although this is down from the peak in 2009, the upward trend over the last 15 years is the result of a number of factors, including: 1) neglect of agriculture; 2) the current global economic crisis; and 3) the significant increase in food prices over the last several years, which has been particularly devastating for the poor. The 925 million hungry people in the world account for 13.6 per cent of the estimated world population of 6.8 billion. Nearly all the undernourished are in developing countries, with the African region accounting for more than 239 million.

Fig. 2: Number of hungry people, 1969-2010



Source: FAO.

The FAO estimate is based on statistical aggregates. FAO first estimates the total food supply of a country and derives the average per capita daily food intake from that. The distribution of average food intake for people in the country is then estimated from surveys measuring food expenditure. Using this information and minimum food energy requirements, FAO estimates how many people are likely to receive such a low level of food intake that they are undernourished.

With a global population of about seven billion people, if an estimated 925 million are hungry, this means one person in every seven is hungry. In the Africa region, this means one African in every four is hungry and malnourished. This ratio has to decline significantly in order to reach the world average, which is itself unacceptable.

If properly reformed, agriculture could do much to address Africa's chronic hunger challenge. World agriculture today produces more calories per person than it did 30 years ago, in spite of the growth in population. As estimated by FAO (2002, p. 9) this is enough to provide everyone in the world with at least 2,720 kilocalories per person per day. Improving agricultural output and productivity is therefore central to addressing the hunger problem in Africa.

<u>Causes of hunger:</u>

a. *Poverty is the principal cause of hunger:* The causes of poverty include an extremely unequal income distribution in the world and within specific countries, conflict, and hunger itself. In 2008 (2005 statistics), the World Bank estimated that there were 1,345 million poor people in developing countries who lived on US$ 1.25 a day or less. This should be compared with the later FAO estimate of 1.02 billion undernourished people. Extreme poverty remains an alarming problem in the world's developing regions, despite some progress that has reduced "dollar-a-day" (now $1.25-a-day) poverty from (an estimated) 1,900 million people in 1981, a reduction of 29 per cent over the period. Progress in poverty reduction has been concentrated in Asia, and especially East Asia, with the major improvement occurring in China. In sub-Saharan Africa, the number of people in extreme poverty has increased;

b. *Poor governance/ineffective economic systems*: poor economic policies are a major cause of hunger and poverty. Essentially, control over resources and income is based on military, political and economic power that typically ends up in the hands of a minority that lives well, while those at the bottom barely survive, if they survive at all;

c. *Conflict as a cause of hunger and poverty*: At the end of 2005, the global number of refugees was at its lowest level for almost a quarter of a century. Despite some large-scale repatriation movements, the last three years have witnessed a significant increase in refugee numbers due primarily to violence. By the end of 2008, the total number of refugees under UNHCR's mandate exceeded ten million. The number of conflict-induced internally displaced persons (IDPs) reached some 26 million worldwide at the end of 2010;

d. *Hunger is also a cause of poverty, and thus of hunger*: By causing poor health, low levels of energy, and even mental impairment, hunger can lead to even greater poverty by reducing people's ability to work and learn, thus leading to even greater hunger; and

e. *Climate change*: Climate change is increasingly viewed as a current and future cause of hunger and poverty. Three key issues are increasing drought, flooding, and changing climatic patterns requiring a shift in crops and farming practices that may not be easily accomplished.

(d) Progress in reducing the number of hungry people

The target set at the 1996 World Food Summit (WFS) was to halve the number of undernourished people by 2015 (from the number in 1990-92). (FAO uses three-year averages in its calculation of undernourished people.) The estimated number of undernourished people in developing countries was 824 million in 1990-92. By 2009, the number had climbed to 1.02 billion people. The WFS goal is a global goal adopted by the nations of the world. The present outcome indicates how marginal the efforts have been in the face of the real need. Thus, overall, the world is not making significant progress towards the WFS goal. Although there has been progress in Asia, Latin America and the Caribbean, there has been very little in the African region.

Table 3: Population in poverty

Region	% in $1.25-a-day poverty	Population (millions)	Pop. in $1-a-day poverty (millions)
East Asia and Pacific	16.8	1,884	316
Latin America and the Caribbean	8.2	550	45
South Asia	40.4	1,476	596
Sub-Saharan Africa	50.9	763	388
Total Developing countries	28,8	4,673	1,345
Europe and Central Asia	0.04	473	17
Middle East and North Africa	0.04	305	11
Total		5,451	1,372

Source: World Bank

UNDP (2003) provides a widely referenced definition of poverty as consisting of two major dimensions: income poverty, which is the lack of income necessary to meet basic needs; and human poverty, which is lack of human capabilities ranging from poor life expectancy, poor maternal health, illiteracy, poor nutritional levels, poor access to safe drinking water and participation, all which affect human well-being. There is a strong correlation between the two components. Since the first Summit on Sustainable Development, a number of global and regional commitments have been made to address poverty eradication and promote wealth creation in developing countries. The most decisive of these commitments are the MDGs, which look at the totality of human development and aim to cut poverty by half by 2015. Prior to the MDGs, governments at the World Summit for Social Development held in Copenhagen, Denmark in 1995, had pledged to eradicate poverty through decisive national actions, which included implementing national anti-poverty plans and international cooperation. It is also worthy of note that, in the context of the Beijing Declaration and Platform for Action, governments agreed to promote gender mainstreaming in all policies and programmes, including those aimed at poverty eradication (UNECA, 2004).

The JPOI stressed that eradicating poverty was the greatest global challenge facing the world and a sine qua non for sustainable development in poor countries. The Plan places the responsibility for sustainable development and poverty eradication at the level of the country, with emphasis on the role of national policies and development strategies. It called for concrete actions and measures to eradicate poverty in the region and to enable countries to achieve the goals of sustainable development. The Plan endorsed the internationally agreed poverty-related targets and reaffirmed the MDGs of halving the number of people whose income is less than one dollar a day, suffering from hunger, and without access to safe drinking water by 2015. It is also worth noting that JPOI called for the establishment of a World Solidarity Fund to eradicate poverty. At the national level, it called for the empowerment of people living in poverty through the delivery of health services, increased food availability and affordability, increased access to sanitation, and promotion of full and equal participation in development. It enjoined the international community to support NEPAD, including its key objective of eradicating poverty. Furthermore, the Outcome Document of the 2005 United Nations World Summit resolved that countries with people in extreme poverty should adopt and implement MDG-based PRSPs or MDG-based national development plans (UNECA and AU, 2006).

(i) Regional level responses to the promotion of growth, achievement of the MDGs and poverty eradication

The AU has been at the forefront of efforts to reduce poverty and create wealth in the Africa region. It expressed its commitment to facilitating accelerated progress towards the MDGs by African countries through a Common Position that was presented to its own 2005 Summit, the G-8 Gleneagles Summit, and the 2005 World Development Summit. The AU reiterated its commitment to bringing about poverty eradication and meeting all the MDGs at the 2006 Banjul Summit, and the 2007 Accra Summit. It convened an Extraordinary Summit on Employment and Poverty Alleviation that was held in Ouagadougou, Burkina Faso, in September 2004, where a Plan of Action and Follow-up Mechanisms were adopted, calling upon Member States to place employment at the centre of their economic and social policies. The Summit also agreed to include initiatives on employment creation and poverty alleviation as indicators in the APRM.

Over the period covered by this report, the United Nations System made visible efforts to support African countries and the AU on poverty-related issues in different areas. The International Labour Organization (ILO) is assisting in the implementation of the outcomes of the Extraordinary Summit on Employment and Poverty Alleviation and has aligned its work plans with the outcomes and recommendations of the Ouagadougou Summit. ILO's document *The Decent Work Agenda in Africa: 2007 – 2015*, launched at the 11th African Regional Meeting in April 2007, details some of the activities ILO is undertaking to assist the Africa region. At the national level, ILO is working with governments to advance poverty eradication through Decent Work Country Programmes. At the regional level, ILO is working to strengthen the role of AU and RECs.

UNDP, in partnership with United Nations agencies, UNECA and the Bretton Woods institutions, is providing support to 35 African countries that have embarked on the process of preparing and implementing MDG-based national strategies and action plans. UNECA's 39th Conference of African Ministers of Finance, Planning and Economic Development in May 2006 had the theme *Meeting the Challenge of Employment in Africa*. The ministerial statement reasserted the important role of employment in poverty reduction and stressed the need to incorporate employment objectives in national development and poverty reduction policies. The Commission's 40th Conference in April 2007 was devoted to the theme *Accelerating Africa's Growth and Development to Meet the MDGs: Emerging Challenges and the Way Forward*. The Conference's ministerial statement reiterated the importance of the MDGs in poverty eradication and highlighted the regional and national level actions required to achieve them. UNECA, through the African Learning Group on PRSPs/MDGs, has facilitated capacity-building and learning among Member States. At the country level, UNECA has also provided advisory services to African countries, especially Liberia, Ghana and Ethiopia, in order to help policymakers design and implement MDG-based PRSPs. AfDB has provided technical and financial support by scaling up investments for poverty eradication. The African Capacity Building Foundation (ACBF) has supported policy centres and training institutions in 40 African countries to strengthen their ability to the design and implement poverty eradication policies and programmes. It has assisted Mali, Burundi, Mozambique, among others, to develop a poverty reduction programming, implementation, monitoring and evaluation programme.

(ii) National level responses

Over the period covered by this report, countries in the region developed national development plans that incorporated poverty reduction strategies (PRS). Starting from 1999, countries receiving debt relief and concessionary loans and grants from the World Bank and the IMF, were required to prepare Poverty Reduction Strategy Papers (PRSPs). Since 2000, some 30 African countries have developed and implemented PRSPs. Even non-HIPCs (Heavily Indebted Poor Countries), such as Botswana, Egypt, Morocco, Nigeria and Zimbabwe, prepared and implemented national poverty reduction strategies. In some countries, such as Nigeria and South Africa, subnational governments prepared poverty reduction strategies.

Countries in the region also developed national development strategies and medium-term expenditure frameworks that integrated the MDGs. This ensured inclusion of both income and human poverty into national development policies and programmes. By 2007, some 40 countries had started to prepare national development strategies that were aligned to the MDGs (United Nations MDG Report, 2007).

a. Achievements

A review of the impact of the implementation of PRSPs on poverty in recipient countries shows that the PRSP Framework has had a positive effect on efforts to reduce poverty and promote economic growth. The poverty focus of national development strategies has improved and growth has resumed on a sustainable basis in many countries. The incidence of poverty decreased in a number of countries. The 2007 United Nations MDG Report showed that the proportion of the population living on less than one dollar a day decreased from 46.8 per cent in 1990, to 45.9 per cent in 1999, and further to 41.1 per cent in 2004. Sub-Saharan Africa (SSA) remains the subregion with the highest number of people living in income poverty. Although there has been some improvement in the poverty gap (which measures the distance of the poor below the poverty line, as a proportion of the line) from 19.5 per cent in 1990 to 17.5 per cent in 2004, SSA still has the highest poverty gap in the world, indicating that the poor in this region are the most economically disadvantaged (United Nations, 2007). The incidence of poverty in North African countries was constant at two per cent over the same period.

The high levels of poverty are exacerbated by income inequality in the region. The level of income inequality did not improve significantly over the period of this report. Furthermore, as noted by UNECA (2005), in most countries of the region, the incidence of poverty remained much higher in rural areas than in urban areas due largely to the distribution of economic activity between rural and urban areas. In addition, the prevalence of poverty in Africa is not gender-neutral. National level data shows that poverty is more extreme among female-headed households than male-headed households. Furthermore, the PRSP Framework and the MDG targets are having a positive effect on the mobilization of external resources for development. For example, at its Gleneagles Summit the G8 agreed to cancel the debt of 18 of the poorest countries in the World in 2006, of which 14 were in Africa (UNECA and AU, 2006).

b. *Challenges and constraints*

It can be seen from the above that there is good evidence that the African region is on the path to achieving a number of the MDGs, cutting poverty and promoting wealth creation and that the past two decades have seen encouraging results. There are challenges and constraints, however. Poverty remains a major development challenge, just as much as income distribution. The fruits of economic growth are failing to reach a progressively larger percentage of the people. Growth has not been labour-intensive in the countries that have recorded sustained growth, which has occurred largely in capital-intensive extractive sectors. Growth has largely been jobless, unevenly distributed, and volatile (UNECA and AU, 2007).

Other challenges include political instability; climate change, which is increasing the vulnerability of African countries to natural disasters and threatening economic growth and development, thereby posing a major challenge to poverty eradication; HIV/AIDS, an important factor pushing individuals below the poverty line as a result of social and economic exclusion because of stigma, and its devastating economic impacts; human and institutional capacity constraints, which adversely affect the ability to design, implement, monitor and evaluate poverty eradication policies and programmes; paucity of data, which remains a severe constraint on policymaking; weak mobilization of domestic resources; and low rate of delivery of promised aid and debt relief.

d. *Lessons learned and way forward*

The need to attain sustained pro-poor economic growth is compelling. It is vital to provide an environment in which all are able actively to participate in the growth process. There is also a need for further diversification of economic activity in the region's economies. The vulnerability to shocks of SSA economies needs to be addressed if sustainable growth is to be achieved. Growth patterns that reduce inequality (pro-poor growth) are more likely to reduce the number of years needed to halve poverty than growth that leaves inequality as it is. Equity in terms of access to employment opportunities, productive resources such as land and credit, and basic social services, such as health, education, water and sanitation, is central for poverty reduction.

Furthermore, the current pattern of growth has to shift to one that generates employment. In order for this to occur, it is critical that the production structure of economies in the region diversifies away from natural resource sectors to labour-intensive sectors such as the service industry. Major lessons learned from the review of the PRSPs are that the framework paid insufficient attention to important areas such as trade, employment, social protection and gender. The trade and regional integration aspects of poverty reduction programmes need to be strengthened in landlocked countries as trade and regional integration can significantly reduce poverty through joint regional infrastructure programmes. Poverty reduction strategies should aim to promote equal opportunities for women and men. When women are empowered to live full and productive lives, children are lifted out of poverty.

There is a need to mainstream social protection in National Development Strategies/PRSPs. Social protection schemes are needed to provide safety nets for those who are vulnerable to income shocks such as frictional unemployment, ill health, HIV/AIDS and old age. This will also help in improving equity. An important emerging lesson coming out of country experiences on poverty eradication is that countries need to own their national development and be provided with the policy space to design strategies that meet the specific needs of the country. Countries also need to develop capacity for monitoring and evaluating progress in poverty eradication. To this end, capacity should be strengthened to collect and analyse data that is essential for monitoring poverty eradication.

There is a pressing need for countries to improve revenue collection and public expenditure management. However, robust domestic resource mobilization strategies must be complemented by credible resource commitments by development partners in order to support national strategies for development in the core areas of infrastructure, human capital, regional integration and governance. Delivery of promised aid and debt relief will allow countries in the region to boost expenditure in key sectors essential for poverty eradication.

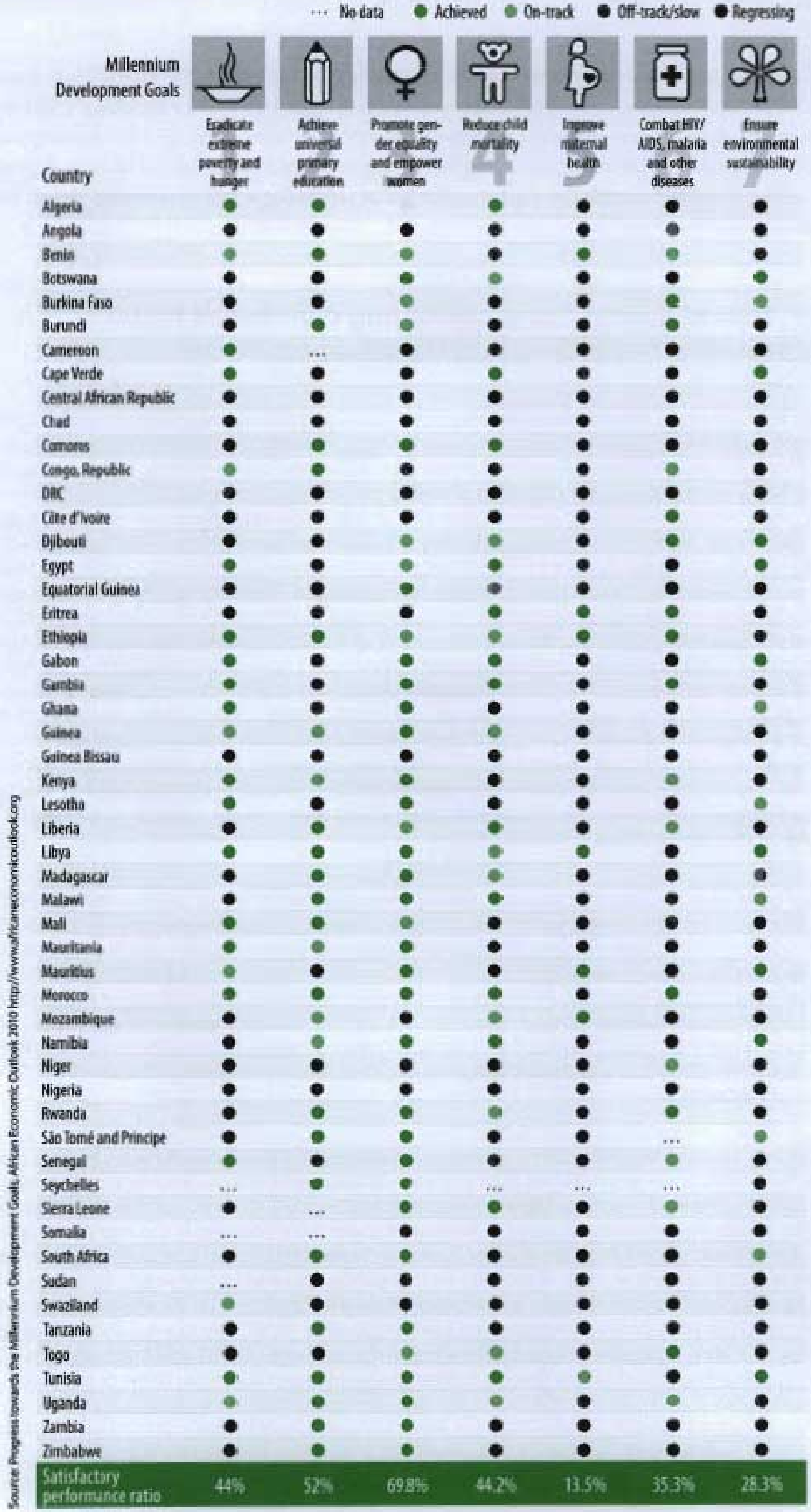
Box 7: Trail of success and continuing challenges in the achievement of the Millennium Development Goals

Measured from baselines, the evidence is strong and encouraging that Africa is making good progress towards some of the Millennium Development Goals (MDGs). Among the 20 top MDG-achievers are Benin, Burkina Faso, Ethiopia, the Gambia, Ghana, Malawi, Mali, Mauritania, Rwanda, Togo and Uganda. Reports show that Africa has made steady progress in achieving universal education, with 76 per cent net enrolment in primary education in 2008, up from 58 per cent in 1999. By 2008, there were close to 91 girls per 100 boys in schools, up from 85 in 1999. Under-five mortality rates dropped from 184/1000 in 1990 to 144/1000 in 2008. About 60 per cent of people had access to drinking water in 2008, compared to 49 per cent in 1990. Specific country cases have been very instructive. These include, for instance, Uganda, which succeeded in reducing poverty from 56 per cent in 1993 to 24.5 per cent in 2010; improved school enrolment to 82.4 per cent for boys and 83.2 per cent for girls in 2009; provided access to drinking water to 73.9 per cent of the population; and succeeded in bringing about a strong reversal in the infection rate of HIV/AIDS. Burkina Faso nearly doubled the number of children in primary schools, while providing daily meals for all children and take-home rations for girls. Ghana has already met its target on reduction of the proportion of under-nourished children through increased agricultural productivity and provision of nutritional supplements and school feeding programmes. Rwanda was ranked first in the world in 2009 with more than 50 per cent women's representation in the national parliament, while in Angola, Burundi, Lesotho, Mozambique, Namibia, South Africa, The United Republic of Tanzania and Uganda women account for more than a quarter of representatives in parliament.

The trail of success stories also includes Mali, Senegal and Togo, which are on track on the HIV/AIDS target, driven by a combination of effective leadership, awareness-raising programmes, the introduction of voluntary testing, and provision of free anti-retroviral therapy; Malawi that has reduced the number of people living on food handouts from 1.5 million to 150,000 in five years; in 2008, Botswana, Comoros, Mauritius, Namibia and South Africa reached over 90 per cent coverage for access to safe drinking water; Kenya's National Land Policy and new constitution guarantee the right to food, strengthen women's rights, promote stronger land ownership rights for women and protect community land interests; and the independence of South Sudan on 9 July 2011, which is paving the way to peace, effective governance and the right to fundamental freedoms.

Thus, generally, low and middle income countries are making concrete and measurable progress towards achieving the MDGs; there is substantial improvement in political governance, leadership commitment and accountability as drivers of progress. Many of the misleading negative reports on progress towards achievement of the MDGs are unfounded as real and tangible changes have occurred in the lives of millions of poor Africans. Complacency is not in order, however, as many challenges remain. Public sector accountability; empowerment of local communities; vigorous pursuit of gender equality; investment in human development; substantial improvement in health and education budgets; infrastructure development; maintenance of sound macroeconomic policies; promotion of job-rich growth in order to reduce youth unemployment substantially, boosting agricultural productivity through empowerment of small-scale farmers; as well as providing opportunities for vulnerable groups, including women and children, are some of the major areas requiring attention.

Fig.3: Africa – MDGs scorecard



Source: Africa Progress Panel, Africa Progress Report 2011

(e) Agriculture for sustainable development

How the region responds to the challenges facing agricultural growth will determine the extent to which it is able to address sustainable growth, human development and poverty eradication. Agriculture is the main source of livelihood for about two thirds of Africa's population. It contributes about one third of the continent's gross domestic product (GDP) and is the dominant activity in the rural areas, which account for about 70 per cent of the population. This means that, until there is a significant structural change in African economies, addressing the growth challenge will require extensive transformation of the agricultural sector. Estimates by the World Bank show that growth in the agricultural sector is twice as effective in reducing poverty as growth in other sectors.

This is true in particular because the sector remains the highest employer of labour in the region. Agricultural development is of fundamental importance to the achievement of broad-based economic growth and sustainable development. The mid-1960s Green Revolution, which brought about increases in food production and rural incomes, as well as sustainable modernization of agriculture and rural transformation elsewhere in the world, was not very successful in Africa for reasons that include the region's diverse agro-ecological zones, farming systems, socio-cultural contexts and ineffective policies.

WSSD reiterated the Millennium Declaration target of halving the proportion of the world's people who suffer from hunger by the year 2015. The Africa chapter of the JPOI calls for support for the development and implementation of national policies and programmes to reinvigorate the sector. It also calls upon African countries to develop and implement food security strategies within the framework of national poverty eradication programmes by 2005. This supports NEPAD's agricultural sector objectives, which are to: improve the productivity of agriculture, with particular attention to small-scale and women farmers; ensure food security for all, and increase access of the poor to adequate food and nutrition; and to grow the region into a net exporter of agricultural products.

(i) Concrete actions taken and progress made

Since WSSD and in pursuit of sustainable agricultural development, countries in the region have taken measures at the national, subregional and regional levels to boost the development of the agriculture and rural sector. These measures included the following:

a. The Maputo Summit Declaration endorsed the CAADP Plan of Action and the commitment by African leaders to allocate at least ten per cent of national budgets to agricultural development;
b. The Sirte Declaration on Agriculture and Water, which adopted the development of strategic agricultural commodities;
c. The Fertilizer Summit adopted the resolution to increase fertilizer use in the region from 8 kg per hectare to 50 kg by 2015;
d. The Abuja Food Security Summit recommended the establishment of an African Common Market for basic food products;
e. FAO's cross-country partnership and regional integration programmes geared towards enabling countries to confront successfully the challenges of food insecurity and solve regional problems through collective action. The organization works directly with RECs to promote structural reforms and policy harmonization; transboundary issues relating to food trade and safety; and support to national programmes for food security and water;
f. The Regional Food Security Programmes (RFSP) work to strengthen national programmes by holding capacity-building and training sessions with country representatives, along with other initiatives to enhance national capacity; and
g. Support by the International Fund for Agricultural Development (IFAD), which plays a key role in the NEPAD Pan-African Cassava Initiative (PACI) aimed at disseminating new cassava-processing technologies and developing regional markets for the crop. Cassava production in Africa has more than tripled since 1961 from 33 million metric tons per year to 101 metric tons, making the continent the largest producer. In countries like Ghana and Nigeria, wide adoption

of high-yielding varieties and improved pest management have been largely responsible for the sharp rise in production.

Based on these and other measures, the performance of agriculture in Africa has improved slightly. In recent years, annual agricultural growth has averaged around 3.9 per cent. However, while there has been growth, it has yet to have a significant impact on food security and poverty. Nevertheless, it has been possible over the last decade to lift agricultural growth to a level above the rate of population growth in the region as a whole, and substantially more in a few countries. This is an encouraging trend as it shows that agriculture can be successful in the region. Production of cassava, fruit and vegetable exports, tea production and export, and fisheries are subsectors where success has been undeniable. Moreover, in terms of growth, agriculture has performed relatively better, on average, than the rest of the economy of SSA. Nevertheless, despite the progress, Africa's food security situation remains precarious, as is shown by the 2011 food crisis in the Horn of Africa caused by severe drought in Somalia, southern Ethiopia and northern Kenya.

Box 8: The Comprehensive Africa Agricultural Development Programme (CAADP)

The Comprehensive Africa Agricultural Development Programme (CAADP) is an initiative by African Governments under the auspices of the African Union and the New Partnership for Africa's Development (NEPAD), now the NEPAD Planning and Coordinating Agency (NPCA). Its aim is to enhance agricultural productivity in Africa, lift the level of food security on the continent, and bring agriculture to lead efforts at eliminating hunger and extreme poverty in Africa. CAADP was endorsed by African Heads of State and Government in 2003. It is a framework that provides guidance for agriculture-led economic growth and development in Africa, and therefore an integral part of – or an organizing platform for – efforts to transform agricultural policy and strategy, as well as agricultural investment planning, design, implementation, monitoring and evaluation, based on partnership among national stakeholders and with the international development community.

The development of CAADP was based on technical advice from Africa's professional communities and extensive dialogue with national and international development stakeholders and partners. The initiative offers technical and financial support to countries whose policies, strategies and investment plans are aligned with the CAADP framework. In aligning with CAADP, countries adopt a common commitment to work towards achieving an annual growth rate of six per cent in agriculture; implementation of the outcome of the Maputo Declaration on CAADP by African Governments, which pledged to allocate at least ten per cent of national budgets to the agricultural sector; and to take advantage of and efficiently utilize resources pledged by development partners, starting with the G8 Summit held in Gleneagles, Scotland on 7-8 July 2005.*

CAADP is composed of a set of key principles and targets for achieving its aims by 2015. The vision of agriculture as a driver of poverty and hunger eradication under CAADP is underpinned by four pillars.** So far, there has been significant progress in the implementation of CAADP. Awareness has been raised to the need to shift the perception of CAADP from one that sees the initiative as a series of events to one that recognizes it as a process supportive of key strategic planning and programming in agriculture, identification of financing gaps, and promotion of enhanced and efficient investment in the sector. A number of National Compacts have been signed, and functioning CAADP teams formed in support of CAADP focal-point structures both at the country level and within the principal institutions responsible for overseeing the CAADP agenda at the continental and regional levels; and almost all Pillar framework documents and a CAADP Implementation Guide have been completed as bases on which to convey the substance and processes for successful implementation of CAADP at the country level.

There has also been a move towards streamlining the activities of Pillar Lead Institutions and relevant knowledge networks in Africa in order to enhance their response to country demands for support for CAADP round-table processes. There has been visible progress in the establishment of a process for engaging with development partners on a broader plan for financing agriculture, especially in the ECOWAS region. Engagement of key CAADP institutions in Africa with the donor community has resulted in increased programme support for African agriculture, including technical and financial support for "CAADP early actions", by both traditional and non-traditional state donors, as well as by private foundations. High-level advocacy for CAADP, led primarily by AUC and NPCA, has made it possible for recent G8 deliberations to consider CAADP a key delivery mechanism for revitalizing agriculture across Africa, thereby paving the way for fruitful international engagements in the foreseeable future. Significant political backing for CAADP by African Heads of State and Government at the 13th African Union Summit in July 2009, which discussed the theme ***Investing in Agriculture for Economic Growth and Food Security***, underscored the seriousness with which Africa embraces the CAADP agenda, while, through this assessment and a number of previous engagements, FAO has launched the process of strengthening the capacity of CAADP national teams to enable them to effectively drive country agricultural development processes.

CAADP has begun to have some encouraging results. By December 2011, 42 countries had been actively engaged in the CAADP process. Of these, 30 had signed CAADP National Compacts and 21 had developed agricultural and food security investment plans.*** By the end of 2011, the region had registered an average 75 per cent increase in agricultural spending. Eight countries had reached or surpassed the CAADP target of ten per cent of national budget allocations to agriculture, while another 16 had reached expenditure shares of five to ten per cent. No fewer than an additional 12 countries had made significant progress towards entrenching CAADP values and principles and setting evidence-based priorities. Some ten countries had recorded an annual growth rate of at least six per cent in the agricultural sector.

* At the Gleneagles and Millennium +5 summits in 2005, development partners made a commitment to increase aid. OECD estimates indicate that this implied an increase in aid from about US$ 80 billion in 2004 to nearly US$ 130 billion in 2010 at constant 2004 prices. Based on donors' budgets for 2010, commitments made for the year by donors indicate that ODA for the year will hover around US$ 126 billion at constant 2004 prices. This will amount to an increase of US$ 46 billion over 2004 commitments, which falls slightly short of the US$ 50 billion originally estimated. This is not the final outlook for 2010, however, as the actual figure is lower. While a number of countries have maintained their ODA commitments for 2010, some, including large donors, have actually reduced or shelved the pledges they had made for 2010. According to the latest estimates of the OECD Secretariat, which are based on the most recent 2010 budget proposals and gross national income figures, the overall estimated ODA figure for 2010 is US$ 108 billion at 2004 constant prices. If expressed in 2009 constant prices, the ODA figure for 2010 is US$ 126 billion, representing an increase of about US$ 6 billion over commitments in 2009.

Despite the shortfalls, ODA increased by nearly 30 per cent in real terms between 2004 and 2009, and is expected to rise by nearly 30 per cent between 2004 and 2010. This is the largest increase in ODA over such a period. The continued growth in ODA has shown that aid pledges are effective when backed with adequate resources, political will and firm multi-year spending plans. Unlike other financial flows to developing countries, which have plummeted sharply as a result of the effect of the global financial crisis, ODA will continue to grow in 2010.

** The four pillars are- Pillar 1- Extending the area under sustainable land management and reliable water control systems; Pillar 2- Improving rural infrastructure and trade-related capacities for market access; Pillar 3- Increasing food supply and reducing hunger; and Pillar 4- Agricultural research, technology dissemination and adoption.

*** Compacts signed- COMESA countries- March 2007, Rwanda; August 2009. Burundi and Ethiopia, March 2010. Swaziland and Uganda; July 2010. Kenya; ECOWAS countries- July 2009, Togo; and subsequently Sierra Leone, Niger, Mali, Liberia, Benin, Ghana, Nigeria, the Gambia, Cape Verde and Senegal. The ECOWAS Regional Partnership Compact was signed in November 2009.

Box 9: CAADP complementary programmes

The programmes that complement CAADP include:

- TerrAfrica, a sub-Saharan Africa programme to improve sustainable land and water management
- The Fertilizer Support Programme, created to improve the use of fertilizer across the region
- The Partnership for African Fisheries, prepared to improve sustainable returns from Africa's fisheries
- The African Biosciences Initiative, designed to harness biological applications in agriculture

Emerging Results from CAADP:

- December 2011: 42 countries were engaged in CAADP process; 30 had signed country CAADP Compacts, and 21 had developed country Agriculture, Food and Nutrition Security Investment Plans;
- 2011: eight countries had reached or exceeded the ten per cent allocation of budgetary expenditure to agriculture;
- 2011: ten countries had registered an annual growth rate of six per cent or more in agricultural productivity. These countries are: Angola, Ethiopia, Mali, Mozambique, Namibia, Niger, Rwanda, Senegal, The United Republic of Tanzania and Uganda. 19 other countries registered growth of between three per cent and six per cent;
- 2000-2005: share of agricultural spending rose by 75 per cent;
- Funding for CAADP activities is coordinated through channels such as the Global Agriculture and Food Security Programme (GAFSP) and the Multi-Donor Trust Fund (MDTF);
- Ethiopia, Niger, Rwanda, Sierra Leone and Togo have so far had their national food and agricultural investment plan supported under GAFSP.

(ii) Challenges and constraints

In spite of the huge potential of African agriculture, African farmers perennially lack access to productive inputs, including specialized skills and knowledge for the transformation of the agricultural sector. There is underinvestment in agricultural initiatives that support productivity and agricultural capacity development. Coupled with constraining legal frameworks and environmental challenges, including climate change, these challenges have continued to help to lower the potential of the agricultural sector, extend the avoidable reach of increasing hunger, and disable opportunities for agricultural production. The situation was recently worsened by the global food crisis, which has hit the region very hard. The World Bank estimated that commodity prices rose by more than 80 per cent in 2008 and continue to remain high, while FAO reported that an additional 40 million people joined the global population of hungry people between 2007 and 2008.[13]

Other challenges include natural and human-induced disasters arising from climate change and environmental degradation; political unrest and armed conflicts, which displaced farmers from productive land, destroyed infrastructure and littered the countryside with land mines and unexploded ordinance; weak governance; and poor land reform policies that have affected productive use of land resources. Furthermore, weak institutional capacity has contributed to poor policies that have proved incapable of addressing the challenges of agricultural and rural development. The brain drain, hasty implementation of poorly though out reforms, and urban bias are also factors that helped to weaken agricultural growth and productivity. In mineral-rich countries, macroeconomic conditions have also been unfavourable to agriculture, undermining its competitiveness.

Agricultural growth can come from expansion of cultivated land, increased productivity, diversification into higher value-added products or a combination of all three. It can also come from reduced wastage and post-harvest losses. However, expansion of cultivated land in many sub-Saharan countries has been con-

13 See William Saint, (2009), "Who Understands Africa's Agriculture? Too Few!" World Bank; Sparking Agricultural Development in Africa, June 2009. www.one.org; World Development Report 2008: Agriculture for Development, World Bank, Washington D.C.

strained by physical access, insecure land ownership, limited access to animal and mechanical power and reduced availability of labour as a result of migration, competition from off-farm activities and diseases such as HIV/AIDS. Productivity has remained low because of underutilization of water resources, limited fertilizer use, limited use of improved soil fertility management practices and weak support services (research, extension and finance). Recurrent drought, plagues and related increased risks have discouraged the investment that is indispensable for raising productivity.

Poorly functioning and inefficient markets (largely due to a weak private sector in most countries), insufficient investment in infrastructure, high transportation costs, weak information systems and poor regulatory frameworks have hampered returns for producers and prevented them from investing and specializing in new and high-value products.

This situation calls for an effective agricultural growth strategy in the region. A comprehensive approach that deals with the range of challenges that Africa's agriculture faces is critical to sustainable growth and poverty eradication. Significant investment in medium- and long-term initiatives that would provide resources, technical skills and knowledge to boost agricultural productivity would enable Africa to benefit immensely from increased economic growth and food security. This explains why CAADP represents a response that the region urgently needs. It is an impetus that will generate a momentous transformation of African agriculture.

Box 10: CAADP: some capacity implications

The CAADP National Compact and the national agricultural investment plan are two key activities in the CAADP national process. The National Compact sets the framework for long-term partnership in the agricultural sector; specifies key commitments on the part of the government, development partners and other stakeholders; and clarifies expectations with respect to agribusiness and farming communities in order to ensure successful implementation of the investment plan. It is a framework under which assistance can be scaled up to help meet the medium- to much longer term investment needs of the agricultural sector and to ensure that there is predictability as well as effective planning, budgeting and application of resources from development assistance.

The CAADP Implementation Guide provides detailed analysis of what capacities are required by the country process and its drivers. These are essentially effective and efficient human and institutional capacities of all stakeholders (public, private sector, civil society, especially grassroots community-based organizations) to plan, deliver services, support investment plan development, monitor activities, promote sustainable exploitation of natural resources, mitigate risks to producers, and mainstream gender and youth considerations in sector activities. The country teams should be able to identify initiatives and schemes that provide new impetus to agricultural growth; set up technical platforms to articulate issues requiring reform; and follow through commitments made in the Compact. They must also be able to mobilize the required political, financial and technical support for the process and strengthen its visibility and national ownership.

This means that the success of CAADP depends on commitment to the National Compact and the effectiveness of the national team. The team has to ensure that the Compact is implemented and that deliverables are produced. The effectiveness of the team is a function of its capacity, which consists of the skills and knowledge of the individuals of whom it is composed, the institutional arrangements under which it functions and the environment in which it operates. The national teams need to be highly skilled and knowledgeable and have the capacity to facilitate development and review of national agricultural policies and investment programmes, ensuring effective participation and ownership of the outputs by all key stakeholders. They also need to push for strong support from government for reform of policies and regulations in order to create, nurture and sustain an enabling environment that will ensure successful implementation of investment programmes. Individual and collective skills and knowledge will need to be developed in such areas as strategic and evidence-based planning and investment analysis, as well as risk analysis and management, among others. It is desirable for national teams to have access to knowledge resources in the form of databases, knowledge networks; coaching and mentoring support; and advisory services, among others. Thus, national teams will need to benefit from direct capacity development support and advisory services.

(iii) Lessons learned and way forward

In order to achieve sustainable growth and reduce poverty in Africa, the region must address the constraints and challenges facing the agricultural sector and rural development. Solutions will include effective public policies and resource support; better management of water and soil resources; application of improved technology; better remuneration of farmers; and market-oriented production systems. Structural transformation is needed over the longer term so that resources and employment shift from agriculture and other primary-product producing sectors to higher productivity (higher wages and salaries, output, etc.) sectors, such as industry and services. This process will be triggered by the use of the improved knowledge systems embodied by new technologies, management practices and institutions as a crucial source of comparative advantage and competitiveness vis-à-vis conventional comparative advantage gained by natural resources endowments.

Cities and towns are critical engines of rural economic transformation. They are centres of innovation and provide formal and informal markets (with rural-urban linkages) for rural products, and serve as market information centres for agricultural production. Their sustainable growth and development should therefore be factored into agricultural and rural economic policies and strategies. Efforts at structural transformation of agriculture should therefore address, in an integrated approach, issues of Technology, Infrastructure, Institutions and Policies (TIIP), as well as urban-rural linkages, with a view to achieving two key objectives: maximizing productivity, efficiency and value addition, thereby minimizing unit production costs at the level of each physical transformation stage of commodity subsectors (value chains); and minimizing transaction costs at the different stages of commodity value chains, thereby minimizing the total unit costs of products (goods and services) delivered to the final consumers and improving profits.

(f) Sustainable consumption and production

Sustainable consumption and production (SCP) are fundamental to the pursuit of sustainable development. The JPOI asserts that fundamental changes in the way societies produce and consume are indispensable for achieving sustainable development regionally and globally. It calls for the promotion of sustainable consumption and production patterns by all countries, with developed countries taking the lead, while ensuring that all countries benefit from the process. To this end, the Plan calls on countries to take into account the Rio principles, including the principle of common but differentiated responsibilities. It further enjoins governments, relevant international organizations, the private sector and all major groups to play an active role in changing unsustainable consumption and production patterns.

In order to facilitate the shift towards SCP, WSSD encouraged countries to develop a ten-year framework of programmes in support of regional and national initiatives. As a follow up to this call, the International Expert Meeting on the 10-Year Framework of Programmes for SCP was held in Marrakesh, Morocco in June 2003. This was followed by several consultations in the African region in order to internalize the Marrakesh process.

(i) Concrete actions taken and progress made

The African 10-Year Framework of Programmes: Over the period of this report, the Africa region undertook a number of activities to promote SCP. To this end, the African Roundtable on Sustainable Consumption and Production (ARSCP) was established as a non-governmental, not-for-profit regional coordinating institution during the Third African Roundtable on Sustainable Consumption and Production held in Casablanca, Morocco. Subsequently, the United Nations Environment Programme (UNEP) and United Nations Department for Economic and Social Affairs (UNDESA), in close consultation with the Secretariats of the African Ministerial Conference on Environment (AMCEN) and the ARSCP, facilitated the development of the African 10-Year Framework Programme on Sustainable Consumption and Production (African 10-YFP). The strategic focus of the Programme is linking SCP with the challenges of meeting basic needs.

The First African Expert Meeting on SCP was held in Casablanca, Morocco, in May 2004. The meeting discussed the key issues that needed to be addressed under the framework programme and identified four thematic areas of focus. These were: improvement of water services; energy access and efficiency; the urban SCP environment; and industrial development. The second meeting, held in Nairobi, Kenya, in February 2005, further discussed the four thematic areas and proposed key activities that needed to be undertaken in each area. In February 2005, the outcome was presented to the technical segment of AMCEN, which endorsed it for submission to AMCEN's Ministerial Session. AMCEN, through its Dakar Declaration, approved the African 10-YFP, in Dakar, Senegal, in March 2005, and called upon development partners to provide concrete support to follow-up activities and programmes based on the approved African 10-YFP.

In response to this call, Germany took the lead in announcing the initiative of the "Task Force on Co-operation with Africa" during the Second International Expert Meeting of the Marrakesh Process (San José, Costa Rica, September 2005). This provided the basis for the establishment of the Regional Steering Committee (RSC) for the African 10-YFP, whose overall objective was to facilitate the required coordination of efforts and support for the further development and implementation of the African 10-YFP. Members of the Committee are AMCEN, ARSCP, the AU Commission, UNECA, UNIDO, UNEP and the Federal Ministry of Environment, Germany. Membership is also open to other bilateral and multilateral development partners.

In May 2006, the President of the Federal Democratic Republic of Ethiopia launched the African 10-YFP in Addis Ababa at a high-level session jointly organized by the AU Commission, UNECA and UNEP. The launch was immediately followed by the Fourth Meeting of the ARSCP (ARSCP-4), which identified five focal areas for the follow-up: production and use of biofuel; water efficiency and provision; labelling of African products; waste management; and knowledge and information sharing. Based on the outcomes of the ARSCP-4 and the conclusion of the first meeting of the RSC, the Taskforce on Cooperation with Africa identified the following as the key focal areas for its activities: development of an eco-label for Africa; support for the development and implementation of SCP action plans at national and local level, contribution to UNEP-UK Department of Environment, Food and Rural Affairs manual on SCP strategies; collection of best practices on SCP projects by development agencies; development of new project proposals for cooperation; and support for the development of networks and knowledge-based information tools in the selected fields of action (i.e. waste management and recycling, biofuels, drinking water). In May 2007, the Taskforce published the findings of a project on best practice in SCP in African countries.

The eco-labelling initiative: Implementation of the eco-labelling project began in 2007. The overall objective of the project is to expand market access for African products in regional and international markets by improving the environmental profiles of African products and establishing a mechanism that promotes their marketability, thereby contributing to the NEPAD objective of promoting African exports. The first phase entailed an overview of the ongoing activities on eco-labelling in Africa in order to develop an appropriate strategy that could harness the synergies, identify the main opportunities and challenges, bring together the key partners and set up a work plan. In this context, two studies on eco-labelling activities at regional and international levels were commissioned. The draft study reports were reviewed at a regional expert group meeting jointly facilitated by UNEP, UNECA and AUC in collaboration with the Marrakesh Taskforce on Cooperation with Africa, held in June 2007.

The meeting concluded that the development of an African eco-labelling scheme would make significant contributions to expanding market access to African products in a global market that has increasingly become conscious of environmental considerations, at the same time enhancing the region's ability to achieve the MDGs. In this regard, the meeting called for a regional consultative process under the leadership and guidance of AUC, UNEP and UNECA for the further development and implementation of the mechanism. As a follow-up to the meeting, discussions and consultations were held between AUC, UNECA UNEP and the Taskforce. Agreements were reached on securing political endorsement, substantive development, coordination and mobilizing resources. The findings of the consultations were presented as an information note to the Council of African Ministers of Industries (CAMI) in September 2007. A ministerial decision on the proposed regional eco-labelling programme was sought from and endorsed by the Council of African Ministers of Trade (CAMT).

(ii) Challenges and constraints

Within the context of Africa's regional development, the concepts of sustainable Consumption and Production are relatively new and therefore have yet to gain visibility in sustainable development policies, programmes and discourse. The concepts are gradually gaining acceptance in the region, but there is doubtless a long way to go before they are integrated in development management practices. Francophone African countries in West and Central Africa show very little institutional capacity in sustainable production owing largely to the absence of National Cleaner Production Centres (NCPCs). Thus far, sustainable production in Africa has primarily addressed production efficiency, with only limited attention being given to product design and use efficiency. The regional capacity for promoting Sustainable Consumption (SC) is far less developed than that for Sustainable Production (SP). There are no strategies or policy frameworks to promote SC at the national level in accordance with the United Nations Guidelines on Consumer Protection. This is because of the wide range of different consumption styles and patterns that exist side by side, including within countries. The region is still dominated by people living in poverty, and the priority of governments is empowering people to meet their basic needs.

Furthermore, SC is a relatively new concept and, where it exists, consumer activism is still focused on prices, quality and consumer safety, so that SC is not yet mainstreamed in the consumer movement. Lack of awareness, weak legislation and policies, poor education, inadequate research and development capacities, and consumer traditions, are important constraints to SCP in Africa. Awareness is needed to support new policies, legislation, education, research, and consumer lifestyles. Several NCPCs have stressed that weak enforcement of environmental laws leads to weak demand for the services of Centres, which is a key factor in the financial sustainability of NCPCs. Lack of stakeholder cooperation and poor relations with authorities are also constraints to SCP. The vast majority of companies in the region pay little or no attention to improving their sustainability records, while government agencies are often reluctant or incapable of engaging in partnership with industry to promote SCP. There is probably a need for more integration of NCPC activities with those of appropriate government agencies.

(iii) Lessons learned and way forward

Despite the great effort and resources deployed by the NCPCs, only a small part of industry has adopted SP. It is impossible to help each individual company to understand the benefits of sustainable production. Instead of focusing on the supply side, it is therefore necessary to focus on the demand side, creating demand for SCP. Such demand is created when legislation is enforced, suitable economic incentives are established, and the efficiency improvements offered by SCP provide a competitive edge. Strategies to enable NCPCs to play a greater role in scaling up small, localized impacts are desirable. There are few partnerships between NCPCs and national bodies, and other stakeholders are not taking the lead to promote SCP activities. Important stakeholders such as financing institutions, industry associations and government industry departments need to be more actively involved. The areas of focus of NCPCs need to expand beyond industries into regional development programmes. Tools to support or promote SC need to be strengthened and integrated with production activities. Systemic approaches such as Life Cycle Analysis (LCA) and green procurement are either nonexistent or still in their infancy and need to be further developed. Public procurement, by both central and local government, accounts for a large proportion of national expenditure and this purchasing power can influence the market. By implementing sustainable procurement – i.e. procurement that is environmentally and socially responsible – the public sector could encourage the production of sustainable products and enhance corporate social responsibility.

SCP requires an effort to create a strategic-level coordination mechanism in which issues and challenges related both to consumption and production and their interaction with the environment could be addressed in a more holistic manner. Tools such as cleaner production, LCA, product-service systems, eco-design, sustainable procurement, United Nations Guidelines for consumer protection, eco-labels, advertising for sustainable consumption, education and awareness-raising activities, etc., must all be adopted and coordinated to support SCP. Political will and commitment are essential to the effective implementation of the African 10-YFP. The high-level launch of the Programme is indeed commendable. In this regard, the leadership and guidance provided by the AU Commission, UNECA and UNEP in the further development and implementation of the Programme will need to be maintained, if not enhanced. In addition to regional cooperation, international cooperation is important in ensuring Programme implementation and leapfrogging towards SCP. In this regard, the region's cooperation with development agencies, such as that of the German Government, should be fostered.

(g) Sustainable tourism development

Sustainable tourism has a poverty-reducing dimension. It is in this connection that the United Nations World Tourism Organization (UNWTO) and the United Nations Conference on Trade and Development (UNCTAD) launched the Sustainable Tourism-Eliminating Poverty (ST-EP) initiative at WSSD. aimed at linking the development of sustainable tourism to the cause of eliminating poverty. The ST-EP Programme targets least developed countries, especially those in the region. Its main objective is to contribute to poverty reduction through the establishment of community-based tourism development projects that respect the environment and benefit the most disadvantaged populations.

The Africa region has an emerging and flourishing tourism industry, with international visitors growing by some seven per cent over the last ten years and total tourism expenditure amounting to more than US$ 40 billion in 2010 (UNWTO, 2010). Tourism has the potential to create employment opportunities and earn foreign exchange in any economy and is also a means of enhancing a country's infrastructural facilities, as well as promoting cooperation and understanding among people all over the world. Tourism has become a means by which many countries improve their income base and at the same time showcase their traditional heritage (Olorumfemi and Raheem, 2008). Tourism in the region is a means of enhancing economic growth and development (Kester, 2003), as well as projecting the image of the region to the outside world. A recent major boost in tourism for the region came with the successful hosting of the FIFA World Cup by South Africa in 2010. Over the past decade the contribution of the tourism industry to GDP and exports in many countries in the region has been improving (UNWTO, 2010).

According to UNWTO (2010), Africa's tourist arrivals grew from 37 million in 2003 to 63 million in 2010, and arrivals in the region continued to grow at a higher rate than overall arrivals in the world in 2010. In addition, according to China Tourism Academy, the region received 730,000 visitors from China in 2010, making it the smallest but fastest growing regional destination with a growth rate of 90 per cent in comparison to 2009. The total contribution of travel and tourism to employment, including jobs indirectly supported by the industry, is forecast to rise by 2.5 per cent per year from 2,167,000 jobs (12.6 per cent of total employment) in 2011 to 2,764,000 jobs (13.7 per cent) by 2021 (World Travel and Tourism Council). Between 1990 and 2011 there was a significant increase in the total contribution of travel and tourism in the region.

Over the period, the total contribution rose and was higher in North Africa than sub-Saharan Africa. The total contribution of travel and tourism to employment increased in 37 of the 41 countries for which data were available. The contribution fell in Nigeria, Congo and Gabon, while it remained unchanged in Chad. In 2011, the highest share (56.4 per cent) of travel and tourism in employment was observed in Seychelles, followed by Cape Verde (39.5 per cent), Mauritius (29.7 per cent), and Namibia (26.6 per cent), while the least was the Democratic Republic of the Congo (1.6 per cent), followed by Congo (1.7 per cent), and Nigeria (1.9 per cent). On the other hand, the highest positive change in percentage points occurred in Cape Verde (35.3 per cent), followed by Namibia (23.2 per cent). According to the World Travel and Tourism Council (2011), the travel and tourism industry is expected to be one of the world's fastest growing sectors and, at a time of post-crisis global recovery, the industry is in a vantage position to propel sustainable growth globally. It will require an enabling policy and governance environment for this potential to be realized, however.

Box 11: Recent facts about African tourism

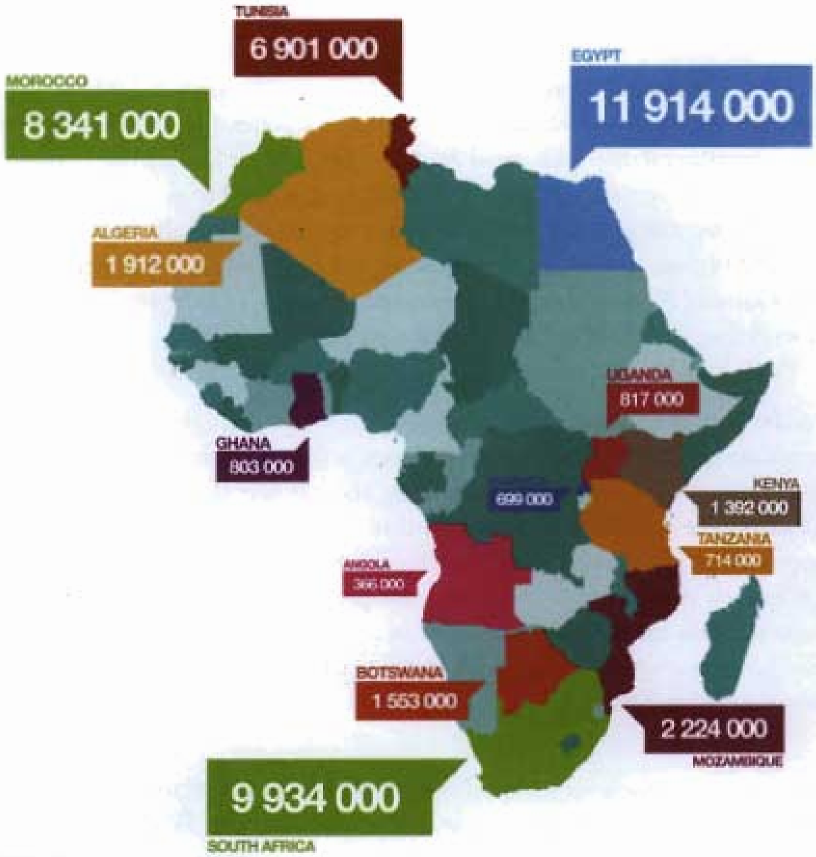
- In 2009, Africa was the only **regional destination to record** growth in tourism arrivals. In 2010, arrivals to Africa continued to grow at a higher rate than overall arrivals in the rest of the world;
- The top five African destinations for Asian tourists in 2009 were South Africa, Nigeria, Egypt, Mauritius and Kenya (China Tourism Academy);
- The top five African countries for direct employment in the tourism industry in 2010 were Seychelles, Mauritius, Cape Verde, Tunisia and Morocco;
- International tourism receipts in Africa totalled US$ 40 billion in 2009;
- In 2009, Mozambique, Kenya and Ghana reported double-digit growth in arrivals. Namibia, Malawi and Reunion also showed strong growth rates in arrivals; and
- Mauritius, Madagascar, Seychelles and South Africa all reported growth in arrivals in 2010.

Source: UNWTO (2010).

(i) Concrete actions taken and progress made

Under the NEPAD Programme, the Africa region has identified tourism as an important vehicle for responding to some of the present development challenges facing the region. The 41st meeting of UNWTO's Commission for Africa (CAF) in 2004 approved the NEPAD Tourism Action Plan. A main objective of the Plan is to provide an engine for growth and integration, and to contribute to poverty eradication. Most African governments have now included tourism in their national development strategies.

Fig. 4: Tourists in Africa



Source: www.afrographique.tumblr.com, accessed in October 2011.
African Statistical Yearbook, 2011

The Global Code of Ethics for Tourism was adopted on 1 October 1999 at the General Assembly of the UNWTO. The Code is a set of basic principles whose purpose is to guide tourism development and serve as a frame of reference for the different stakeholders in the tourism sector, with the objective of minimizing the negative impact of tourism on the environment and cultural heritage, while maximizing the benefits of tourism in promoting sustainable development. In 2001, the UNWTO General Assembly adopted Part I of its Protocol of Implementation, which created the World Committee on Tourism Ethics, a body responsible for interpreting, applying and evaluating the provisions of the Global Code of Ethics for Tourism. Many African countries have adopted the Code and are reporting on implementation progress.

Following the establishment of ST-EP, UNWTO organized seven regional training seminars on tourism and poverty reduction in 2004 and 2005 in order to build capacities among public officials in developing countries; three of the seminars took place in Africa: Benin, The United Republic of Tanzania and Mali. Project identification missions have been conducted in Ethiopia, Cameroon, Mali and Zambia. Effective project implementation has started in Cameroon and Ethiopia (UNWTO, 2006a). Furthermore, UNWTO, together with UNEP, has produced a set of policy guidelines and tools to help governments, particularly at the local level, to promote sustainable tourism.

In Cape Town in 2002, stakeholders in the tourism industry, including 20 countries in the region, issued a declaration on responsible tourism, referring to major sustainable development milestones, while UNWTO launched the specific programme for the promotion of tourism development in SSA in 2003. The programme has six major components: economic knowledge of African tourism; application of the Global Code of Ethics for Tourism; development of ecotourism and nature parks; mastery and application of new information technologies; adaptation of air transport conditions to the needs of African tourism; and enhancement of the image of African destinations.

One issue that emerged prominently from the World Ecotourism Summit of 2002 was that the natural and cultural heritage is a very rich and valuable resource for countries and communities throughout the world, although it is a fragile resource that could easily be damaged or lost without careful planning and management. The Summit recognized the need to build the capacity of those engaged in ecotourism and protected area management, and provide technical advice and support in the field. In an effort to meet those needs, UNWTO organized seminars on Ecotourism in National Parks and Protected areas in Rwanda (2003) and Guinea (2004) within the framework of UNWTO's Special Programme for Africa. The third regional workshop was held in Gabon in January 2007.

Many efforts are under way to increase understanding of how tourism can contribute to poverty reduction and how to translate this understanding into concrete action. The objectives of these efforts include increased tourism arrivals, more out-of-pocket spending, and a bigger share of the tourist economy benefiting the poor. Realizing the benefits of Pro-Poor Tourism (PPT), countries have started adopting policies that unlock opportunities for the poor within tourism. A case study conducted in the Gambia demonstrates how partnerships at the local level between the private sector, government and poor producers can significantly raise incomes for the informal sector in resorts. Another case study conducted in South Africa demonstrates how government policy can encourage the private sector to adopt poverty reduction practices and monitor and report the results.

Community-Based Tourism Associations have also been formed in major tourist destinations in Africa, such as Namibia and Uganda. However, other case studies conducted in Ethiopia, the Gambia, and Tunisia, demonstrated that pro-poor benefits accruing from tourism ventures depend on how the tourism economy is structured. In order to help tourism companies to implement local linkages and partnerships and enhance local impact, a Pro-Poor Tourism Tools and Tips Project has been launched in Southern Africa, and training and research in the promotion of sustainable tourism in Africa are being facilitated by institutions, including the International Centre for Responsible Tourism, a postgraduate research centre based at the University of Greenwich.

(ii) Challenges and constraints

The development of sustainable tourism is not without challenges and constraints. Prominent among these are political instability, poor internal security, wars and terrorist attacks, which have in recent years impacted negatively on the tourism industry globally and in the region. Reducing leakages and maximizing linkages to the local economy and to national development priorities are also major challenges.

Many countries face a number of constraints related to low skills levels, a limited entrepreneurial culture, little investment in infrastructure, facilities and quality provision, and limited benefits spreading to the wider economy. There is a need to ensure effective marketplace value, quality of products development, and meaningful community-private-public partnerships. Mass tourism is not yet genuinely involved in poverty reduction and sustainability initiatives. More often than not, involvement is more a result of brand and risk management, led by investor and stakeholder agendas, usually acting on eco-saving, social actions, and the result of formalized company-wide standards and audits, rather than genuine belief in sustainability.

The tourism industry is still very fragmented, and coordination is required, particularly for small and microtourism firms. Traditionally, the focus of national governments has been at macro level (international promotion, attracting investors for major hotel and resort developments, national and regional master planning). Regulations, economic incentives, fiscal measures, resources and institutions to promote and disseminate good practices and, in general, the policy space for tourism to respond to sustainability issues are in most cases inadequate, if not entirely lacking. Many pilot projects aimed at demonstrating the benefits of sustainable tourism are donor-funded. The challenge is to institute appropriate financing mechanisms that ensure the sustainability and replicability of projects.

(iii) Lessons learned and way forward

There are no defined processes by which different types of tourism generate benefits to the poor. Available data illustrate quite clearly that what matters is not the type or scale of tourism, but how the tourism economy is structured, how supply chains work, how far linkages extend into different parts of the local economy, and how tourists spend their money when they arrive. In other words, there is a great deal that governments can do to influence flows to the poor, whatever type of tourism they have. All types of tourism can and should be used to alleviate poverty. In other words, it is not only community-based tourism and small firms that can contribute to poverty alleviation, but also, and particularly, mass tourism operations can have a significant impact. In other words, sustainable tourism is not a discrete or special form of tourism. Rather, all forms of tourism should strive to be sustainable. Community tourism is most successful when the wider policy framework in the country is conducive. Participation of key stakeholders from public, private and voluntary sectors with interests in tourism are critical. The criteria for site selection should be developed in consultation with stakeholders. On-site training in local languages maximizes participation, particularly among marginalized groups. Adequate time should be allowed for the product to meet standards before launching it to the public. Often, small, medium and micro enterprises (SMMEs) learn a lot from their clients and competitors, and a good way to support SMMEs, is by linking them with clients (to obtain feedback and advice), and establishing a network of SMMEs (to exchange experiences and jointly market their products). SMMEs have a tendency to sell more of an existing product to an existing market. This is a low-risk strategy, but also a strategy that often has low profit margins. SMMEs that are more innovative by selling a new product to an existing market can be far more successful.

The demonstration of PPT Pilots is significant to current discussions about how exactly the private sector can make a greater contribution to the MDGs. It reinforces the argument that companies need to move beyond philanthropic corporate social responsibility (CSR) and find ways to harness their core competencies for development gain. In the tourism sector, sharing 'business DNA' with local enterprises, increasing local entrepreneur access to the tourism market, and using their procurement power to support local suppliers are invaluable ways for businesses to utilize their core competencies. Because tourism companies and operations are smaller (than, say mining companies), the initial transaction costs of setting up linkages are proportionately higher. Therefore, a destination-wide approach becomes important in order to achieve economies of scale, and/or there is a need for subsidized provision of public goods and reduction of market failures that reduce the transaction costs for companies of engaging with SMMEs.

Bringing SMMEs into the supply chain is a key area of potential in tourism, as in other sectors, particularly in provision of services. However, other kinds of linkages also have high potential in the tourism sector, particularly, legal partnerships with local people to share equity or generate commercial returns on their natural assets, and downstream linkages that stimulate local tourism services, such as cultural and heritage products.

Sustainable management of tourism must see the sector as an integral component of community development with a need for legal frameworks for pro-poor tourism, sustainable development, poverty eradication and capacity development. It is desirable to have clear strategies on how to ensure that tourism benefits local communities through developing community infrastructure, building skills and training local residents, promoting fair trade practices and effective policies. Effective management of cultural heritage is also needed through protecting and promoting cultural heritage, developing guidelines for tourists, establishing codes of conduct and preserving historical artefacts and sites. Tourism should be viewed as a vehicle for ensuring environmental sustainability by integrating community-based resources management, greening as a viable option, reducing pollution and protecting the ecosystem. These can address tourism challenges in the region's coastal zones, mountains, wildlife parks, urban environments, cultural sites, unique ecological sites and small islands.

(b) *Sustainable industrial development*

Africa lags behind all other regions in industrial output, which accounts for a mere three per cent of total gross output and less than one per cent of total manufacturing output (UNIDO, 2010). It is challenged by a low value chain resulting from local production capacities, quality of workforce, poor infrastructure, a less propitious business climate and inadequate investment, among other factors. In 2009 the manufacturing value added of major industrial countries fell by ten per cent, while for developing countries the decline was 2.5 per cent. Two developing economies, China and India, maintained high growth rates during the entire period of the 2008-2009 financial crises. As a result, China has climbed up to second position in the world, after the US, as the largest producer of manufactured outputs. India and Brazil ranked 9th and 10th, respectively, among the top 10 world manufacturers (UNIDO, 2010).

The share of manufacturing output in GDP in the region rose from a low of 6.3 per cent in 1970 and peaked at 15.3 per cent in 1990 (UNIDO/UNCTAD, 2011). Since then, there has been a significant decline in the contribution of manufacturing to GDP. In particular, the share of manufacturing in GDP fell from 15.3 per cent in 1990 to 12.8 per cent in 2000 and 10.5 per cent in 2008. This decline reflects the situation across all the subregions. In East Africa, the share of manufacturing in GDP fell from 13.4 per cent in 1990 to 9.7 per cent in 2008. In West Africa it fell from 13.1 per cent to five per cent over the same period, while in Southern Africa, it fell from 22.9 per cent to 18.2 per cent. In North Africa, it declined from 13.4 per cent to 10.7 per cent (UNIDO/UNCTAD, 2011). The share of the region in global manufacturing value added fell from 1.2 per cent in 2000 to 1.1 per cent in 2008. This contrasts sharply with the situation in developing Asia, where it rose from 13 per cent to 25 per cent. While the region's share of global manufacturing exports rose slightly from 1 per cent in 2000 to 1.3 per cent in 2008, in low- and middle-income countries in East Asia and the Pacific it grew from 9.5 per cent in 2000 to 16 per cent in 2008.

These facts are indications that African countries have yet to take full advantage of the opportunities for growth and development offered by manufacturing. They also suggest that the region continues to be marginalized in global manufacturing trade and industrial development. Manufacturing in the region is small compared to other developing regions and has been falling as a share of both GDP and exports. In 2000, manufacturing accounted for 12.8 per cent of GDP and by 2008 had fallen to 10.5 per cent. Manufacturing exports represent a relatively low percentage of total African exports and the share has declined over the years. While the share of manufactures in Africa's exports was 43 per cent in 2000, it fell to 39 per cent in 2008. The share of manufacturing exports in Africa's total exports is also low compared to other developing regions, such as low- and middle-income countries in East Asia and the Pacific, where it stood at 89 per cent, low- and middle-income countries in Latin America (61 per cent), and South Asia (85 per cent).

In recent years, however, the region has made progress in boosting medium and high technology manufactures. The share of medium and high technology (MHT) activities in total market value added (MVA) increased from 25 per cent in 2000 to 29 per cent in 2008, while for the same period, the share of medium and high technology exports in total manufacturing exports rose from 23 per cent to 33 per cent. The growing share of medium and high technology activities in both African MVA and manufacturing exports is important because technology-intensive manufacturing sectors grow faster, have greater learning prospects, and more spill-over effects on the rest of the economy. Furthermore, they generate higher value added and impose higher entry barriers. In contrast, simple sectors such as resource-based (RB) and low technology (LT) manufacturing generate lower and less sustainable margins as competition is much tougher. These simple sectors generally do not need a strong human capital base and have been the main entry points in industry by most developing countries (UNIDO, 2009). Despite the recent progress, it should be noted that the shares of medium and high technology activities in both Africa's MVA and manufacturing exports are still low compared to those of Asia and Latin America.[14]

14 UNIDO/UNCTAD, Economic Development in Africa, 2011 Report: Fostering Industrial Development in Africa in the New Global Environment.

WSSD called for the contribution of industrial development to poverty eradication and sustainable natural resource management to be strengthened. In its Africa chapter, the JPOI enjoins the international community to enhance the industrial productivity, diversity and competitiveness of the region's countries through a combination of financial and technological support for the development of key infrastructure, access to technology, networking of research centres, adding value to export products, skills development and enhancing market access in support of sustainable development. These support NEPAD objectives on manufacturing, which include increasing the production and improving the competitiveness and diversification of the domestic private sector, especially in the agro-industrial, mining and manufacturing subsectors, with potential for exports and employment creation.

(i) Concrete action taken and progress made

<u>Regional initiatives</u>

In July 2004, the AU General Assembly endorsed the Africa Productive Capacity Initiative (APCI) as the NEPAD Sustainable Industrial Development Strategy. In particular, it requested that AUC and the then NEPAD Secretariat (now NEPAD Planning and Coordinating Agency) provide assistance to Member States in the implementation of the strategy through the development of concrete action plans. The implementation phase of APCI began with the convening of a subregional meeting in West Africa in November 2004. An action plan was developed for the subregion in line with the priority sectors set out in APCI. Planning for other subregions has been ongoing with the objective of ensuring that all industrial road maps for subregions are developed, and UNIDO is providing technical assistance through the APCI, which aims to increase MVA in selected industrial sectors identified in Africa's five subregions. In December 2006, experts' group meetings were convened in South Africa and Cameroon under the auspices of UNIDO, NEPAD, AUC and UNECA to facilitate regional integration and identify a strategy for improving industrial performance among members of SADC and the Economic Community of Central African States (CEMAC).

The African Productive Capacity Facility (APCF) has been established as a financial mechanism to support the APCI. UNIDO has provided seed money to the Facility to start implementation. Cameroon and Nigeria contributed to the Facility and Egypt offered to provide technical expertise. UNIDO also facilitated the signing of a memorandum of understanding between the Islamic Development Bank (IDB) and selected West African countries in order to open credit facilities for specific sectors (United Nations, 2007).

<u>National actions</u>

Since 1998, UNIDO has been using the concept of integrated programmes as a means of strengthening its response to sustainable industrial development needs and focusing its assistance at the country level. In 1999 and 2000, governments confirmed that their comparative advantages lay in diversifying their economies by processing agricultural products, primarily textiles/garments, leather/leather products and food. This has become the core of the UNIDO strategy in each country, emphasizing the need to improve quality standards, identify new market channels and increase product range. UNIDO has assisted many countries in Africa in developing and implementing programmes aimed at improving the competitiveness of selected industries and, wherever possible, identifying new market opportunities, thus opening the door to the global economy.

In the leather industry, UNIDO has assisted countries in tackling critical environmental problems by assisting companies in installing or upgrading effluent treatment plants and providing operator training at the Nairobi Leather Development Centre. Rural industry has been supported by focusing on improving technologies through the introduction of modern shop-floor management systems, with an emphasis on minimizing waste and improving hygiene in plants. In addition, in order to ensure sustainability, appropriate technical staff have been trained. UNIDO activities in the development of small- and medium-scale enterprises are carried out for the three main economic levels, which are policy formulation and implementation; institutional capacity-building; and improving entrepreneurial skills at the enterprise level. Countries have developed policies for investment promotion and for attracting Foreign Direct Investment (FDI), including the launching of UNIDO-Africa Investment Promotion Network and various other national and subregional investment promotion efforts. Activities in Burkina Faso, Côte d'Ivoire, Ethiopia, Ghana, Guinea, Senegal, Uganda and the United Republic of The United Republic of Tanzania address the gender imbalance by including assistance to women entrepreneurs.

UNIDO and UNEP, supported by UNDP and bilateral donors, are the agencies most actively promoting cleaner production in Africa. Since 1994, 27 National Cleaner Production Centres (NCPCs) have been established worldwide, of which ten are in Africa. These are Egypt, Ethiopia, Kenya, Morocco, Mozambique, South Africa, The United Republic of Tanzania, Tunisia, Uganda, and Zimbabwe. Additional centres are in the process of being established and many countries, including countries in Africa, have requested to have NCPCs established. Metrology standards, testing and quality institutions provide complementary support to the introduction of such standards by allowing for proper control of product, health and environmental quality, and by providing the means for certification against the standards. Such institutions also promote best practices and encourage the development of new products through Research and Development (R&D). Projects to strengthen such institutions in Burundi, Ethiopia, Nigeria and Uganda, among others, are under way. Promotion of linkages between R&D institutions and industry (e.g. the Leather and Leather Product Training Institute in Ethiopia) have also helped the testing, promotion and skills development related to cleaner and more productive production. Countries have also established agro-processing and micro and small-scale enterprises (MSMEs), and are gradually facilitating access to finance, technology transfer and capacity development for growth-oriented and competitive MSMEs with increased focus on women.

(ii) Challenges and constraints

Countries in the African region still grapple with numerous challenges in sustainable industrial development. These consist of a weak policy environment, limited access to the rapid growth in new technologies, inadequate local awareness of environmental issues and a predominantly unskilled labour force, in a situation where sustainable industrialization requires higher levels of skills. Countries in the region are latecomers to industrial development and, as such, face additional challenges, including those that emanate from the pattern of economic transformation and an increasingly competitive environment, which nonetheless provides a great deal of learning opportunities. The region lacks adequate capacity, and is faced with a slowly improving business and policy environment, financial and other support systems for growth, structural change and economic diversification. Small-scale and informal enterprises dominate the private sector and the quality and standards of local products are on the low side. There is limited research and development, innovation, diversification and technology diffusion. Limited skills hamper the exploitation of the potential of knowledge-based industries. Poor infrastructure, especially transport, energy and water, make the transition to sustainable industrialization more difficult.

Much of the region has yet to benefit from opportunities provided by globalization, such as greater trade liberalization, transfer of capital, technology and labour. Environmental issues in world trade remain a challenge. Rather, the region is being constrained by capital flight and net outflows of highly skilled professionals. Appropriate industrial development strategies are lacking to facilitate and maximize the integration of large-scale industries, which are mainly concentrated in the extractive sector (e.g. oil, gas and minerals) with other sectors of local economies. Inadequate harmonization of laws, regulations, codes and standards at the national and subregional levels limits factor flows (financial, human and technical resources), which could help realize economies of scale, establish intraregional synergies and enhance competitiveness.

The region also lacks a critical mass of companies and institutions willing to cooperate, network and share industrial development knowledge and information in pursuit of sustainable development.

(iii) Lessons learned and way forward

It is absolutely clear that the region's industry has not experienced significant growth over the past two decades. Industrial productivity, moreover, is low and the gap in productivity between African industrial firms and those of the rest of the world has steadily widened. Nevertheless, there is potential for growth as can be seen from the few successful countries. The first step towards sustainable industrialization is to improve productivity and investment. Any strategy to revive industrial growth in the region will need to focus on structural issues, prominent amongst which are domestic capacity-building, strengthening domestic factor markets, and the supply of public goods. Exposing firms to international competition and increasing domestic competition, as well as improving access to new technologies and investments in human capital should improve efficiency and thus productivity within the region's industry. However, this must be supported by necessary public goods (particularly investment in infrastructure), support institutions (trade facilitation, credit, technology, establishment of standards and certification schemes), as well as incentive structures that are conducive to industrial growth. These should be strategic, taking into consideration the promotion of industries that have high growth potential, strong linkages within national economies, able to absorb an increasing amount of labour, and also promote the adoption of environmentally sustainable practices.

In order to encourage greater investment, particularly private investment and foreign direct investment (FDI), certain constraints, ranging from high investor risk to high taxes and tariffs on investment goods to corruption, macroeconomic instability and over-valued exchange rates, need to be addressed. Capital market development should also be accorded serious attention. Sustainability will require not only a focus on accelerating industrialization, but also initiating a shift from current production processes to less highly polluting, resource-wasting industries and production processes. It requires investment in rapidly evolving technology that saves on inputs and is more efficient in energy use, based on renewable resources and generates less waste along the life cycle of a product.

There is a need to ensure that chemicals are produced, transported, used and disposed of throughout their life cycle within a sustainable development context that is protective of human health and the environment and includes, among other things, compliance with the provisions of relevant international environmental conventions and national environmental laws and policy instruments. There is also a need to promote global cooperation and partnerships for the development and implementation of cleaner production processes and adoption of new and safer technologies.

Values consistent with corporate social and environmental responsibility, such as those embodied in the Global Compact, need to be adopted and implemented and an ISO standard on corporate social responsibility needs to be explored.

(i) Energy for sustainable development

The African region has an enviable endowment of energy resources. In 2004, its proven oil, gas and coal reserves were estimated at 9.4, 7.9 and 5.54 per cent of world totals, respectively. The region has 13 per cent of the world's hydropower potential. However, with 13.1 per cent of total world population, Africa consumes only 5.5 per cent of world energy, and generates only 3.1 per cent of world electricity. It lags behind all other regions in terms of energy use, with a per capita energy consumption of 0.5 Tonnes of Oil Equivalent (TOE), as compared with the world average of 1.2 TOE per capita.

NEPAD recognizes the critical role that energy plays in the development process, first as a domestic necessity, but also as a factor of production whose cost directly affects the prices of other goods and services. The limited modern energy production and consumption therefore critically impairs socio-economic development in Africa. High levels of income per capita tend to be associated with higher levels of industrialization and there is a link between energy consumption and Gross National Product (GNP), and thus economic development.

WSSD called on countries to diversify energy supply and substantially increase the global share of renewable energy sources; improve access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services and resources; remove market distortions; establish domestic programmes for energy efficiency and accelerate the development and dissemination of energy efficiency and energy conservation technologies. In its Africa chapter, the JPOI calls on the international community, among other things, to establish and promote programmes, partnerships and initiatives to support the region's efforts to implement NEPAD objectives on energy, which seek to secure access for at least 35 per cent of the African population, especially in rural areas, within 20 years. It also calls for support to implement energy initiatives, including the promotion of clean and renewable energy, and to improve energy efficiency and access to advanced energy technologies, including cleaner fossil fuel technologies.

(i) Concrete action taken and progress made

On 24 July 2010, AU, NEPAD and AfDB launched a reinvigorated Programme for Infrastructure Development in Africa (PIDA) on the sidelines of the 15th AU Heads of State and Government Summit. PIDA is a joint initiative of AUC, NEPAD Agency and the AfDB Group. PIDA's objective is to merge all continental infrastructure initiatives into a single coherent programme for the entire continent. The programme merges the NEPAD Short-Term Action Plan, the NEPAD Medium-to-Long-Term Strategic Framework (MLTSF) and the AU Infrastructure Master Plan Initiative. Through its regional integration department (ONRI), AfDB is PIDA's executive agency. AfDB hosted an important PIDA workshop from 8 – 9 April 2010 in Tunis, one of the last steps preceding the official launch. PIDA provides a vision, strategic framework and programme to be implemented up to 2030. Its activities focus on developing transportation, energy, information and communication technologies, as well as transboundary water basins. Infrastructure and regional integration are key priorities of the AfDB 2008-2012 medium-term strategy. The infrastructure sector alone accounts for more than half of AfDB's operations, which exceeded US$ 6 billion in 2009. In 2011, the Institutional Architecture for Infrastructure Development in Africa (IAIDA) was set up to provide an implementation and monitoring framework for PIDA. NPCA oversees IAIDA.

The AfDB infrastructure project preparation facility has provided funding for the preparation of several regional projects, which include the Kenya-Uganda oil pipeline; Benin-Togo-Ghana power interconnection project; and Zambia-The United Republic of Tanzania-Kenya electricity interconnection project. Additionally, the Bank has approved financing for the Ethiopia-Djibouti Power Interconnection project, and for a hydropower project and transmission feasibility study for the Gambia River Basin Development Organization (OMVG). Progress has been made in the construction of the West Africa Gas pipeline, which is expected to supply clean and affordable energy from Nigeria to Benin, Togo and Ghana. In December 2004, Chevron Texaco, Nigeria National Petroleum Corporation, Shell and Takoradi Power Company (Volta River Authority) committed more than US$ 500 million towards the construction of the pipeline. NEPAD Agency and AfDB are in regular consultation with the Democratic Republic of the Congo (DRC) to expedite the Greater Inga Integrator Study, which aims to assess the feasibility of developing the hydropower potential at Grand Inga in order to supply the subregions of Africa and transmit the surplus power to neighbouring continents.

The development of the DRC hydropower project is at present in its third phase and the country expects production of electricity by 2017 or 2018. By September 2011 a pre-feasibility study on the 4,300-5,000 mw Inga 3 Plant, as well as the separate 40,000mw Grand Inga Project, was expected to be completed. In Kenya, the drive for clean energy is gaining momentum as the private sector is investing to bring ethanol-based electricity into the energy market. By mid-2011 ethanol-powered cells were expected to be on the market. Private investment in the development of clean energy is also promising in South Africa. The Belgian Green Energy Company, Electrawinds, has started to develop South Africa's first commercial wind energy project in the harbour of Coega, near Port Elizabeth. The turbine has been built in the Industrial Development Zone (IDZ) in Coega, a new harbour area on the Indian Ocean. It is a VESTAS V90 with a 95 metre tower and a 90 metre rotor diameter. The turbine has a capacity of 1.8 megawatts, which translates into an annual yield of 5,700,000 kWh and equals the annual electricity consumption of 1,700 families (based on an average annual consumption of 3,500 kWh). Ethiopia is set to build a major dam on the Nile River in order to generate hydroelectricity. The country aims to generate 15,000 megawatts of power within the next ten years.

The AFREA Programme is managed by the Energy Unit of the World Bank (AFTEG) and supported by the Kingdom of the Netherlands through the Energy Sector Management Assistance Programme (ESMAP) Clean Energy Investment Framework Multi-Donor Trust Fund. AFREA provides pre-investment support for the development of renewable energy in sub-Saharan Africa. The activities it supports include: capacity-building; technical assistance; advisory services; economic and social studies that directly support and/or create enabling conditions for increased renewable energy investment and expanding access to modern energy; and mainstreaming good practice in gender sensitivity analysis. Other activities focus on workshops and training, dissemination of information, such as case studies, best practices and lessons learned, to public and private organizations. AFREA has funded the Africa Electrification Initiative (AEI), which aims to create and sustain a living body of practical knowledge and a network of sub-Saharan Africa practitioners in the area of design and implementation of rural, peri-urban and urban on-grid and off-grid electrification programmes. Many African government and utility officials do not have reliable, systematic access to operational documents that can help them in their day-to-day operational work. In order to provide them with this much needed documentation, the AEI team and PPP in Infrastructure Resource Centre for Contracts, Laws and Regulation (PPPIRC), created an online archive of operational documents for practitioners. The archive provides convenient access to practical documents that can have immediate operational value for African officials responsible for promoting different forms of electrification.

During the Russian presidency of the G8, the Government of Russia took the initiative of putting energy access at the core of the G8 agenda and committed funding to support energy for small and medium size enterprises (SMEs) in sub-Saharan Africa. The Government of Russia (GOR) has asked the World Bank to manage this trust fund in close collaboration with GVEP International. The Africa Energy Unit of the World Bank has been assigned responsibility for the overall implementation of this trust fund. AFTEG partners with the Energy Sector Management Assistance Programme (EAMAP), the Public-Private Infrastructure Advisory Facility (PPIAF), the Global Environment Facility (GEF), German Technical Cooperation (GIZ), the Forum of Energy Ministers of Africa (FEMA), the Africa-Europe Energy Partnership (AEEP), the EUEI Partnership Dialogue Facility and the EU-Africa Infrastructure Trust Fund.

Significant progress has been made in the formation of regional power pools, and trade is already taking place in West and Southern Africa. Increased investment in regional interconnections and new generation capacity is needed in order fully to realize the benefits. Since the mid-1990s, external finance of Africa's power sector has averaged only around US$ 600 million per year of public assistance, plus a similar volume of private finance. More recently, Chinese, Indian and Arab sources have also emerged as significant energy financiers. Nonetheless, it is estimated that sustained investment at higher levels is required in order to double current levels of access by the year 2030. In short, transforming Africa's power infrastructure will require an additional US$ 20.9 billion a year and massive efficiency gains (see study on Africa's Infrastructure challenges (AICD)). African governments are working in cooperation with development partners to address the region's energy crisis. Recently, in the fiscal year 2010 (July 2009-June 2010), the World Bank approved 11 projects under the leadership of the Africa Energy Unit totalling US$ 4.99 billion.

Investment, reforms and awareness campaigns on efficient use of energy are showing results in Ethiopia, The United Republic of Tanzania and South Africa. The World Bank recently provided additional financing to support renewable energy projects for rural The United Republic of Tanzania. It aims to improve the quality and efficiency of the electricity service in Dar es Salaam, Arusha and Kilimanjaro, and to establish a sustainable basis for energy access expansion and renewable energy development in the country. The project is contributing towards the global environment objective of abating greenhouse emissions through the use of renewable energy in rural areas to provide electricity. Another recently approved World Bank project will support the production of stable electricity supply to South Africa, while pioneering the biggest solar and wind power plants in the developing world through the local utility, Eskom. The project's diversified financing encompasses the production of 100 megawatts of wind and 100 megawatts of solar power. This effort is expected to jumpstart the market for renewable energy in Southern Africa. The solar power project will be the biggest grid-connected solar thermal power project in any developing country, the biggest ever solar thermal project with storage, and the biggest ever central receiver-type solar power plant. The tangible success of the Ethiopia CFL exchange project led the Ethiopian government to draft a law banning the use of incandescent light bulbs. Such a law already exists in the European Union (EU) and elsewhere in developed countries but, if approved, will be the first law of its kind in a developing country. Similarly, in Uganda, the government has also raised public awareness to ways of reducing consumption in order to cut energy costs, and plans are under way to legislate on energy efficiency measures in order to support the World Bank investment. The Africa Energy Unit, through a trust-funded programme, also facilitated the introduction of a law establishing the Rural and Renewable Energy Agency (RREA) in Liberia and supported its establishment as a functioning institution.

The Energy Sector Management Assistance Programme (ESMAP) established the Clean Energy Investment Framework Multi-Donor Trust Fund (the ESMAP CEIF-MDTF) to help mobilize multi-year funding commitments from Consultative Group members. This aims to support the implementation of pre-investment activities associated with the Africa Energy Access Scale-up Programme. The first contribution toward the Programme is the Ministry of Foreign Affairs (DGIS) of The Kingdom of the Netherlands. These funds are earmarked to support AFTEG-executed analytical and advisory activities and also to provide recipient-executed technical assistance, and pre-investment grants to accelerate deployment of renewable energy systems through the Africa Renewable Energy Access Programme (AFREA). The AFREA programme is managed by the World Bank through the Africa Energy Unit (AFTEG). The activities include: capacity-building; technical assistance; advisory services; economic and social studies which directly support and/or create enabling conditions for increased renewable energy investment and expanding access to modern energy; and mainstreaming good practice in gender sensitivity analysis. Other activities focus on workshops and training, dissemination of information such as case studies, best practices and lessons learned to public and private organizations. The following major initiatives are being supported by the programme:

a. *The Africa Electrification Initiative (AEI)*: This is a three-year AFREA and German Technical Cooperation (GTZ)-supported programme launched in 2009. The initiative brings together Africans who work on energy issues to share knowledge and best practices. The first major meeting of this initiative took place in Maputo, Mozambique in June 2009, when over 170 electrification experts from 42 African countries met and shared knowledge. They included people working for electrification agencies and funds, government ministries, regulators and state, community or privately-owned utilities. The result has been a renewed drive in connecting knowledge and strategies at a regional, cross-border level. In addition, AEI and PPP in Infrastructure Resource Centre for Contracts, Laws and Regulation (PPPIRC) established an online library of operational documents. The AEI website is expected to grow to become a unique space to support the design and implementation of rural, peri-urban and urban on-grid and off-grid electrification programmes. It will also see a practitioners' private networking space, offering new ways for people to speak directly to one another about what works and what does not;
b. *The Biomass Energy Initiative for Africa (BEIA)*: This initiative seeks to identify and pilot new approaches and innovations for efficient, cleaner and sustainable usage of biomass energy in Africa, with the aim of overcoming the traditional methods and providing guidance on how to modernize biomass energy production and usage. Examples of innovative projects include small scale social biofuel production for cooking and lighting; enabling local market conditions for a new generation of cleaner and more efficient biomass cooking stoves; organizing the existing charcoal entrepreneurs as a bridge to modernization for this important African business; dem-

onstrating the viability of bioelectricity projects; and enhancing the capacity of "biomass energy leaders" in the region to advocate for biomass energy modernization. BEIA is supporting 12 biomass proposals of around US$ 150,000 each for a year of project implementation (April 2010 to March 2012). The proposals cover four themes: enabling market conditions for quality cooking stoves; modernizing the charcoal business in Africa; demonstrating the feasibility of social biofuel enterprises; and increasing local power capacity with bioelectricity;

c. *Lighting Africa:* Launched in 2007, the Lighting Africa initiative encourages the use of new technical innovations – clean, efficient and reliable energy services – such as new light-emitting diode (LED), fluorescent and solar technologies, by consumers in sub-Saharan Africa. The new lighting is portable, durable and cheaper, safer, and cleaner than lighting whose energy comes from the burning of kerosene and other fossil fuels. Already, this has placed modern lamps and flashlights in a number of households and businesses in Ghana and Kenya. The objective is to determine which modern off-grid lighting products are best adapted to the African market and what the pricing should be.

For the past two years, there has been significant progress in the off-grid lighting sector, characterized by remarkable technical strides in innovation, unique business and marketing models, consumer-friendly products and stakeholder partnerships and collaboration amongst industry, private and public sectors. All of this came together at the Lighting Africa 2010 conference held in Nairobi, Kenya in May 2010. While it may be too early to draw the lessons learned from this conference, some of its outcomes are already worth highlighting: the extent of the networking contacts made by the participants; the winners of the Lighting Africa Outstanding Products Awards 2010 and the additional products that passed the tests; the letter of intent signed by the off-grid lighting stakeholders; and the content and materials that were developed for the conference.

Other actions have included responses by the International Atomic Energy Agency (IAEA), which focus on promoting sustainable use of natural resources and increasing access to affordable energy. A project in energy assessment was launched under the African Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology (AFRA). Project activities were implemented by IAEA in partnership with NEPAD, the African Energy Commission (AEC) and UNIDO. The project aims to support AFRA members in drawing up national energy strategies and strengthening institutional capability for energy planning. In the framework of UN-Energy/Africa, UNECA and IAEA conducted a regional workshop in Ethiopia in December 2006 on integrated resource planning for energy/electricity in Africa. The objective of the workshop was to build the capacity of energy planners to effectively use integrated resource planning for mainstreaming sustainable development in the planning of investments in the electricity supply industry at the regional and national levels.

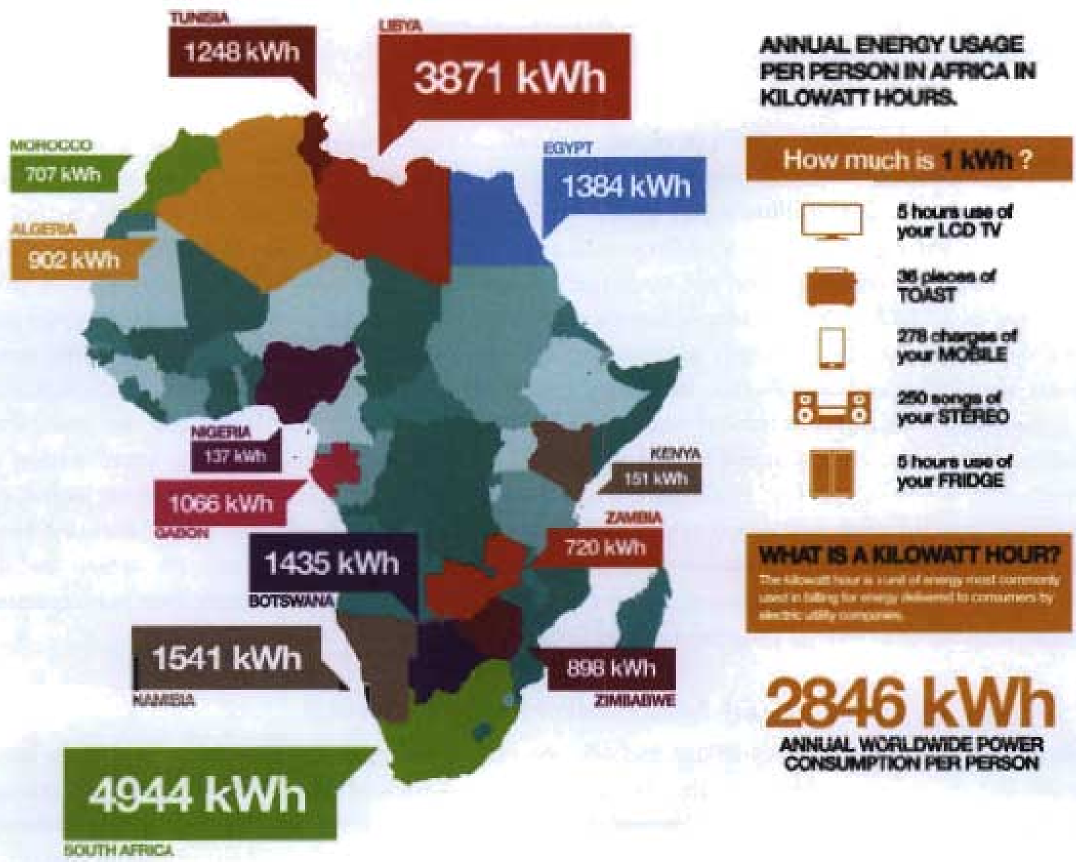
Other programmes include: the UN-Habitat Energy Scale-Up Initiative, aimed at increasing energy access in poor rural and urban areas; the UNDP / Institut de l'énergie et de l'environnement de la Francophonie programme for "capacity-building and investment in mini/micro hydropower", implemented in partnership with UNECA, UNIDO and UNEP in 11 African countries; the UNIDO energy productive use programme; the UNEP "African rural energy development project"; and regional rural electrification strategies developed in different forms by various RECs, such as ECOWAS, SADC and EAC; the development of Renewable Energy and Energy Efficiency by UNEP, UNESCO and UNIDO, among others.

Energy accessibility for poverty alleviation: In recognition of the fact that the problem of access to energy in rural Africa requires much more attention, off-grid systems based on renewable energy have been developed in rural areas in many countries and validated as an important option for increasing energy access. Progress has been made in capacity development and investment in mini-hydropower systems, with the identification of a large number of mini/micro hydropower potential sites. A subregional rural energy programme is well advanced in ECOWAS and SADC countries, with plans to harmonize national policies. Institutional and other barriers to the development of small and medium-scale energy enterprises have been identified and approaches for their removal implemented in some countries.

Changing patterns of energy consumption and production: In many countries, national capabilities on forestry services and energy agencies for wood energy planning and policy development have been enhanced. Wood energy statistics and information have been improved and promoted as tools for the promotion of sustainable wood energy systems. Furthermore, various practical actions, ranging from geographical mapping of renewable energy resources, development of energy and energy efficient service enterprises for activities aimed at identifying and removing barriers have been undertaken to increase the share of renewable energy in the energy mix.

Information sharing on cleaner energy technologies: Many network initiatives (e.g. the Global Network on Energy for Sustainable Development, the Renewable Energy and Energy Efficiency Partnership, the Global Village Energy Partnership) have contributed to enhancing knowledge and capacity on cleaner energy technology options for energy production in many countries. Additionally, functional networks for sharing information and knowledge on sustainable transport infrastructure investment, cleaner technologies and air quality management, have been established between individuals, institutions and government representatives in many countries.

Fig. 5: African power consumption



Source: www.afrographique.tumblr.com, accessed October 2011.

(ii) Challenges and constraints

In spite of the interventions, the region's infrastructure is still the most deficient and costly in the developing world; access to modern infrastructural services, particularly energy, is still largely skewed in favour of well-off households; and poverty and inequality still play a dominant role in access to and affordability of modern infrastructure services to the extent that only about a quarter of the sub-Saharan African population has access to electricity, as against half in South Asia and more than 80 per cent in Latin America, the Middle East and North Africa. There is just enough electricity generated to power one light bulb per person for three hours a day. It has been estimated that South Africa uses most electricity power per person (a total of 4,809 kwh), while Ethiopia, with less access, uses about the least, 38.4kwh. To put this in context, the average monthly consumption of a household in the region using three 60-watt light bulbs for five hours per day is 28 kwh. Excluding South Africa, the entire installed generation capacity of sub-Saharan Africa is about 28 gigawatts, which is equivalent to that of Argentina. As a result of the low generation capacity, the region is faced with a number of challenges, which include:

a. Poor reliability. The region's manufacturing enterprises experience power outages on average 56 days per year. As a result, firms lose six per cent of sales revenues; in the informal sector, where back-up generation is limited; losses can be as high as 20 per cent; and
b. High costs. Power tariffs in most parts of the developing world are in the range of US$ 0.04 to US$ 0.08 per kilowatt-hour. However, in sub-Saharan Africa the average tariff is US$ 0.13 per kilowatt-hour. In countries dependent on diesel-based systems tariffs are still higher. Given poor reliability, many firms operate their own diesel generators at two to three times the cost.

In order to combat the energy crisis, many countries have had to contract expensive diesel-fuelled emergency generation plants; in some cases, the estimated annual costs are equivalent to more than one percentage point of GDP, while the cost to the economy of load-shedding is equivalent to 2.1 per cent of GDP on average.

Without a doubt, the region's return to growth will help to renew the momentum of its effort to achieve the MDGs. Higher growth will renew investment in infrastructure and human capital as well as boost employment. For the 200 million young people without jobs in the region and the seven to ten million more who join the region's jobless workforce each year, this is good news. The Africa region's sustainable energy development challenges include inadequate policy, legal, regulatory and institutional frameworks and limited financial flow for the development and provision of sustainable energy, especially for the poor; low energy production due to largely untapped energy resource potential, particularly renewable; uneven regional availability and distribution of energy resources; underdeveloped transportation, production, transmission and distribution infrastructure, and high up-front energy investment and use costs, which constitute barriers to energy access by the urban and rural poor; low private sector participation and investment in the energy sector; inadequate access to energy in rural Africa as a result of the high cost of production, transmission and distribution; high dependence on, and inefficient use of, biomass energy sources and the associated environmental, economic and social impacts, especially on women and children; and inadequate skills and education of the rural population, which holds back their participation in the implementation of energy programmes and projects.

(iii) Lessons learned and way forward

There is a need for African policymakers and decision makers to become more aware of and more knowledgeable about emerging and sustainable energy issues. Governments should develop policies, strategies, and legal and regulatory frameworks that are conducive to an attractive national investment climate for domestic and foreign investors, as well as to integrate the specificities of the African energy context, especially in rural areas, in order to promote adequate and affordable sustainable energy services. Governments, international development partners, regional, and subregional decision makers should view the problem of access to modern energy in rural and peri-urban areas as inseparable from poverty eradication efforts and strategies and take urgent measures to address this through poverty reduction strategies and National Strategies for Sustainable Development.

There is a need to build capacity that is responsive to and inclusive of social and environmental factors in investment decisions related to energy projects. There is also a need to build institutional capacity for energy planning, analysis and modelling using specific national and regional data to inform decision-making and policy development. Governments should intensify efforts to decentralize the decision-making process for energy investment and projects, and promote more participation by local government and regional, communal, and community-based organizations. More actions should be taken in the area of interregional cooperation. Frameworks and incentives should be encouraged, developed and strengthened to promote regional integration of energy projects, programmes and systems. With the support of the international community, RECs should promote the subregional and regional energy trade as a catalyst for development in Africa in order to improve the share of renewable energy in the African energy mix. The region's governments should promote energy diversification, and remove barriers in order to allow fairer competition among all energy resources. International development partners, including the United Nations, should increase their financial and technical support to enhance implementation of the NEPAD energy initiative.

(j) Sustainable land resources management

Land is a valuable asset and lies at the heart of social, cultural, spiritual political and economic life in most of the region. Land and natural resources are key assets for economic growth and development. In fact, most economies in the region continue to rely heavily on agriculture and natural resources for a significant share of national income, food needs, and employment. In practice, land rights claimed and allocated by governments often conflict with the land tenure practices of local communities. As a result, land tenure and shelter are insecure for many Africans in both urban and rural areas. In addition, land remains extremely inequitably distributed, especially in the former settler economies of southern Africa, with the majority of rural people excluded from access to the most productive and valuable land. Urban and peri-urban lands are more dynamic, volatile and prone to disputes. Some African countries employ forced evictions, which often seriously affect vulnerable groups such as women, indigenous peoples, children and the poor. The contribution and participation of vulnerable groups are often ignored in the process of expropriation, eviction and relocation. The emphasis on title deeds and individual freehold has further eroded security of tenure for many Africans in both rural and urban areas.

Land is often the source of conflicts in the region and leads to complex challenges in managing post-conflict land rights, which are often addressed through arduous reform measures that involve redistribution, restitution, relocation, etc. If and when these are not successful, conflict inevitably breaks out again. Reliance on land as a principal source of livelihoods and a basis for economic development in Africa is likely to continue for the foreseeable future. This means that appropriate land policies need to be developed and implemented in order to enable the poor to have a better livelihood, as well as increased private investment in agriculture. In fact, the importance of land in the region is multifaceted and central to the achievement of development goals. Sound policies and effective land administration and information systems are necessary to address Africa's twin land-related natural resource economic and social development challenges, namely: (a) facilitating investment and generation of economic opportunities, and (b) guaranteeing secure land access to the rural and urban poor as a basis for improved livelihoods, food security and poverty reduction.

The JPOI objective on land is to promote and support efforts and initiatives to secure equitable access to land and clarify resource rights and responsibilities through land and tenure reform processes that respect the rule of law and are enshrined in national law, and provide access to credit for all, especially women. The chapter on Africa states that efforts and initiatives should support economic and social empowerment and poverty eradication, as well as efficient and ecologically sound utilization of land, that enable women producers to become decision makers and owners in the sector, including giving them the right to inherit land. The first pillar of NEPAD's CAADP is extending the area under sustainable land management and reliable water control systems.

(i) Concrete action taken and progress made

During the period covered by this report, an important regional initiative was the AU/AfDB/UNECA Framework to Strengthen Land Rights, Enhance Productivity and Secure Livelihoods. Taking into account the various stages and successes in policy and administrative reforms of the countries of the region, the initiative recognizes exchange of information and lessons learned, access to technical expertise and reviews of on-going processes, as key to catalyzing reforms across the continent. With the support of UN-Habitat, benchmarks and indicators on land policy and land reforms are being developed through this initiative in order to enable monitoring and evaluation of policy development and implementation processes and their outcomes. Several African countries are benefiting from the Global Land Tool Network (GLTN), an initiative by UN-Habitat and its partners that seeks to document best land practices and tools in the region. The Network is also active in improving knowledge management in the land sector through building the capacity of institutions, civil society organizations, professional associations and international organizations.

Many African countries are adopting innovative land management, especially in the area of continuum of land rights. There is an increasing recognition of the many ways of securing tenure, especially for the poor, women and indigenous people in Africa. Countries are thus acknowledging that for many Africans rights to hold, occupy, use and deal with land go beyond title and can be safeguarded through a range of means such as group / customary / tribal land rights (e.g. Botswana and Namibia); tenancy agreements (e.g. residential licences in The United Republic of Tanzania); certificates (Ethiopia); written agreements signed by an authority (e.g. between buyer and seller); and other proofs such as electricity and water bills and tax receipts. This flexibility of securing land rights and access facilitates the integration of rural migrants into city and town centres, protects against forced eviction, promotes investment in land (using local resources) and, more importantly, reduces conflicts over land. Several African countries are making progress and innovating in the continuum of land rights.

Progress at the subregional levels is highlighted below:

Southern Africa: SADC has established a Land Reform Technical Support Facility, intended to provide access to expert advice, training and technical support to its Member States on different aspects of land reform. In addition, there are a number of national and regional civil society network organizations addressing land and natural resource rights and policies in the region.

West Africa: Efforts have been made to recognize and register customary rights in countries, such as Niger, Benin and Côte d'Ivoire, and to incorporate them into common law in Ghana. Many of the francophone countries have introduced "Gestion de Terroir" (land management) programmes to improve the management of village lands and natural resources. In the Sahelian zone, some countries have developed Pastoral Code–framework laws. Farmer organizations are also active players in land debates, and the intergovernmental organization Comité Inter-Etats de Lutte contra la Sécheresse (CILSS) has been active in fostering convergent land policies and exchange of lessons learned. LandNet, a civil society network, has active national networks in a number of countries, including Burkina Faso and Togo.

Eastern Africa: East African countries are faced with the colonial legacy of dualistic tenure systems and have all gone through some sort of policy process seeking to address this situation. Post–independence Kenya redistributed some of its white commercial farmland and adopted a comprehensive land-titling programme, which remains incomplete and problematic. The country is now reforming its land institutions and management systems. In the late 1990s, both Uganda and The United Republic of Tanzania enacted new land laws granting security to customary land holdings, and establishing decentralized land administration arrangements. Kenya, Uganda, The United Republic of Tanzania and Rwanda all have active civil society Land Alliances or LandNet chapters, which address common issues through the Land-Net East Africa regional network. Additionally, the subregion has civil society organizations concerned with gender and land.

Central Africa: There is limited research and data availability on land issues in central African countries. These countries are not currently undertaking land policy reform processes. But, just like the rest of Africa, they suffer from the contradictions of inherited colonial land policies and customary tenure practices. Cameroon is the only country in the subregion that has embarked upon land reform activities. In 2004, the country established a national committee to assess the 1974 land ordinances and propose a new land reform and land tenure reform with a view to facilitating the right to land ownership by the majority of the population; restoring the viability and credibility of land titles; responding to the needs of economic operators in various sectors; and improving and facilitating judicial procedures for land access and titling.

North Africa: Between 1950 and 1975 North African countries undertook major land reforms, achieving significant benefits in favour of peasant farmers, landless workers and pastoral nomads, substantially improving access to European export markets, reducing poverty and the high rates of malnutrition, illiteracy and landlessness that had prevailed in the low-income traditional rain-fed agricultural sector. As land distribution and rural investment waned during the 1970s and 1980s, inequality became characteristic of North African agriculture, and richer farmers and those with larger land holdings started benefiting disproportionately from agricultural services. This resulted in large numbers of landless rural labourers, whose livelihoods are threatened by population growth, the declining quality of agricultural land and the withdrawal of state support during the structural adjustment period of the 1980s and 1990s.

Box 12: Progress in sustainable land management

During the period covered by this review, the region launched through NEPAD the TerrAfrica Initiative to help countries improve land and water management. The initiative coordinates efforts by sub-Saharan African countries, the international development community and other stakeholders in land and water management for sustainable development and has provided support to countries, to develop country sustainable land management investment frameworks. Ethiopia, Ghana, Mali, Niger, Togo, and Uganda have completed their investment frameworks and are working to secure resources to implement them within the CAADP process. A number of other countries are at various stages in the preparation and implementation of their investment frameworks.

(ii) Challenges and constraints

The constraints facing the Africa region's land policy reforms include: inappropriate institutional frameworks; shortages of financial resources, within both national budgets and donor aid allocations; disagreement between development actors over the use of increasingly scarce land resources; and uncertainties about exactly what policies can deliver the right balance between improving livelihoods, protecting the poor and increasing opportunities for economic growth and investment. Land fragmentation and the associated disputes (especially in densely populated areas), are proving to be quite challenging, particularly in densely populated and land-locked countries. Furthermore, land in countries coming out of, or in conflict, or neighbouring such countries, is a pressing issue. These include the Democratic Republic of the Congo, Somalia, Liberia, Côte d'Ivoire, Sierra Leone, Rwanda, Burundi, Chad and Uganda. It is now urgent to help these countries to formulate and implement housing and land policies for the resettlement of refugees and internally displaced persons.

(iii) Lessons learned and way forward

There is a need to revisit the dominance of the State in land administration, which is a legacy of the colonial period. Further decentralization of land governance is urgently required, as is recognition of customary land rights and institutions. Professionalism and good governance in land administration should be promoted, and alternative systems of land rights beyond the complex and expensive system of land titling further explored and promoted. This should be complemented by the development of appropriate land dispute resolution mechanisms. Stakeholders must be effectively engaged at all levels of land policy development and implementation, and more resources should be mobilized for the implementation of land reform programmes.

Furthermore, well targeted institutional capacity strengthening initiatives should be put in place. These include: a land institutions facility to support institutional change; development and decentralization in government land agencies to further promote good governance in land administration and management; a programme of training and human resources development in order to generate long-term support and capacity development for African higher education and training institutions to develop the human resources required for land policy and land reform in the region in the 21st century; a research development programme to develop a region-wide research framework on land to which a variety of research organizations, networks, donors and international institutions can contribute in order to fill knowledge gaps and support ongoing land policy / implementation processes; a civil society support facility to strengthen advocacy, public debate and consultation in country and regional networking and lesson learning, and build the capacity of NGOs and CSOs to assist governments in land policy implementation; greater advocacy awareness on the negative impacts of forced evictions and promotion of regulations that protect the fundamental rights of citizens to land; and greater awareness and sharing of experience in implementing the continuum of land rights, which promotes equity (especially for indigenous people), and is pro-poor and gender sensitive.

(k) *Sustainable mineral resources development*

The region's mineral industry is one of the largest in the world. Africa is the second biggest continent, with 30 million km² of land that is rich in natural mineral resources. For many countries in the region, mineral exploration and production constitute a significant part of their economies and are vital to future economic growth. The region is richly endowed with mineral reserves and ranks first or second in world reserves of bauxite, cobalt, industrial diamonds, phosphate rock, platinum-group metals (PGM), vermiculite, and zirconium. Gold is one of the region's main mining resources. Many other minerals are also present in large quantities. The 2005 share of world production from the region's soil was as follows: bauxite 9 per cent; aluminium 5 per cent; chromite 44 per cent; cobalt 57 per cent; copper 5 per cent; gold 21 per cent; iron ore 4 per cent; steel 2 per cent; lead (Pb) 3 per cent; manganese 39 per cent; zinc 2 per cent; cement 4 per cent; natural diamonds 46% per cent; graphite 2 per cent; phosphate rock 31 per cent; coal 5 per cent; mineral fuels (including coal) and petroleum 13 per cent; and uranium 16 per cent.

As of 2005, strategic minerals and key regional producers were: diamonds: 46 per cent of world production, produced by: Botswana 35 per cent; Congo (Kinshasa) 34 per cent; South Africa 17 per cent; Angola 8 per cent. Gold: 21 per cent of world production, produced by: South Africa 56 per cent; Ghana 13 per cent; The United Republic of Tanzania 10 per cent; and Mali 8 per cent. Uranium: 16 per cent of world production, produced by: Namibia 46 per cent; Niger 44 per cent; South Africa less than 10 per cent. Bauxite (for aluminium): 9 per cent of world production, produced by: Guinea 95 per cent; Ghana 5 per cent. Steel: 2 per cent of world production, produced by: South Africa 54 per cent; Egypt 32 per cent; Libya 7 per cent; Algeria 6 per cent. Aluminium: 5 per cent of world production, produced by: South Africa 48 per cent; Mozambique 32 per cent; Egypt 14 per cent. Copper (mine/refined): 5 per cent of world production, produced by: Zambia 65 per cent/77 per cent; South Africa 15 per cent/19 per cent; Congo (Kinshasa) 13 per cent/0 per cent; Egypt 0 per cent/3 per cent. Platinum/Palladium: 62 per cent of world production, produced by: South Africa 97 per cent/96 per cent. Coal: 5 per cent of world production, produced by: South Africa 99 per cent.

Many countries in the region are highly dependent on mineral exports. Mineral fuels (coal, petroleum) account for more than 90 per cent of the export earnings of Algeria, Equatorial Guinea, Libya, and Nigeria. Various minerals account for 80 per cent of the exports of Botswana (led by, in order of value, diamonds, copper, nickel, soda ash, and gold); Congo (Brazzaville) (petroleum); Congo (Kinshasa) (diamonds, petroleum, cobalt, and copper); Gabon (petroleum and manganese); Guinea (bauxite, alumina, gold, and diamond); Sierra Leone (diamonds); and South Sudan (petroleum and gold). Minerals and mineral fuels accounted for more than 50 per cent of the export earnings of Mali (gold); Mauritania (iron ore); Mozambique (aluminium); Namibia (diamonds, uranium, gold, and zinc); and Zambia (copper and cobalt). The mineral industry's exports make up an important part of the region's gross domestic income. Ongoing mining projects of more than $US 1 billion are taking place in South Africa (PGM 69 per cent; gold: 31 per cent); Guinea (bauxite and aluminium); Madagascar (nickel); Mozambique (coal); Congo (Kinshasa); Zambia (cobalt and copper); Nigeria and Sudan (crude petroleum); Senegal (iron), and many others.

The countries of the region are making progress in reforming legislation on the mining industry. The reforms are geared towards increased investment, ensuring equity in access to mining rights and resources, empowering disadvantaged communities and groups, and ensuring access to the benefits by a growing percentage of the population. Reforms were implemented by Eritrea in 2005 through a review of the Mining Act. This raised the maximum possible equity interest that the government may hold in a project through an option agreement from 20 per cent to 30 per cent. As of 28 February 2005, platinum producers could no longer hold the proceeds of Zimbabwean mining activity in foreign accounts. At the end of 2004, the government of Liberia passed legislation providing for controls on the export, import, and transit of rough diamonds. In addition, the government suspended the issuance of all permits for diamond mining and placed a moratorium on alluvial diamond prospecting. On 15 December 2005, the Parliament of Ghana passed a new Minerals and Mining Law (Law No. 703), which provides for access to mineral rights on a first-come, first-considered basis; a specific timeframe within which all applications should be granted; the right for applicants to demand written reasons from the Minister if an application is rejected; the government's right to acquire land or authorize its occupation and use if the land is required for mining purposes; the establishment of a cadastral system for the administration of mineral rights; the establishment of the permissible range of royalty rates at not less than three per cent or more than six per cent of total mining revenues; the government's right to obtain a ten-percent free-carried interest in mining leases; and provided that mining leases may not be exceed 30 years and may be renewed once for a maximum of an additional 30 years. In South Africa, the Government's Black Economic Empowerment programme required that black ownership of the mining industry reach 15 per cent by 2009 and 26 per cent by 2014.

Mining companies are investing in exploration activities and the exploration budget is growing. Following the entry of China and India into the region's mining sector, there has been a leap in the exploration budget. The outlook in outputs of the various minerals is very promising based on projections from 2005-2011.

The JPOI notes that mining, minerals and metals are important to the economic and social development of many countries. It further notes that enhancing the contribution of the sector to sustainable development should include actions at all levels to: support efforts to address the environmental, economic, health and social impacts and benefits of the sector, using the lifecycle approach; enhance the participation of stakeholders, including local and indigenous communities and women; and foster sustainable mining practices through the provision of financial, technical and capacity-building support to developing countries. Furthermore, in its Africa chapter, the Plan calls for support to enhance the contribution of the industrial sector, in particular mining, minerals and metals, to the sustainable development of Africa by supporting the development of effective and transparent regulatory and management frameworks and value addition, broad-based participation, social and environmental responsibility, and increased market access in order to create an environment conducive to investment. These complement the NEPAD objectives on mining, which are to improve the quality of mineral resource information; to create a regulatory framework that is conducive to the development of the mining sector; and to establish best practices that will ensure efficient extraction of natural resources and minerals of high quality.

(i) Concrete action taken and progress made

Regional initiatives

In March 2002, African ministers responsible for mineral resources development established the African Mining Partnership (AMP) as a platform for implementing the mining chapter of NEPAD. As a high-level ministerial forum, the AMP is aimed at influencing the mining agenda in the region with a view to achieving sustainable development. The AMP currently runs projects on beneficiation, artisanal and small-scale mining, environment, human resource development, and promotion of foreign investment and indigenous/local participation in mining ventures. There has been some progress in the implementation of most of the projects. Furthermore, the AMP has evolved into a forum for countries in the region to discuss and take common positions on emerging issues of importance to Africa. A good example is the AMP stance on the new EU regulations on chemicals, the Registration, Evaluation and Authorization of Chemicals (REACH), which could have adverse social and economic impacts on mineral-dependent African countries.

The establishment in 2005, of Communities and Small-scale Mining (CASM) Africa was also important for Africa's efforts to implement the NEPAD chapter on mining. Through partnership with CASM

(Global), CASM (Africa) has become a key conduit and platform for establishing critical in-country and locally owned programmes, and influencing the international agenda based on African experiences. CASM (Africa) assists with on-the-ground implementation of artisanal and small-scale mining projects and activities. The Africa Mining Network (AMN), officially launched in 2005, is another important initiative facilitating information exchange on mineral resources development in Africa, which is a key objective of NEPAD. NEPAD Agency is championing a new Spatial Development Programme (SDP) aimed at configuring, prioritizing and promoting interrelated infrastructure and large-scale natural resources projects. The SDP is anchored in the exploitation of Africa's natural resource endowments, in particular minerals. The high rents that minerals currently generate boost the economic and business rationale for infrastructure projects, making them more viable.

In addition, using a clustering process will enable other sectors with lower rents to benefit from the larger-scale anchor project by generating a pipeline (the corridor principle) of other credible and sound projects in an integrated manner. This would maximize linkages between the anchor project and the local economy; promote value addition and local beneficiation of raw materials; and foster the development of Small and Medium-scale Enterprises (SMEs) that could enter the inputs, goods and services market. The SDP was presented and endorsed at the Sector Stakeholder Workshop of the NEPAD Medium to Long-term Strategic Framework Infrastructure Study held in Addis Ababa, Ethiopia from 26-28 July 2007. With regard to capacity development, special reference should be made to efforts made by the Southern and Eastern Africa Minerals Centre (SEAMIC), an UNECA-sponsored Centre of Excellence based in Dar es Salaam, established by The United Republic of Tanzania in 1977, to facilitate training, research, and development on industrial minerals applications, and to provide analytical services and consultancy for mineral identification and environmental assessment to its Member States. The Centre has seven members: Angola, Comoros, Ethiopia, Kenya, Mozambique, The United Republic of Tanzania, and Uganda. In May 2007, the Governing Council of SEAMIC decided to open membership to all countries in the region and to other stakeholders, including the private sector. Given the dearth of centres of excellence in the mineral sector in Africa, this decision could have a positive impact in the region.

On the policy side, at subregional level, SADC and the West African Economic and Monetary Union (UEMOA) have been working to improve harmonization of mineral policies, standards, and regulatory and legislative environments. In 2004, UEMOA adopted a common mining policy for the subregion. Subsequent efforts to improve harmonization in the subregion include the drafting in 2006 of a mining code that defines mining titles, a model mining agreement, and the fiscal regime to be applicable in UEMOA Member States. Similarly, in March 2007, 12 SADC Member States adopted a mining sector harmonization framework that should, in the longer term, lead to convergence and a harmonized policy regime in the minerals sector in the subregion.

CSR in the mining sector: Efforts to modify production and consumption patterns have mainly been restricted to the country level. In this respect, South Africa has drafted legislation to promote local beneficiation and value addition of minerals. Angola and Namibia have started sizeable diamond polishing units. Inspired by the South African Mining Charter on Black Economic Empowerment, Namibia, Zambia and Zimbabwe are pursuing strategies to increase the participation of local entrepreneurs and other stakeholders in the development of their mineral resources. The United Republic of Tanzania is reviewing clauses in its mining codes and fiscal regime to maximize local benefits.

Special initiatives: A key event in the efforts to build consensus on emerging issues at continental level was the 2007 Big Table on Managing Africa's Natural Resources for Growth and Poverty Reduction, co-organized by UNECA and AfDB and held in Addis Ababa, Ethiopia, on 1 February 2007. The Big Table is an initiative designed by UNECA to promote, in an informal environment, frank and constructive dialogue between senior African policymakers and their OECD counterparts. The 2007 Big Table discussed the challenges of effectively managing Africa's natural resources for growth and poverty reduction and framed an agenda for future action. It was attended by 52 participants, including ministers and senior officials from 11 African countries, high-level representatives from OECD countries, regional and international organizations, research centres, the private sector and NGOs. The outcomes of the meeting are expected to have a lasting impact and to influence debate on natural resources issues in the region for the foreseeable future, as is shown by the tacit endorsement received at the July 2007 Summit of African Heads of State and Government, which directed AUC to convene a meeting of African Ministers responsible for natural resources development to further reflect on issues pertaining to the exploitation and management of Africa's natural resources as a catalyst for development.

(ii) Challenges and constraints

Mineral resources are non-renewable, finite and unevenly distributed across space. The wealth that they generate is transient and vulnerable to rent seeking. In addition, their exploitation is often capital-intensive rather than labour-intensive and creates enclave economies that have little or no links with the wider national economy. These attributes generate daunting policy challenges that are difficult to manage and overcome. The major challenges of sustainable development in the context of non-renewable resources (such as minerals) are to create a viable, integrated and diversified industry throughout the value chain to sustain mineral wealth long after the minerals have been depleted, without compromising environmental, social and cultural considerations, and to ensure a regulatory framework that encourages wealth creation. These challenges are relevant to most African mineral-producing countries.

Another important challenge is to be able to invest windfall revenues productively in order to ensure lasting wealth, and to decide how much ought to be saved and how much invested and in what form. Distributing benefits equitably, while balancing and managing conflicting local and national-level concerns and interests and deciding what form the allocation should take in order to promote pro-poor and broad-based growth, poses an equally difficult challenge. The governance and macroeconomic challenge of ensuring sound systems of governance and a stable macroeconomic environment that curb rent seeking and corruption, managing the adverse impacts of resource rents, as well as attendant challenges such as Dutch Disease, foreign exchange rate appreciation and commodity price volatility, and enhancing public interest in wealth conservation overwhelms most countries in the region. This is particularly true because many countries face enormous capacity challenges at all levels and in virtually every sector.

(iii) Lessons learned and way forward

There is strong evidence that Africa's mineral resource endowment offers bright prospects for sustained medium- to long-term growth. A number of factors support this. Among these are rising mineral and commodity prices in the international market and growing demand for minerals from China and India. Stakeholders at all levels have also recognized that, in order to better harness the full benefits of their mineral resources potential, countries in the region must strengthen their governance systems and enhance institutional capacity, including the capacity to negotiate mining contracts. Civil society organizations are gaining in strength, and consultation with local communities in the process of developing mining projects is becoming standard practice. Ownership and local participation are also becoming critical. In response to this, several countries are reviewing their mineral policies and legislation. This may become a regional trend.

In anticipation of this there is a need to review current mining regimes at the regional level with a view to developing a template for future mining laws and regulations in Africa. There is also a need to establish mechanisms to promote capacity-building, exchange of experiences, identification and dissemination of best practices, and the creation of an appropriate knowledge base on mineral resources management.

Strategic thinking and policy innovations, new management techniques, broad-based capacities especially in science and technology, and adaptation of new and emerging technologies are needed for the African region to better harness its natural resource wealth in order to promote growth and poverty reduction.

3. Sustainable social development

During the period under review, the African region made progress in the pursuit of sustainable social development. Its social development framework is defined by the AU Social Policy Framework and the protocols of subregional economic communities, all of which are largely consistent with the MDGs. The key elements in the analysis of sustainable social development include the extent of social sector development, poverty eradication, and level of inequality. The region recorded a number of successes in the achievement of some of the MDGs and is on track. While a number of countries made good progress, overall performance is somewhat inadequate. Nonetheless, the evidence is strong and encouraging that with the right policy mix, efficient use of resources, improved governance and enhanced and sustained international support, the region will achieve many of the MDGs. At the MDGs Review Summit in September 2010, world leaders reaffirmed their commitment to achieving the goals by 2015 and a number of promising initiatives, such as the UNDP MDG Acceleration Framework, to replicate success stories are under way.

(a) Poverty and inequality

While there has been respectable economic growth, this has come with an increase in inequality. The UNDP's new inequality-adjusted Human Development Index shows that the human development ratings of African countries are substantially lower, if adjusted for inequality in wealth distribution. For example, the adjustment reduces ratings for countries such as Central African Republic, Mozambique and Namibia by as much as 40 per cent. Social protection frameworks have also remained weak and ineffective. The recent global financial crisis provided a good test of the vulnerability of some segments of the region's populations to shocks. While efforts were made to implement the AU Social Policy Framework, a number of countries still lack social protection mechanisms, and basic social security is still beyond the reach of many. Less than five per cent of the working age population is covered by contributory pension schemes, unemployment benefits and other social safety nets. The poor are therefore still disproportionately exposed to economic contraction and price rises. Worse, to the detriment of millions of the region's people, the strong economic growth that has occurred has been largely jobless and without visible poverty-eradication benefits. There are various projections of the region's growth prospects and their implications for the poverty eradication goal by 2015. While there is general optimism, UNCTAD projections show that the region's per capita income will grow by only 2.7 per cent in 2011 and 2.8 per cent in 2012, both of which are below the three per cent threshold considered the minimum to create a dent in poverty. The need for accelerated progress is also underscored by the IFAD 2011 Rural Poverty Report, which points to the fact that sub-Saharan Africa is still home to a third of the world's poor, a number that has risen from 268 million to 306 million over the past decade. The UNDP Multi-dimensional Poverty Index puts the number of poor in the region as high as 458 million. Poverty has become both a rural and urban phenomenon.

Commitments

Poverty is a multidimensional social phenomenon that can be analytically divided into two main dimensions: income poverty, which is the lack of income necessary to satisfy basic needs; and human poverty, which is the lack of human capabilities, for example poor life expectancy, poor maternal health, illiteracy, poor nutritional levels, poor access to safe drinking water and perceptions of well-being (UNDP, 2003).

The countries of the region have pledged to implement several global initiatives focused on poverty eradication. Governments at the World Summit for Social Development, held in Copenhagen, Denmark in 1995, pledged to eradicate poverty through decisive national actions, which include implementing national anti-poverty plans and international cooperation. The Millennium Summit of 2000 adopted the MDGs as a powerful agenda for a global partnership to fight both income and human poverty, and set the income poverty eradication target of cutting extreme poverty by half by the year 2015. In the context of the Beijing Declaration and Platform for Action, Governments agreed to promote gender mainstreaming in all policies and programmes, including those aimed at poverty eradication (UNECA, 2004).

The JPOI states that eradicating poverty is the greatest global challenge facing the world today and an indispensable requirement for sustainable development, particularly for developing countries. It recognizes that although each country has the primary responsibility for its own sustainable development and poverty eradication, the role of national policies and development strategies cannot be overemphasized. The Plan calls for concrete actions and measures to eradicate poverty in Africa and to enable countries to achieve the goals of sustainable development. It endorses the internationally agreed poverty-related targets and reaffirms the MDGs of halving, by the year 2015, the proportion of the world's people whose income is less than one dollar a day, those who suffer from hunger, and those without access to safe drinking water. It also calls for the establishment of a world solidarity fund to eradicate poverty. At the national level, it calls for the empowerment of people living in poverty through the delivery of health services, increasing food availability and affordability, increased access to sanitation, and promotion of full and equal participation in development. It enjoins the international community to support NEPAD, including its key objective of eradicating poverty. Furthermore, the Outcome Document of the 2005 United Nations World Summit resolved that countries with extreme poverty adopt and implement MDG-based PRSPs or MDG-based national development plans (UNECA and AU, 2006).

(i) Concrete action taken and progress made

<u>**Regional initiatives**</u>

AU expressed its commitment to facilitating accelerated progress towards the MDGs by African countries through a Common Position presented to its own 2005 Summit, the G-8 Gleneagles Summit and the 2005 World Development Summit. The AU reiterated its commitment to bringing about poverty eradication and meeting all the MDGs at the 2006 Banjul Summit, and the 2007 Accra Summit. It convened an Extraordinary Summit on Employment and Poverty Alleviation, held in Ouagadougou, Burkina Faso, in September 2004, where a Plan of Action and Follow-up Mechanisms were adopted, calling upon Member States to place employment at the centre of their economic and social policies. The Summit also agreed to include initiatives on employment creation and poverty alleviation as indicators in the APRM.

The United Nations system has been providing support on poverty-related issues to countries in the region and the AU through numerous initiatives. The International Labour Organization (ILO) is assisting in the implementation of the outcomes of the Extraordinary Summit on Employment and Poverty Alleviation and has aligned its work plans with the outcomes and recommendations of the Ouagadougou Summit. The ILO document "The Decent Work Agenda in Africa: 2007-2015", launched at the 11th African Regional Meeting in April 2007, details some of the activities that the organization is undertaking to assist the Africa region. At the national level, ILO is working with governments to advance poverty eradication through Decent Work Country Programmes. At the regional level, ILO is working to strengthen the role of AU and RECs. UNDP, in partnership with United Nations agencies, UNECA and the Bretton Woods institutions, is providing support to more than 30 countries in the region that are preparing and implementing MDG-based national strategies and action plans.

UNECA's 39th Conference of African Ministers of Finance, Planning and Economic Development in May 2006 was devoted to the theme "Meeting the Challenge of Employment in Africa". The ministerial statement of the conference reasserted the important role of employment in poverty reduction and stressed the need to incorporate employment objectives in national development and poverty reduction policies. UNECA's 40th Conference of African Ministers of Finance, Planning and Economic Development in April 2007 had the theme "Accelerating Africa's Growth and Development to Meet the MDGs: Emerging Challenges and the Way Forward". The ministerial statement of the conference reiterated the importance of the MDGs for poverty eradication and highlighted the regional and national level actions required to achieve them. Through the African Learning Group on PRSPs and MDGs, UNECA has facilitated capacity-building and learning among countries of the region. At the country level, UNECA has also provided advisory services to Liberia, Ghana and Ethiopia to help policymakers design and implement

MDG-based PRSPs. The AfDB has provided technical and financial support in scaling up investments for poverty eradication.

National actions

At the national level, countries have developed national development plans that incorporate poverty reduction strategies (PRS). Countries receiving debt relief and concessionary loans and grants from the World Bank and the IMF have been required to prepare PRSPs as from 1999. Since 2000, more than 30 African countries have developed PRSPs. Even non-HIPC countries such as Botswana, Egypt, Morocco, Nigeria and Zimbabwe have prepared national poverty reduction strategies. In some countries, such as Nigeria and South Africa, subnational administrations have prepared poverty reduction strategies. Countries have also prepared national development strategies and medium-term expenditure frameworks that fully integrate the MDGs. This ensures inclusion of both income and human poverty into national development frameworks. According to the United Nations MDG Report 2007, 41 countries in Africa had started preparing national development strategies aligned with the MDGs. In addition to their long-term visions, with clear goals and targets, such strategies are designed to create jobs and decent work, and provide those living in poverty with the necessary resources and skills to participate in development.

A review of the impact of the implementation of PRSPs on poverty in implementing countries shows that the PRSP framework has had a catalytic effect on efforts to reduce poverty and accelerate economic growth. The poverty focus of national development strategies has improved and sustainable growth has been promoted in many countries. The incidence of poverty has decreased in a number of countries. Furthermore, the PRSP Framework and the MDG targets are having a positive effect on the mobilization of external resources for development. For example, at its Gleneagles Summit in July 2005, the G-8 agreed to cancel the debt of 18 of the 24 poorest countries in the world, 14 of which are in Africa (UNECA and AU, 2006).

(ii) Challenges and constraints

The internationally agreed measure of income poverty is the proportion of people unable to earn an income of approximately one dollar a day per person measured in Purchasing Power Parity (PPP). The reduction of income poverty in particular and poverty eradication in general is primarily dependent on the pace and character of economic growth. Rapid and sustained growth increases incomes and generates the resources necessary for delivering social services for the attainment of the MDGs. However, economic growth in the region, particularly in SSA, though strong in recent years, remains highly dependent on primary commodities, such as oil, minerals and agricultural exports. The region's economies are therefore still highly vulnerable to shocks, whether induced by terms of trade or weather, and this constitutes a major challenge to sustained growth and poverty reduction. Although Africa's recent growth performance has been quite impressive, it has had no significant effect on poverty eradication.

A large number of people in the region remain vulnerable and continue to be marginalized as a result of gender, age, ethnicity or disability. Disparities in progress between urban and rural areas also remain significant, with high levels of poverty in rural areas. The wealth gap is widening between the prosperous and the marginalized just as much as between urban and rural. Wide gaps remain in women's access to paid work and they were most affected by the job losses that resulted from the economic and financial crisis in 2008 and 2009. Moreover, the growth in employment since economic recovery set in 2010 has been lower for women than for men.

The poor children in rural areas have so far made very slow progress in terms of improved nutrition. Advances in sanitation have also not been widely felt among the poor and those living in rural areas. More than 40 per cent of the region's population still lacks access to toilets or other forms of improved sanitation. The situation is similar to that of Southern Asia, where sanitation coverage for the poorest 40 per cent of households hardly increased between 1995 and 2008. Thus, socio-economic inequalities have grown very wide, despite progress in poverty reduction.

In an early attempt to analyse poverty at the continental level using cross-country quantitative analysis, UNECA (1999) found that SSA would need to grow by seven per cent per year in order to meet the first MDG of halving poverty by 2015. This finding suggests that if African countries are reducing poverty more slowly than other regions, the reason could be that the growth rates in the region have not been high enough. Indeed, over the period 2001-2009, the region's average rate of economic growth was 5.3 per cent per year. Only nine out of 53 countries – Angola, Chad, Equatorial Guinea, Ethiopia, Mozambique, Nigeria, Sierra Leone, Sudan and Uganda – recorded average GDP growth rates that were higher or equal to seven per cent per year (AfDB et al., 2010). The implication is that in order to have a more substantial effect on poverty reduction, economic growth in more African countries will need to be higher than it has been so far.

A deeper analysis of the relationship between economic growth and poverty reduction in Africa shows that in the majority of the fastest growing countries, defined as the countries with growth rates higher than the African average of 5.3 per cent of GDP over the period 2001-2009, economic growth had the weakest effect on poverty reduction. Of 44 countries for which there is information on growth elasticities of poverty, 14 recorded high economic growth rates. These were Angola, Burkina Faso, Cape Verde, Chad, Ethiopia, Ghana, Mali, Mozambique, Nigeria, Rwanda, Sierra Leone, The United Republic of Tanzania, Uganda and Zambia. However, only three countries (Cape Verde, Ethiopia and Ghana), or about one fifth of the fastest growing countries, have high growth elasticities of poverty. Among the fastest growing countries, no oil or mineral exporter has a high growth elasticity of poverty. On the other hand, oil-producing countries with high growth elasticities of poverty have low growth rates.

Table 4: Growth and inequality elasticities of poverty (US$ 1.25 in 2005 PPP)15

	Elasticities		Comparative ratio
	Growth (1)	Inequality (2)	Absolute (1)/(2)
East Asia and Pacific	-2.5	3.4	0.7
Eastern Europe and Central Asia	-4.0	6.4	0.6
Latin America and Caribbean	-3.1	5.1	0.6
Middle East and North Africa	-3.2	4.9	0.7
South Asia	-2.0	2.5	0.8
Sub-Saharan Africa	-1.5	1.7	0.9
Africa	-1.7	2.0	0.9

The weak growth elasticity of poverty suggests that countries in the region have not been able to reduce poverty as needed, even in cases where the growth rate was relatively high. This shows that growth alone is an insufficient condition for poverty reduction. As Table 4 shows, SSA has the lowest average growth elasticity of poverty. It is half of the elasticity of Latin America and the Caribbean and only two fifths of the elasticity of Eastern Europe and Central Asia.

(iii) Lessons learned and way forward

The need to attain sustained economic growth through a pro-poor perspective is critical. It is vital to ensure that there is a level playing field where all can actively participate in the growth process. There is also a need for further diversification of economic activities within the region. The vulnerability of the region's economies to shocks needs to be addressed if sustainable growth is to be achieved. Growth patterns that reduce inequality (pro-poor growth) are more likely to reduce the number of years needed to halve pov-

15 Augustine Fosu (2011).

erty than growth without changes in inequality. Because of their interlinkages, equity in terms of access to employment opportunities, productive resources such as land and credit, and basic social services such as health, education, water and sanitation, is central to poverty reduction. Additionally, the current pattern of growth must change and lead to the generation of employment. However, in order for this to occur, it is critical that the production structure of the region's economies be diversified from dependence on natural resource sectors to labour-intensive sectors, such as the service industry.

Major lessons learned from the review of the PRSPs are that the framework paid insufficient attention to important areas such as trade, employment, social protection and gender equality and women's empowerment. The trade and regional integration aspects of poverty reduction programmes need to be strengthened. In landlocked countries, trade and regional integration can significantly reduce poverty through joint regional investment programmes in infrastructure. Poverty reduction strategies should aim to promote equal opportunities for women and men. When women are empowered to live full and productive lives, children are lifted out of poverty. There is a need to mainstream social protection in National Development Strategies/PRSPs. Social protection schemes are needed to provide safety nets for those who are vulnerable to income shocks, which could result from frictional unemployment, ill health, HIV/AIDS and old age. This will also help to improve equity.

An important lesson emerging from country experiences in poverty eradication is that countries need to own their national development and be provided with the policy space to design strategies that meet their specific needs. Countries also need to develop capacity for monitoring and evaluating progress in poverty eradication. There are already well-developed plans of action at the regional level (e.g. the Ouagadougou Plan of Action to promote employment and poverty alleviation) and national-level poverty reduction strategies. It is therefore important to implement these plans fully in order to ensure that poverty eradication actually takes place on the ground. Countries should improve revenue collection and public expenditure management. However, robust domestic resource mobilization strategies must be accompanied by credible resource commitments by development partners to support national strategies for development in the core areas of infrastructure, human capacity development, regional integration and governance. Delivery of the promised aid and debt relief will allow African countries to boost expenditure in key sectors essential for poverty eradication, including infrastructure and social services. There is a need to strengthen the capacity of countries to collect the statistical data that is essential for monitoring poverty eradication. Lastly, internationally, a new global partnership is needed, as was called for by the December 2011 Fourth High Level Forum on Aid Effectiveness, in order to shift collective action to development effectiveness.

(b) Education

(i) Concrete action taken and progress made

Progress in achieving universal primary education has been the remarkable success story of Africa's MDG performance. The majority of countries in the region are on track to achieving the goal by 2015. Outstanding progress was recorded by Burundi, Ethiopia, Ghana, Kenya, Mozambique and The United Republic of Tanzania through measures which included abolition of school fees, increased public investment, and enhanced donor support, especially the World Bank's Education for All Fast Track Initiative. Nevertheless, the region still needs to make progress in some areas, which include quality of education, completion rates, enrolment in secondary and tertiary education, reform of education systems and curricula, teaching capacity and infrastructure. Targets in these areas are far from being achieved in light of the fact that more than 30 million children in the region, most of them girls, still do not go to school, and the number of new teachers needed between now and 2015 equals the present teaching capacity of the region. At tertiary education level, with an enrolment rate of only six per cent, low female participation and more than 40 per cent of faculty positions vacant, the region faces an even greater challenge to bring about the expansion in tertiary education required for sustained growth and development. Much remains to be done to derive benefits from investments in higher education, improve strategic planning and reform educational curricula. Attention also needs to be given to making the skills acquired more relevant to market needs, as this is of vital importance for employment generation and the reduction of youth unemployment, which is becoming a threat to social stability.

Thus, over the period of this review, illiteracy rates fell significantly in some subregions, Southern Africa for example, but remained very high in others, such as West Africa. The net primary enrolment rate rose over the period for both sexes, though the gender gap persisted with more males than females gaining access to primary education. Overall, there was progress in the achievement of MDG 2, mainly due to the abolition of school fees at the primary level. The positive progress in net enrolment rates was not matched by the same completion and enrolment rates at secondary and tertiary levels, however. Much needs to be done to ensure that the skills and knowledge generated match the demands of job markets, especially for young graduates.

(ii) Constraints and challenges

High quality education is the foundation of long-term growth and development. Improvement in the quality of education requires investment in educational infrastructure, availability of well-trained teachers, effective and efficient management of school systems, curricula that are responsive to developmental needs and the requirements of the employment markets, and the ability of students to connect with one another and the rest of the world. An education system must be part of a country's knowledge and innovation system and should therefore be a springboard for generating new knowledge to respond to development challenges. Through policies, reforms and various highly successful initiatives, countries in the region have succeeded in reaching out to millions of children who have reached school age, learners at all levels of the educational system and teachers in order to develop the skills that the region badly needs. They have also brought access to technology and high-quality learning content. These efforts in part explain some of the successes the sector has recorded.

Education in the region is nonetheless faced with daunting challenges. The education system in Africa used to be the envy of the western world, but over the years standards have fallen precipitously due to declining quality resulting from poor funding of the sector. Poor infrastructure, lack of qualified teachers, materials, modern teaching and learning aids are among the constraints and challenges facing the sector. Except in a few cases, there is growing privatization of education in the region as quality plummets in public schools and the poor are left in marginalized and substandard government schools. Hence the need to fund education adequately, reform curricula to meet developmental needs, and make the skills and knowledge acquired directly applicable to industry in order to address growing youth unemployment, and to insulate education systems from politics in order to minimize the influence of politicians on the formulation of education policies. Parents, communities and the private sector need to play a greater role in school management and take more interest in the quality of education.

The sector needs improved resource management and greater dedication by teachers, especially at the primary school level. Teacher absenteeism, a low level of teacher effort, and leakage of resources coalesce to produce an education system where young learners leave school without the skills they need to work as adults. Teacher absenteeism can be telling. A 2007 study in one country in the region found that, if a teacher is absent for one day a month, it reduces test scores in mathematics and English by as much as four to eight per cent. This cost is of particular interest, as there are countries where teachers are prone to strike because the significant leverage wielded by teachers' unions in local and national politics. This is a challenge to sustained improvement of the quality and governance of education.

(iii) **Lessons learned and way forward**

The leaks in the education system must be plugged, and governments must be made to deliver the financial resources promised to schools on time so that teachers are paid and facilities provided and maintained. More training is needed for teachers, and Schools Management Committees should be encouraged to play a more visible oversight role. Better and more frequent inspections are also required, as is rigorous performance evaluation. Information needs to be made available for planning, and to parents. National-level campaigns to motivate parents, civil society and local communities and involve them in the running of their schools should be encouraged. The region needs to rethink the future of higher education and its link to innovation for development. A poor education system disadvantages children who constitute the future generations of leaders. If such leaders are poorly trained, the countries and the region will be incapacitated.

(c) Gender equality and women's empowerment

The global and regional frameworks for commitments on gender equality and women's empowerment are the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW), the MDGs, the AU Gender Strategy, as well as strategies developed by RECs, which draw inspiration from the AU Framework. Thus far, there has been measurable progress in the implementation of these commitments. The gender equality and women's empowerment dimension of social sustainability saw the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa expanded to include some of the definitions contained in the Declaration on the Elimination of Violence against Women, such as economic violence or harm; 29 African countries have ratified the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa; and in October 2010 AU launched the African Women's Decade. There has been steady, albeit slow, progress towards universal primary education, the empowerment of women and gender parity in educational enrolment; and significant and encouraging improvements in the proportion of seats held by women in national parliaments, but with a visibly low rate of participation by women in the executive, the judiciary, traditional and other public spheres across the region.

Generally, most countries in the region have registered progress in closing the gender gap in education and employment, and good progress has been made in attaining the targets set by CEDAW and the Beijing Platform for Action, as exemplified by Kenya, which has passed legislation on the property and inheritance rights of HIV/AIDS orphans, and The United Republic of Tanzania, which has recognized women's access to land and made credit available to develop land.

(i) Concrete action taken

Some progress has been made in efforts to implement gender equality commitments through strengthening social policy and enacting laws to promote women's socio-economic rights. Ten countries still maintain reservations to the CEDAW and periodic reporting to the United Nations Committee on CEDAW, some countries not having reported at all since 1992. Eighteen of the 28 countries practising female genital mutilation have outlawed the practice. Since 2007, six countries have developed National Action Plans on women, peace and security; development partners have continued to strengthen their support to socio-economic sectors, aimed at addressing vulnerable groups and promoting gender equality.

There is a continuing upward trend in political participation by the region's women, who in 2011 hold 18.5 per cent of parliamentary positions, up from 15 per cent in the previous year. Women's representation in national and regional parliaments in sub-Saharan Africa is now higher than in most other developing regions. Most countries are on track to achieving gender parity in primary education by 2015. Enrolments have increased faster for girls than for boys over the past few decades, and between 1991 and 2007 the ratio of female to male primary enrolment rose in all regions. Both primary and secondary school completion rates have improved more rapidly for girls. On average, between 1991 and 2007, completion rates for girls rose 29 points to 87 per cent, while the rates for boys rose 17 points to more than 90 per cent. Improvements in the rates for girls are reflected in the progress in secondary school enrolment. A growing number of countries, including Senegal, Benin and Burkina Faso, have mainstreamed gender concerns into their national development plans and poverty reduction strategies. Over the last five years, Lesotho has achieved the greatest overall improvement of any nation measured by the World Economic Forum's Global Gender Gap Index.

Regional and subregional levels

At the regional level, the principle of equality and non-discrimination between men and women is enshrined in the founding legal instrument of the AU and also in the African Charter on Human and Peoples' Rights (1981), which provides for the elimination of discrimination against women and the protection of their rights. Furthermore, AU Heads of State and Government have adopted two additional instruments that specifically address gender issues. The Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa (the African Women's Protocol) adopted in Maputo in 2003, addresses the concerns of African Women in a more specific manner. This may be appreciated by its total condemnation of harmful practices against women (including the girl child, widows and the elderly), unequal rights in marriage, unequal treatment of women in land distribution and their exclusion from decision-making, among other issues. This instrument dictates that Member States periodically report on their efforts to address harmful traditional practices.

The Solemn Declaration on Gender Equality in Africa (SDGEA), adopted at the AU Heads of State Summit in Addis Ababa in July 2004, requires States to respect existing normative standards on women's human rights. Through the SDGEA, governments have agreed, among other things, to "expand and promote the gender parity principle, ensure the active promotion and protection of all human rights for women and girls, actively promote the implementation of legislation to guarantee women's land, property and inheritance rights including their rights to housing, undertake to sign and ratify the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa by the end of 2004". It therefore reaffirmed the commitment by the region's Heads of State and Government to a number of treaties such as CEDAW, the BPFA and United Nations Security Council Resolution 1325 (2000).

At the subregional level, RECs have adopted gender policies, declarations and guidelines for the promotion and protection of the human rights of women. Many of these highlight the barriers to women's effective participation in regional integration and the steps that must be taken to address them.

Country level performance

So far, 51 African Member States have ratified the Convention on the Elimination of all forms of Discrimination against Women (CEDAW), and 17 have signed the Optional Protocol (UNECA, 2008). The response to the African Women's Protocol has been slower. To date, a total of 25 countries have ratified the Protocol, and 23 have signed. Five (5) countries have not taken any steps to endorse the instrument. States that have ratified are: Angola, Benin, Burkina Faso, Cape Verde, Comoros, Djibouti, Gambia, Ghana, Libya, Lesotho, Liberia, Mali, Malawi, Mauritania, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Senegal, Seychelles, The United Republic of Tanzania, Togo, Zambia, and Zimbabwe. Countries that have only signed are Algeria, Burundi, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Republic of the Congo, Democratic Republic of the Congo, Equatorial Guinea, Ethiopia, Gabon, Guinea Bissau, Guinea, Kenya, Madagascar, Mauritius, Niger, Sahrawi Arab Democratic Republic, Sierra Leone, Somalia, Sudan, Swaziland, and Uganda. Those that have not taken any action at all are: Botswana, Egypt, Eritrea, Sao Tome and Principe and Tunisia. Sixteen (16) Member States have reported on the implementation of SDGE: Algeria, Burundi, Burkina Faso, Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Lesotho, Mali, Mauritius, Namibia, Nigeria, Rwanda, Senegal, South Africa and Tunisia.

Most governments in the region have adopted Constitutions that provide for gender equality and women's empowerment. The countries that have made progress on constitutional provisions on human rights and gender equality include Benin (1990), Ghana (1992), Ethiopia (1994), Malawi (2006) and Uganda (1995). These Constitutions guarantee equality before the law and non-discrimination, while some also mandate their respective States to embark upon affirmative-action measures to remedy existing imbalances between males and females in the social, economic, political and civil spheres of society.

Regional efforts at meeting the MDGs were assessed at the MDGs Summit in September 2010. The Summit provided an opportunity to reflect on the relationship between gender inequality and the MDGs. The United Nations World Summit in 2005 recognized the importance of achieving MDG3 through gender equality in education, non-agricultural employment and participation in decision-making. The Summit also reiterated the importance of promoting women's right to own and inherit property; ensuring tenure of property and housing, and equal access to productive assets and resources, including land, credit and technology; ensuring universal access to reproductive health; and eliminating all forms of discrimination and violence against women and girls.

(ii) Challenges and constraints

In spite of the progress in implementing commitments on gender equality and women's empowerment, challenges and constraints remain. The region still suffers from a paucity of gender-disaggregated data; gender budgeting is still not adequately encouraged; there are significant gender gaps in health, employment and wages; and cultural barriers still block effective utilization of women's talents. Labour-market conditions restrict women's access to education and social and cultural barriers are still major impediments to the participation of the vast majority of women who face income and job insecurity. Women constitute a majority of the agricultural workforce in the region, producing about 80 per cent of its food, yet they own less than one per cent of the land on which they work. They and their children are often the first to suffer the effects of economic downturn, drought, famine and violent conflict.

The mechanisms for the integration of gender equality and women's empowerment into development strategies, policies and programmes still remain weak at all levels, lacking adequate capacity, authority and funding. Line ministries have not reached gender equality targets due to low levels of resource allocations. Gender concerns continue to be treated rhetorically or as separate women's projects. Gender-disaggregated data and information from gender-sensitive indicators are often not collected, lost in the aggregation of published data, or not used.

Women in the region experience greater challenges in accessing decent jobs than men. The number of women in employment in the formal sector is still lower and their pay is on average lower than men's pay for the same work. The difference between female and male employment-to-population ratios was 22.7 percentage points in 2007, as it was in 1997 (ILO, 2008). The gap for youth stood at 14.5 percentage points in 2007, almost unchanged from 1997.

While employment has increased more rapidly for women than for men over the last decade, women tend to be overrepresented in low-income, less secure employment. In addition, insufficient jobs are being created to absorb the additional arrivals on the labour market and, as a result, women are also overrepresented among the unemployed. Women continue to face considerable barriers in the region's labour markets as a result of lack of education, inadequate access to training, discrimination, and cultural attitudes about their role in the workplace.

Women's economic empowerment is measured through their share in wage employment in the non-agricultural sector as part of MDG 3. So far, since 1990, none of the countries for which recent data are available has reached the 50 per cent gender parity in waged employment. The countries that were closer to reaching the parity target of 50 per cent in 2004 were: South Africa (45.9 per cent); Botswana (43 per cent); and Ethiopia (40.6 per cent). Namibia had a score of 48.8 per cent in 2000 and, if the trend was sustained, may have reached parity. The major challenges affecting the achievement of gender parity in formal employment include the low educational level of women and girls; lack of skills; labour laws that still disadvantage women in most countries, and the continuous heavy burdens of unpaid domestic work, child-bearing and childcare, which restrict the time and energy available for income-generating activities.

(iii) Lesson learned and way forward

Gender equality is non-negotiable and embedded in all human rights instruments. However, the reality is that it has to be negotiated, especially at the community level. Just as stereotypes are internalized, new attitudes towards gender equality need to be internalized. The region has invested in de jure equality through reforms, but de facto equality is still lacking. Women's empowerment and gender equality drive economic growth, businesses and progress but, although there are many differences and divides between rich and poor countries, all are facing challenges in implementing the internationally agreed commitments on gender equality (e.g. CEDAW, the 12 critical areas of the Beijing Platform for Action, the MDGs, and the Education for All goals) and can learn from each other. There is a need for more peer review, sharing of experiences at the local, national and regional levels, and collaboration among stakeholders, especially the public and private sectors. Qualitative and quantitative data, statistics and new forms of measurement are important and powerful tools for creating and communicating evidence-based and context-specific policies and programmes that support gender equality, while culture and technological innovation can both be drivers for transforming gender roles and relations.

The region must step up its implementation of the agreed commitments on gender equality and women's empowerment. The AU Gender Policy Framework, the Framework for Engendering NEPAD and RECs and the AU Protocol on the Rights of Women in Africa must all be vigorously implemented and performance monitored. There is a need to support women's press and communication initiatives. Women should be empowered to play a prominent role in the formulation and implementation of environmental policies. NEPAD will need to ensure that the economic empowerment of women is one of the priorities of its social and economic agenda. Culturally sensitive programmes must be initiated that entrust men and boys with responsibilities for promoting gender equality and girls'/women's empowerment. Technological developments related to climate change should take into account women's specific priorities, needs and roles, and make full use of their knowledge and expertise, including indigenous knowledge and traditional practices. Women's involvement in the development of new technologies can ensure that they are user-friendly, affordable, effective and sustainable. Gender inequalities in access to resources, including credit, extension services, information and technology, must be taken into account in developing activities designed to curb climate change. Women should also have equal access to training, credit and skills-development programmes to ensure their full participation in climate change initiatives (CWS, 2008).

The need to generate quality gender-disaggregated data in order to monitor progress in achieving gender equality is equally essential. Development partners should ensure that adequate finances directed towards supporting African partners translate gender equality commitments into concrete policies, actions and programmes.

There is a need to adjust human development ratings for gender equality in order to encourage countries in the region to do more to show results. Achieving the goal of gender equality and women's empowerment is not the crucial aim of gender equality commitments. The main aim is to draw on the vast skills, knowledge and energy of women, which are currently grossly underutilized, to promote growth and development.

(d) Health

(i) Concrete action taken and progress made

The race to reduce infant and maternal mortality by 2015 is being won in the region, but has required enormous efforts to overcome the obstacles.

There have been impressive results in infant mortality reduction. Rates have improved across all subregions, but more in countries with better social and economic conditions, that are free of conflict and drought, and relatively free from the scourges of HIV/AIDS, malaria and tuberculosis. Mozambique has achieved a reduction of over 70 per cent, Malawi one of 68 per cent, and Niger a 64 per cent reduction. A small number of countries still had relatively high mortality rates in 2009, however. These included Guinea Bissau, Mali and Sierra Leone, as a result of challenging social and economic conditions. Maternal mortality rates have also fallen. Countries such as Burkina Faso, Burundi, Cape Verde and Egypt have reported significant reductions. Efforts are therefore yielding good results and need to be boosted. It is in this context that at the AU Summit in July 2010 the region's leaders pledged to increase financial and political support for female and child health and to continue to work closely with interventions such as the Campaign on Accelerated Reduction of Maternal Mortality in Africa (CARMMA).

There has been a slight decline in total fertility rates over the past decades in all West African countries, indicating that the overall impact of population control measures was positive, though marginal. All West African countries had total fertility rates of more than five children per woman in 1990, but three countries – Cape Verde, Ghana and Senegal – managed to reduce their fertility rate to below five children per woman in 2009. Overall, efforts at controlling population in the subregion appeared low compared to other subregions, suggesting the need to do more to achieve the MDGs.

Significant progress has been made in the elimination of river blindness, polio, measles, guinea-worm disease and mother-to-child transmission of HIV/AIDS. Routine immunization is progressing across the region and several new vaccines, including for meningitis and pneumococcal disease, are being introduced and yielding beneficial results. These results have been possible as a result of government policies and programmes and support by the international community through innovative funding mechanisms such as the Global Alliance for Vaccinations and Immunization (GAVI) and the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria, and interventions by agencies such as UNAIDS, WHO and the World Bank, as well as support for successful regional health programmes such as the African Programme for Onchocerciasis Control (APOC), SMS for Life, and the Roll Back Malaria Partnership, among other, silent, initiatives that are yielding beneficial results.

Progress has also been made in the fight against malaria. The results have been encouraging: distribution of insecticide-treated mosquito nets has protected more than 578 million people at risk of contracting malaria in sub-Saharan Africa; 11 countries in the region have reduced the number of confirmed malaria cases by about 50 per cent, and the majority of countries are now on track to rolling back the advance of the disease by 2015.

Health targets are within reach by 2015, if African governments and the international development community live up to their pledges. There is indeed substantial goodwill within the donor community. In June 2010 leaders at the G8 Summit pledged to mobilize US$ 5 billion to accelerate progress in the achievement of MDGs 4 and 5 as part of the Muskoka Initiative to cut down maternal and new-born mortality in poor countries. The September 2001 MDG Review Summit saw world leaders and other development stakeholders pledging to provide a total of US$ 40 billion for health over the next five years. The replenishment meeting of the Global Fund in October 2010 raised US$ 11.7 billion for the period 2011-2013, an increase from US$ 9.7 billion for the 2008-2010 programme phase. New commitments to GAVI were announced by a number of donors ahead of its replenishment meeting. African governments in 2001 signed the Abuja Declaration, which enjoined countries in the region to allocate 15 per cent of their public expenditure to health.

(ii) Constraints and challenges

The health sector in the region is faced with a number of constraints and challenges. Firstly, there are serious leadership and governance challenges that include weak public health leadership and management; inadequate health-related legislation and enforcement; limited community participation in planning, management and monitoring of health services; weak inter-sectoral action; horizontal and vertical inequities in health systems; inefficiency in resource allocation and use; and weak national health information and research systems. Secondly, there are extreme shortages of health workers in 36 countries in the region. The crisis has been exacerbated by inequities in workforce distribution and the brain drain. Thus, the delivery of effective public health interventions to people in need is compromised, particularly in remote rural areas.

Thirdly, there is rampant corruption in medical product and technology procurement systems, unreliable supply systems, unaffordable prices, irrational use, and wide variance in quality and safety. This has contributed to the current situation in which 50 per cent of the population in the region lacks access to essential medicines. Fourthly, there is a dearth of ICT and mass Internet connectivity, despite the massive cell phone penetration, compounded by a paucity of ICT-related knowledge and skills, limiting capacities of national health management information systems to generate, analyse and disseminate information for use in decision-making.

Fifthly, health financing in the region is characterized by low investment in health, lack of comprehensive health financing policies and strategic plans, extensive out-of-pocket payments, lack of social safety nets to protect the poor, weak financial management, inefficient use of limited resources, and weak mechanisms for coordinating development partners' support. Lastly, in terms of service delivery, the lack of effective organization and management of health services combined with the above-mentioned challenges has led to the current situation in which 47 per cent of the population have no access to quality health services, and 59 per cent of pregnant women deliver babies without the assistance of skilled health personnel. As regards water and sanitation, which contribute to reducing the burden of communicable diseases, 64 per cent of the population lack sustainable access to improved sanitation facilities, and 42 per cent lack sustainable access to an improved water source.

(iii) Lessons learned and way forward

Given the continuing constraints and challenges facing health care and service delivery in the region, countries should be supported to vigorously implement the Ouagadougou Declaration, which proposed ways of addressing health system challenges. It will be recalled that the Declaration urges Member States to update their national health policies and plans according to the primary health care (PHC) approach; promote inter-sectoral collaboration and public-private partnership to address broad determinants of health; improve health workforce production and retention; set up mechanisms for increasing availability and accessibility of essential medicines, health technologies and infrastructure; strengthen health information systems; develop and implement strategic health financing policies and plans; promote health awareness and build behavioural change capacities among communities.

Also requiring sustained implementation is the framework endorsed by the 58th WHO Regional Committee for Africa for translating the Ouagadougou Declaration into concrete results. The framework proposes generic interventions for addressing health system challenges. Firstly, regarding leadership and governance, it proposes updating national health policy and strategic plans; updating and enforcing public health laws; and strengthening mechanisms for transparency and accountability and inter-sectoral collaboration. Secondly, concerning human resources for health (HRH), it recommends the generation and use of evidence in HRH policy development, planning and management; reinforcing health training institution capacity; strengthening HRH leadership and management capacities; implementing HRH retention strategies; and increasing fiscal space for HRH development.

Thirdly, with regard to medical products and technologies, it proposes developing formulae for determining and forecasting the requirements for medicines, commodities, essential technologies and infrastructure; and creating a transparent and accountable procurement system. Fourthly, with regard to health information and research, the Declaration on Primary Health Care and Health Systems suggests developing and implementing a comprehensive health management information systems (HMIS) policy and strategic plan; and establishment of a functional national HMIS by leveraging ICT. In addition, the Algiers Declaration recommends development and retention of a critical mass of human resources for health research; updating national health research policies and strategic frameworks; strengthening South-South and North-South research cooperation; establishing mechanisms for scientific and ethical oversight of research; acquisition of ICT for research and information; and allocating to research at least 2 per cent of national health expenditure and at least 5 per cent of external aid for health.

Fifthly, with regard to health financing, it recommends developing a comprehensive health financing policy and a strategic plan; institutionalizing national health accounts and efficiency monitoring; strengthening financial management skills at all levels; allocating at least 15 per cent of the national budget to health development; implementing the Paris Declaration on aid effectiveness; and developing social protection mechanisms. Lastly, as regards service delivery, the Declaration proposes building on the elements of essential health services, mode of delivery and costs; developing norms, standards and procedures for service provision and health infrastructure construction and maintenance; formulating an integrated service delivery model at all levels, including the referral system; developing mechanisms to involve all private health providers in the provision of essential health services; developing and implementing multi-sectoral health promotion policies and strategies to optimize community involvement in health development.

Effective public health interventions are available to curb the heavy disease burden in Africa. Unfortunately, health systems are too weak to deliver those interventions efficiently and equitably to the people who need them when and where they are needed. Fortunately, guided by the lessons of experience, the region's health policymakers know what actions ought to be implemented in order to strengthen health systems. However, it might not be possible to implement those actions adequately without a concerted and coordinated fight against corruption; sustained domestic and external investment in social sectors (e.g. health, education, water and sanitation); and an enabling macroeconomic and political environment.

When responding to the challenges in the health sector, it should be borne in mind that one size in terms of infrastructure and approach does not necessarily fit all countries. Country contexts differ and need to be taken into account. A rational, flexible approach to resource allocation and service delivery informed by a nationwide situational analysis is needed to ensure more effective and efficient health-care delivery at all levels. Consequently, an approach that supports decentralization, community empowerment, and inclusive partnership, is very often preferred. Experience has also shown that suitable remuneration schemes are required to attract and retain qualified health workers in rural areas. Appropriate financing mechanisms can go a long way towards improving service delivery, as exemplified by the success of Liberia's Health Sector Pool Fund, which provides a valuable lesson for other low-income countries in the region seeking to increase direct budgetary support, strengthen country ownership, and expand financial transparency in their health sectors.

It is of the utmost significance that countries in the region have started to rely increasingly on domestic resources to finance national health-care delivery and to strive to meet the commitment put forward by the Abuja Declaration, which calls on Member States to commit 15 per cent of total government expenditure to health. A substantial health delivery gap remains in the rural communities in the region and needs to be bridged. A responsive and cost-effective rural health-care delivery strategy, which should form the backbone of the national health sector strategy, should be implemented. Rwanda has demonstrated that by using community health workers coverage of rural populations can be achieved for as little as US$ 3 per person per year (Rich, 2011). Better information and data management systems are required at all levels of national health systems. This will greatly facilitate effective sector planning and improved operation. Many aspects of care delivery, including community-based care, decentralization, and hospital referral information, remain undocumented and unavailable to health providers and policymakers. The paper-based data that do get collected tend to remain fragmented between consultants and various working groups, and are seldom available in a useable form. Standardized methods of data collection, and, ideally, a robust national health database, would help policymakers make informed decisions, as well as encourage a process of continuous improvement in availability of, and access to, cost-effective and efficient health-care delivery.

(e) Access to water and sanitation

(i) Concrete action taken and progress made

Access to water and sanitation is a key element in sustainable social development. It was in recognition of its importance that the eThekwini Declaration was made by African leaders to allocate 0.5 per cent of gross domestic product to water and sanitation, and that the African Ministers' Council on Water and the African Water Facility were set up. In order to guide the region's investment, AfDB, which implements a Rural Water Supply and Sanitation Initiative, estimated that an investment of US$ 11 billion annually would be required to meet the region's drinking water supply and sanitation needs. Emphasis on water and sanitation was also driven home in July 2010 when the United Nations General Assembly declared access to clean water and sanitation a human right.

Progress is being made towards attaining the goal of halving the proportion of the region's population without sustainable access to clean drinking water by 2015. At present, 26 countries are on track to attaining this goal and nine are expected to meet the MDG target of halving the proportion of the population without sustainable access to basic sanitation by 2015. These countries are Algeria, Angola, Botswana, Egypt, Libya, Morocco, Rwanda, South Africa and Tunisia. At present 60 per cent of the population of sub-Saharan Africa has access to improved sources of drinking water (in Cape Verde and the Gambia the proportion is more than 80 per cent) and less than half has access to basic sanitation facilities. These statistics point to the need to step up investment, as the challenge is not only that some 40 per cent live in water-deprived areas, but that the amount of water available per person in the region is below the global average and is declining due to falling levels of groundwater resulting from climate change and overexploitation. The population/water ratio provides a measure of water adequacy or shortage. In terms of needs, 1,700 cubic meters per person is the national threshold for North African countries to meet water requirements in agriculture, industry, energy and the environment. With the exception of Mauritania, all North African countries are significantly below the national threshold. Access is at about 500 cubic meters per person. Falling water levels due to drought resulting from climate change is projected to exacerbate the present situation. Water levels and availability will drop by a quarter between 2011 and 2025. This calls for better and equitable management of water resources in order to avoid possible conflicts that could arise, especially over Nile water.

Current investment by governments, which stands at 0.2 per cent of GDP as against the 0.5 per cent put forward by the eThekwini Declaration, means that the target of US$ 11 billion is not being met. Also needed are improved governance of the water sector; better management of national sources, the 63 shared water basins, and the irrigation needs of the agricultural sector; and capacity to drill for water and maintain water infrastructure, especially in rural communities.

(ii) Constraints and challenges

Some of the constraints and challenges facing the provision of water and sanitation in the region centre on inadequate financial resources and poor governance. The African Ministerial Council on Water (AMCOW) has estimated that the annual funding gap for investment in the rural water supply and sanitation sector in Africa is at least US$ 7 billion. This excludes the needs of urban areas, which have been the main beneficiaries of most investment in the sector. A resource commitment of more than US$ 15.4 billion per year is required. This compares with a total of US$ 8.6 billion committed by governments, NGOs and the region's development partners, and a clear pointer to the fact that the public sector alone cannot meet the water and sanitation needs of the region. Substantial private sector investment is needed.

In its Water Sector Governance in Africa Report, 2010, AfDB noted that poor governance is a major factor in the lack of sustainability in the water and sanitation sector. The report notes that substantial gains would be made if standard procedures and clear governance criteria were applied to water and sanitation management processes. The sector is inherently weak in terms of underlying policies, legislation and regulations, which provide the foundation for its overall governance.

Some of the key roles that institutions and organizations in the sector need to play in developing and implementing legislation, policies and regulations include strategic policymaking and planning for water and related sectors; conflict resolution and arbitration; and the regulation and monitoring of water users and service providers. Good governance in the sector is just as important as financial requirements. It has been observed in the region that stable low-income countries have made much greater progress than countries rich in natural resources (AMCOW). There is thus a need for countries to improve governance in the sector.

(iii) Lessons learned and way forward

Significant improvement could be made by countries through improved water and sanitation governance. Countries should be supported to strengthen governance in the sector and strive, as a minimum, to meet the commitment made in eThekwini to allocate five per cent of their national expenditure to water and sanitation. Meeting this commitment has the potential to catalyze additional funding from development partners to meet the financing gap in the sector.

(f) Food security and hunger reduction

FAO defines food security as consisting of four main components: food availability, accessibility, utilization and system stability. Thus, in order for the region to be food secure, the population must have access to safe, nutritious, quantitatively and qualitatively adequate food to meet its dietary needs and food preferences for an active healthy life. More than 60 per cent of the population of the region depends on agriculture, which is largely rain-fed. Only six per cent of agricultural land is under irrigation, compared with about 38 per cent in Asia. This means that agriculture is severely threatened by climate change, and that it is essential to apply modern science and technology, including biotechnology, in order to improve agricultural productivity, if food security is to be achieved.

African leaders have given priority to food security, and have set the overall objective of reducing by half the number of undernourished people in the region by 2012 and eradicating hunger and malnutrition. They have pledged to support agricultural development and made a number of specific commitments at AU Summits to strengthen information and early warning systems, support national and regional initiatives to establish emergency food reserves and strengthen the logistics capacity to transport them, and invest in appropriate safety net systems in countries vulnerable to food insecurity. Development partners have also prioritized food security and committed to supporting agricultural development with attention to smallholders, women and young farmers.

(i) Concrete action taken and progress made

Countries in the region are making progress towards meeting the MDG target of reducing extreme hunger by 2015. The region is working to address the food insecurity and hunger challenge through a number of agricultural initiatives, including CAADP, and the Alliance for a Green Revolution in Africa (AGRA), which is helping to initiate financial partnerships and risk-sharing instruments with a number of institutions in order to mitigate the risk of lending by commercial banks and other financial institutions to smallholder farmers and the value chains that support them. International responses have also been robust. They include the G8 L'Aquila Food Security Initiative (AFSI), the Global Agriculture and Food Security Programme, and the World Bank's Global Food Crisis Response Programme. There are attempts to create greater transparency around the food stocks held by large exporters in order to avoid panic caused by market uncertainty about the availability of commodities.

Many countries have set up national food security stocks or strategic grain reserves, food, cash or employment based safety nets, and early warning systems. Progress at the regional level has been slower, although ECOWAS and its member countries have developed an important pilot project for a targeted regional emergency humanitarian food reserve system based on physical and financial mechanisms to complement existing national food reserves. AU/NEPAD has developed a roadmap on the integration of risk management into the CAADP national and regional investment plan, and AU has developed an African Risk Capacity Project. In response to the crisis in the Horn of Africa, AU convened a pledging conference in August 2011 which mobilized US$ 351.5 million in cash and US$ 28 million in kind. AU has also developed a draft long-term strategy to address food and nutrition, putting CAADP at the centre of achieving long-term food security.

With respect to support by development partners, around a quarter of the AFSI pledges of US$ 22 billion have been disbursed, a further quarter is on track to be disbursed, and the full total is expected to be disbursed or allocated by the end of the AFSI period. About US$ 6 billion represents new commitments. The World Bank's Global Food Crisis Response Programme was extended to mid-2011 in order to address continuing high global food prices. Seventeen of the 27 trust fund beneficiary countries are African. Reforms of the multilateral architecture for food security have progressed, including reform of the Committee on World Food Security and the establishment of the Global Partnership for Agriculture, Food Security and Nutrition. There has been major focus on food security within the G20 process. Following recommendations from international organizations, G20 agriculture ministers developed an Action Plan on food security and price volatility for endorsement at the G20 summit in November 2011. Priorities include strengthening long-term productivity, resilience and sustainability; launching a global Agricultural Market Information System to increase market information and transparency; developing tools to mitigate risks and cope with the consequences of price volatility; and improving the functioning of agricultural commodity derivatives markets. There are a number of ongoing initiatives to expand innovative risk management tools. Development partners have provided US$ 1.6 billion in response to the United Nations appeal for US$ 2.5 billion in emergency assistance to the Horn of Africa.

(ii) Constraints and challenges

As the region's food insecurity and hunger challenge existed before the rise in food prices, there is a need to address structural barriers to food security. Some of these, which the Rio+20 summit will need to revisit, are the disadvantages the region faces with respect to international trade rules and agricultural subsidies; constraints to productivity arising from poor infrastructure, insufficient agricultural research and extension services; and lack of improved seeds, fertilizers and plant protection material. Other factors include poor soil and water management; poor access to credit and marketing services; inefficient and wasteful agricultural value chains; and loss of production due to conflict and diversion of food products to the production of biofuels. In order to address the food insecurity challenge, the region needs to scale up investment in agriculture and related infrastructure. African countries must meet the minimum level of investment put forward under CAADP. Focus on smallholder farmers needs to be intensified.

(iii) Lessons learned and way forward

Despite its agricultural potential, the region remains a net importer of food and some subregions have been particularly vulnerable to food shortages. The IFPRI Global Hunger Index showed some progress in hunger reduction in most African countries between 1900 and 2007. However in 2010, FAO reported that an estimated 239 million were undernourished in SSA. In the Horn of Africa the most severe drought in 60 years has affected more than 13 million people. Based on current trends, Africa will be unable to meet the MDG 1 target of halving the proportion of people who suffer from hunger by 2015.

In response to continuing challenges facing food security in the region, there is a need to step up regional coordination on early warning systems, especially at the level of the RECs, place emphasis on building food stocks for emergency use, and scale up safety net programmes in countries vulnerable to food price fluctuations and climate shocks. In addition market-based mechanisms and financial instruments need to be developed in order to manage risks and smooth food import costs. Barriers to intraregional trade in agricultural products should be addressed in order to open up markets so that food can flow from surplus to deficit areas. It is common knowledge that unjustified sanitary and phytosanitary requirements imposed by countries in the region have become major impediments to regional agricultural trade. Other factors include high import tariffs within the region, and indiscriminate bans on the export of staple crops. COMESA and ECCAS have common external tariffs of about 20 per cent, while AMU and ECOWAS have an average of 17.6 per cent and 16.9 per cent respectively (Ranoto and Letsoalo, 2006). It has also become imperative for the region to integrate climate change and increased climate variability in food security strategies.

(g) Youth unemployment

Every year, some ten million new graduates join the labour market in Africa. Although the region has in recent years experienced impressive economic growth, it has not generated meaningful employment. The result is growing youth unemployment, which has implications for social development. Youth unemployment is now a major social development challenge and was one of the factors in the demand for political reform that swept through much of North Africa in early 2011. In addition to rising unemployment, labour markets have not been flexible enough to absorb the growing supply of young workers. Given the region's rapidly growing population, the demographic pressure on labour markets is set to continue in many countries in the region.

The dynamics and causes of youth unemployment in Africa are complex and multidimensional. Youth (those between 15 and 24) represent more than 60 per cent of the region's total population and account for 45 per cent of the total labour force. Unlike other developing regions, sub-Saharan Africa's population is becoming younger, with youth as a proportion of the total population projected to be over 75 per cent by 2015, due to the high fertility rate underlying the demographic momentum. It is expected that this increase in the number of youth will not decline for 20 years or more. The incidence of youth unemployment in sub-Saharan Africa is estimated to be over 20 per cent. It is also estimated that about 133 million youth (more than 50 per cent of the youth population) in Africa are illiterate. Many have few or no skills and are therefore largely excluded from productive economic and social life. Those with some education often have skills irrelevant to current demand in the labour market, this in a context in which educational and skill requirements are increasing. The result is millions of unemployed and underemployed youth. University graduates are the most affected by youth unemployment. This has led many to question the capacity of higher education institutions in the region to provide youth with skills and knowledge adapted to the needs of the labour market. The link between youth unemployment and social exclusion has been clearly established: inability to find a job creates a sense of vulnerability, uselessness and idleness among young people and can heighten the attraction of engaging in illegal activities. For many young people today being without work means being without the chance to work themselves out of poverty (ILO, 2004).

By including youth unemployment in the MDGs, the Millennium Declaration had an important and catalytic impact on drawing international attention to the problem of unemployed young people. Under target 16 in Goal 8, the resolution "to develop and implement strategies that give young people everywhere a real chance to find decent and productive work" is the only explicit reference to youth in the MDGs (UNDP, 2006). The ILO recently released a frightening report on unemployment worldwide. It indicated that more than 1.5 billion people, or half the world's working population, are in vulnerable or insecure jobs and that 205 million workers were unemployed last year. According to the ILO, the official figure is probably an underestimate because many people have given up searching for a job. The most unsettling aspect of the report is that 77.7 million young people between the ages of 15 and 24 are unable to find work. This is a major challenge for the region. There are 200 million Africans in this age bracket, comprising more than 20 per cent of the region's population. In sub-Saharan Africa, about 60 per cent of the unemployed are youth, and an average of 72 per cent of youth live on less than US$ 2 a day.

(i) Concrete action taken

The region is making efforts to rise to the challenge of youth unemployment, albeit inadequately given the challenges facing growth. The 17th AU Summit, held from 30 June to 1 July 2011 in Malabo, Equatorial Guinea, was devoted to the theme "*Accelerating Youth Empowerment for Sustainable Development*". Some recent major AU meetings, in particular those of March 2010, April 2011 and July 2011, successively provided opportunities to raise themes relating to youth unemployment. These touched on employment policies and their financing with a view to reducing unemployment; social policies and the promotion of youth employment; and the acceleration of youth empowerment. The declaration on youth employment, in Yaoundé, Cameroon, at the 8th Session of the African Union's Labour and Social Affairs Commission (LASC), called upon the 17th Assembly of AU Heads of State and Government to promote youth employment. The determination of AU leaders to improve the employment situation will undoubtedly reinforce the commitment made in Yaoundé by Ministers of Labour and Social Affairs, AU employers and trades unions to reduce unemployment of young people and women by at least two percent a year over five years, and to harmonize labour market information systems by supporting the development, implementation and evaluation of employment policies.

The 17th AU Summit provided an unprecedented opportunity for African Heads of State and Government, as well as young men and women, to participate in an open and frank debate on sustainable solutions to the concerns of the region's youth. Some of the proposals included: increased investment in education and training; increased investment to improve the integration of young people into economic, political and social life; introduction of vocational training that meets labour market needs; and promotion of grass-roots participation in decision-making processes. These strategies could form "a development incubator" by permitting reduced social deprivation, improving the competitiveness of the education system and promoting youth empowerment.

(ii) Challenges and constraints

The main challenge facing youth unemployment is jobless economic growth in the region. Structural constraints need be addressed to shift growth to sources that are employment-generating. Other factors include new graduates' inexperience and lack of skills, and lack of youth development programmes and youth development funds to promote acquisition of new competencies and encourage youth to become employers rather than depending exclusively on paid employment. Also lacking are platforms that afford youth opportunities to contribute solutions to development challenges.

(iii) Lesson learned and way forward

A comprehensive approach is needed to address the problem of unemployment in general and youth unemployment in particular. Improvements are needed both on the supply and the demand sides of labour markets. More needs to be done to improve the quality of labour supply so that it better matches employers' skills requirements. This is particularly the case of most university graduates who are vulnerable to unemployment as their skills do not match job requirements. At the same time, labour demand needs to be boosted by further improving conditions for economic growth in general and for private sector activity in particular, including through the creation of new business enterprises.

(b) *Strengthening indigenous knowledge*

Some responses to social development challenges reflect innovations in the use of knowledge that improves the quality of life of a people or region. This is where indigenous knowledge connects with social development. Communities identify themselves easily with indigenous knowledge systems that have enabled them to live in harmony with their environments for generations. These knowledge systems are important tools in environmental conservation and natural disaster management. The global scientific community acknowledged the relevance of indigenous knowledge at the World Conference on Science, held in Budapest, Hungary, from 29 June to 1 July 1999, by recommending that scientific and traditional knowledge should be integrated, particularly in the field of environment and development. UNEP recognizes the role of indigenous knowledge in the conservation of natural resources and management of natural disasters (UNEP, 2008). Knowledge and access to information are essential for effective environmental management and have significant impacts on the economy and the livelihood choices people make. Indigenous knowledge systems based on centuries of observation and continuous development in response to changing social and environmental conditions are an important resource for many rural people.

Indigenous knowledge, particularly agricultural and environmental knowledge, gained international recognition after the Rio summit in 1992. Agenda 21 emphasizes that governments and intergovernmental organizations should respect, record and work towards incorporating indigenous knowledge systems into research and development programmes for the conservation of biodiversity and the sustainability of agricultural and natural resource management systems. Other international documents, such as the 1980 World Conservation Strategy by the International Union for the Conservation of Nature and Natural Resources (IUCN), also paved the way for recognition of the important role played by indigenous knowledge in biodiversity and human development. The value of indigenous knowledge systems in facilitating development is now gradually being recognized by governments and development agencies (UNEP, 2008).

Although in the implementation of sustainable development commitments, little attention has been paid to growing and applying indigenous knowledge in the region, this knowledge is still very much intact among indigenous (or local) communities in many parts of Africa. A survey by UNEP (2006) of four countries –Kenya, South Africa, Swaziland and The United Republic of Tanzania – provided invaluable information on the application of indigenous knowledge in environmental conservation and natural disaster management. The study found that indigenous knowledge systems had enabled the various communities in those countries to live in harmony with their environment for generations, and the systems are important tools in environmental conservation and natural disaster management. Nearly all the communities had powerful structures that exercised authority to ensure smooth compliance with the observances and rules of indigenous knowledge. The study provided useful insights into how those communities interacted with their environment. It documented the various ways the communities relied on indigenous knowledge to utilize natural resources sustainably. The indigenous knowledge systems provided them with a variety of options and innovations for dealing with the challenges of nature conservation and disaster management in the course of making a living. The knowledge systems were particularly evident in agricultural production, food preservation and storage, health care, and dealing with natural disasters.

Through indigenous knowledge, communities in the region have been able to protect and manage ecosystems, face many natural hazards, grow drought-resistant and early-maturing indigenous crop varieties, gather wild fruits and vegetables, and practise wetlands cultivation, livestock diversification and splitting, which have enabled them to survive food, nutrition, health-care and climatic challenges with little or no support from the outside world. The communities were well aware of the disasters that faced them and in most cases had the knowledge and administrative structures to cope with them. At the same time, they knew that a well-conserved environment helped them reduce risks associated with natural disasters. Each community had an array of early warning indicators and well-developed structures through which the wisdom of the community was applied to deal quickly and efficiently with disasters.

With the growing number of African governments and international development agencies now recognizing that local knowledge and organizations are a vital foundation for participatory approaches to sustainable and cost-effective development, the region stands to gain much by exploiting its application on a much wider scale. Strengthening the framework for developing, applying and sustaining indigenous knowledge will prevent loss of this asset, which is invaluable to social development. The region's older generation, the traditional custodians of indigenous knowledge, are dying off without leaving written records of their knowledge, at the same time as rapid environmental, socio-economic and political changes are occurring in many communities in the region, which place indigenous knowledge in danger of extinction and obliteration by globalization and new technologies (UNEP, 2008).

There is a role for indigenous knowledge in sustainable development, especially social and environmental sustainability. Consistent with what UNEP (2008) has recommended, such knowledge needs to be documented and shared through indigenous knowledge databanks and networks. Indigenous knowledge should be incorporated into national development plans and included in educational curricula. Efforts should also be made to integrate indigenous knowledge systems with modern knowledge, and appropriate laws should be enacted to protect intellectual property in indigenous knowledge (UNEP, 2008).

(i) Challenges and constraints

The integration of indigenous knowledge with scientific knowledge is a challenge confronting the sustainable development process. There have been inadequate incentives to pursue integration vigorously on both sides – the indigenous and scientific communities. Modern science is acceptable to indigenous communities, if it is consistent with what they already know. For example, they may find scientific weather forecasts more credible if ways are found to integrate them with the indigenous knowledge they have relied on for generations to predict and cope with droughts, floods, and other natural hazards. An instance of this is peasant farmers who listen to weather forecasts on radio by the meteorological department but still prefer to rely on their own traditional knowledge of when to start planting. The more the scientific forecast deviates from traditional knowledge, the less indigenous communities use it for planning purposes.

Indigenous knowledge provides valuable insights into how communities have interacted with their local environment. Unfortunately, indigenous knowledge systems in Africa have not been systematically recorded and are therefore not readily accessible to policymakers, researchers and development agents, although several analysts have provided detailed overviews of indigenous knowledge systems in agricultural development, pastoral management, and agro-forestry (Babu, 1991). This "uncertain status" of indigenous knowledge is of great concern.

A related problem is loss of indigenous knowledge. Apart from the fact that the older generation, the traditional custodians of indigenous knowledge, is dying off without leaving written records of their knowledge, rapid environmental, socio-economic and political changes in many African communities put indigenous knowledge in danger of being overwhelmed by globalization and new technologies (UNEP, 2008).

(ii) Lessons learned and way forward

Indigenous knowledge has a role to play in environmental sustainability. Such knowledge needs to be documented and shared through indigenous knowledge databanks and networks. Indigenous knowledge should be incorporated into national development plans and included in educational curricula. Efforts should also be made to integrate indigenous knowledge systems with modern scientific knowledge, and appropriate laws should be enacted to protect intellectual property in indigenous knowledge.

(i) Strengthening the indigenous population

Indigenous and tribal peoples and ethnic minorities are among the poorest and most marginalized peoples in the world. They are disproportionately represented among the rural poor. Many of the poorest groups of indigenous peoples are difficult to reach through mainstream development programmes. Several recent assessments show that the poverty gap between indigenous peoples and other rural populations is increasing in some parts of the world. In addition, indigenous peoples generally score lower on the Human Development Index – the measure of life expectancy, literacy, education and standard of living for countries worldwide. This is particularly true for indigenous women. Indigenous peoples are often disempowered by a lack of recognition of their cultural and socio-political systems. This undermines their social capital and ability to shape their future. Indigenous peoples have ancestral bonds with their land, territories and natural resources, which are also the basis of their livelihoods. But they are frequently threatened by encroachment, dispossession and lack of respect for and protection of their rights. In many cases, socio-economic changes and official policies have weakened their governance institutions, especially those responsible for natural resource management. Indigenous peoples are often at a disadvantage in capturing market opportunities. These factors of poverty affect both men and women, but women are often more vulnerable to poverty, disempowerment and exploitation (IFAD, 2011).

Building on the strength and values of indigenous peoples is about expanding their opportunities to pursue developmental goals that they themselves value, both collectively and as individuals, and to continue to play their roles as stewards of biodiversity and holders of unique cultural heritages. Listening to indigenous peoples, both women and men, and involving them in making decisions about their future, are key elements of an effective response. Biodiversity also comes in the form of the wealth of knowledge on the environment that indigenous peoples and communities possess. Indigenous knowledge comprises: an understanding of wild ancestors of food, medicinal plants and domestic animals; a symbiotic relationship with ecosystems; and an awareness of the structure of ecosystems and the functionality of specific species, as well as the geographic ranges of said species. In order to preserve biodiversity further and limit its degradation, indigenous peoples can and should play a leading role in the global response to climate change. This should be particularly emphasized with regard to indigenous women, who play a vital role as stewards of natural resources (PFII, 2008). Greater involvement of indigenous communities and indigenous women further validates the significance of their knowledge.

Concrete action taken and progress made

For more than 30 years, IFAD has supported programmes and projects that benefit indigenous peoples through its targeted approach to rural development. Since 2003, an average of 22 per cent of IFAD's annual lending has supported initiatives for indigenous peoples, mainly in Asia and Latin America. IFAD believes that indigenous peoples should be free from marginalization and able to lead the kind of life they value (IFAD, 2011).

Much of IFAD's support to indigenous peoples has been directed at developing their livelihoods and strengthening their institutions, as well as empowering them to influence the decisions that affect their lives. Over the years, IFAD has learned that capacity-building and self-determined development can be considerably improved by entrusting indigenous communities with the direct management of resources and funds. In September 2007, the United Nations General Assembly adopted the Declaration on the Rights of Indigenous Peoples. This historic achievement validates the worldwide struggle of indigenous peoples for human rights and equality. It provides them with an international instrument that supports the preservation of their cultures and heritage, and strengthens their ability to shape and direct their own destinies, both collectively and as individuals (IFAD, 2011).

(j) Culture and societal value systems

Culture is a summation of the way of life of a people. It is their system of thought, philosophies, sciences, beliefs, arts and languages and thus covers their social, political and economic interactions and how they relate to the environment and nature.

Culture is essentially dynamic: in other words, it is both rooted in the people and oriented towards the future. It can aid and also constrain development. Hence, it is important constantly to review the sources of a people's values in order to refine and enrich them with the benefits of knowledge derived from the scientific, technical and social revolutions, and to strengthen practices that will augment sustainable development.

Culture has not been extensively analysed as an important element in sustainable social development. Because it varies from people to people within a region, its role has to be limited to a particular context. No culture is superior to any other as each has a unique role in a development process. Sustainable development should not therefore be practised from a particular cultural perspective or context because funding for sustainable development initiatives that comes with a specific cultural undertone will greatly undermine their essence, which is to promote the totality of human development while maintaining the integrity of the environment.

Culture shapes development and vice versa, and determines how people act in their environment. Indigenous peoples are at the cutting edge of the crisis in sustainable development. Their communities are concrete examples of sustainable societies that have evolved over time in diverse ecosystems. Today, they face the challenge of extinction or survival and renewal in a globalized world. Indigenous peoples comprise 5 per cent of the world's population but embody 80 per cent of the world's cultural diversity. They are estimated to occupy 20 per cent of the world's land surface but nurture 80 per cent of the world's biodiversity on ancestral lands and territories. The Traditional Native American Farmers Association estimates that indigenous peoples cultivate 65 per cent of the crop varieties consumed throughout the world.

4. Sustainable environmental development

(a) Environmental sustainability

The pursuit of environmental sustainability is an essential part of the region's effort to reduce poverty because environmental degradation is inextricably and causally linked to problems of poverty, hunger, gender inequality and health. The livelihood strategies and food security of the poor often depend directly on functioning ecosystems and the diversity of goods and ecological services they provide. The capacity of the poor to protect the environment and improve their livelihoods and well-being is limited by insecure rights of the poor to environmental resources, as well as inadequate access to environmental information, markets, and decision-making (UNECA, 2008).

More than 30 per cent of global dry lands are located in susceptible dry land regions in North Africa, the Sahel and the southern part of Africa. They cover almost two billion hectares in 25 countries, representing 65 per cent of the region's land mass. Over 400 million people live in the dry lands, the majority of them rural poor with an annual population growth rate of three per cent. The dry land is under threat from deforestation, soil erosion, nutrient mining, recurrent drought and climate change, potentially resulting in land degradation and desertification and aggravated poverty. Sustainable agricultural innovations are fundamental to limiting adverse impacts on the environment and the livelihoods of rural populations (UNECA/OECD, 2011). Without complementary societal and government actions, markets can be weak on environmental sustainability, creating the conditions for environmental degradation (UNDP, 2010).

In order to promote environmental sustainability, the Joint Secretariat of AUC, UNECA and AfDB has been instrumental in initiating and launching regional initiatives, including the Land Policy Initiative and the ClimDev-Africa Programme, that play a vital role in advancing Africa's sustainable development agenda. NEPAD has several major frameworks and programmes integrating environmental concerns in sustainable development. Among these are CAADP, the Environmental Action Plan (EAP), PIDA, the Framework for Water and Energy, the Capacity Development Strategic Framework, and Frameworks on Education, Health and Information, Communication and Technology.

(i) Concrete action taken and progress made

The Africa region is making progress in its efforts to address environmental issues in a quest for economic and social development. Countries in the region are signatories to a number of Multilateral Environmental Agreements (MEAs), which provide frameworks for addressing environmental challenges. They are party to at least 30 conventions at the global level dealing with various aspects of environmental management and related areas, including trade, which impacts directly on environmental sustainability. Most countries in the region have signed the three international conventions adopted at UNCED in 1992: the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), and the United Nations Convention to Combat Desertification (UNCCD). Other MEAs to which countries in the region are party include the United Nations Convention on the Law of the Sea (UNCLOS) and those dealing with international trade in endangered species, the management of migratory species, hazardous waste management, cultural heritage, ozone depletion, biosafety, invasive alien species and forest management. In this category are the Cartagena Protocol on Biosafety, the Kyoto Protocol, the Basel Convention, the Rotterdam Convention on Prior Informed Consent, the Vienna Convention on the Protection of the Ozone Layer, the Stockholm Convention on Persistent Organic Pollutants and the African-led Bamako Convention on Transboundary Movements of Hazardous Wastes. Countries in the region have also developed strategies, action plans and programmes to combat desertification, reduce biodiversity loss, implement the Stockholm Convention, and to adapt to and mitigate climate change. They have endorsed the NEPAD EAP, in addition to participating in regional conservation initiatives.

Box 13: Responding to the environmental challenge in North Africa

About 75 per cent of the land area occupied by the seven countries in the North African subregion – Algeria, Egypt, Libya, Morocco, Mauritania, Sudan and Tunisia – is arid or semi-arid. This goes a long way to explaining the limited cultivated area; exodus to coastal areas; low living standards of inland rural populations, urban areas, and localities; and the high concentration of economic activities and the population on the coast. There is thus a regional developmental imbalance between the coastal areas and the hinterland. Growth has therefore had minimal impact on development and poverty.

Desertification, water shortage, biodiversity degradation and the effects of climate change are the major concerns of the seven North African countries. The World Bank has estimated that environmental degradation costs four of the countries (Algeria, Egypt, Morocco and Tunisia) up to US$7.6 billion per year, which, depending on the country, is between 2.1 per cent and 4.8 per cent of gross domestic product (GDP). The African Development Bank (AfDB) has estimated that desertification and the effects of prolonged drought cost the subregion between 0.4 per cent and 1.4 per cent of GDP.

In response to the environmental challenges, the AMU Member States have taken a number of initiatives to strengthen their regional environment and development cooperation policy, including the following:

- Implementation of the Maghreb Environmental Protection Charter, adopted on the proposal of the AMU Secretariat by the Council of the Presidency meeting on 11 November 1992 in Nouakchott. This Charter highlighted the common concerns of AMU countries and made the necessary commitments to strengthen collaboration among countries of the subregion and joint efforts within the Union to attain the environmental objectives set;
- Subregional Action Programme to combat desertification (SRAP) which has just supported and completed the national programmes of action to combat desertification in the countries;
- Regional food security programme prepared in 2006 in collaboration with FAO;
- Project to combat air pollution in the Maghreb (UNDP/FEM/RAB 94/G31), which seeks to reduce emissions in the road transport sector;
- Formation of a Maghreb Ministerial Council in charge of food security with bodies specialized in the fight against desertification (FAD), legumes and research, and agricultural extension;
- Development of a Maghreb agricultural strategy for the year 2030 with a plan of action (2011–2020). This strategy was prepared in synergy with SRAP, MDGs and CAADP;
- Establishment of an information exchange system supported by the Sahara and Sahel Observatory (SSO) of the Arab Maghreb Union (AMU); and
- Adoption of the SRAP/FAD Dialogue 5+5 as a framework for cooperation between the two sides of the Mediterranean by creating synergy between FAD and adaptation to climate change.

The subregion's response includes calls for the following:

- Establishment of a subregional early warning observatory for drought, desertification and climate change reduction and adaptation;
- Development of a legal instrument for sustainable development, which will meet the new needs for regulations in the area of genetic conservation, exchange of native species, the use of GMOs, management of risks and natural disasters, and coastal protection, including risks due to climate change;
- Establishment of new financing mechanisms targeting standardization of environmental undertakings in the subregion and development of cooperation programmes between the private sector to the north and south of the Mediterranean;
- Strengthening international financing tools to combat desertification in order to achieve a better balance between the three conventions and to give priority to major subregional and regional projects and programmes, such as the Green Wall;
- Undertaking studies to better understand the water problem in relation to the impact of climate change and preparing water master plans for the year 2050 in order to shield the subregion from serious water shortage; and
- Development of projected water-management strategies by rationalizing water consumption, developing storage facilities, promoting intraregional solidarity through the transfer of excess basin water to basins experiencing shortages, encouraging the use of non-conventional waters and moving towards the desalinization of brackish or sea water.

Also of vital importance are agreements reached in the area of trade, especially the World Trade Organization (WTO) and related agreements on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and sanitary and phytosanitary provisions. Several agreements on agriculture, such as the International Convention for the Protection of Plants, have important implications for biodiversity and the sharing of benefits arising from its use. Human rights and development agreements adhered to also assist the region to rethink its strategies in response to environmental issues.

At the regional and subregional levels, the region has endorsed a number of agreements and protocols for the protection and management of the environment that promote collaboration and harmonization of national laws, policies, strategies and programmes. Foremost among these is the African Convention on the Conservation of Nature and Natural Resources (ACCNNR), adopted by the AU in 2003. Many subregional organizations have spearheaded the development of environmental management policy and law. There have been important multilateral agreements, which include cooperation in the management of the region's 63 shared river basins, wildlife and forests.

In all subregions, countries have developed environmental action plans and undertaken environmental impact assessments. Natural resource accounting is being planned. Community-based natural resource management programmes are in place in subregions like West Africa to ensure that communities fully participate in the planning and management of the natural resources from which they derive their livelihoods. River basins organizations have been set up to manage transboundary natural resources. For instance, in West Africa, some 12 countries in the Guinea Current Large Marine ecosystem belt are participating in a programme to reduce coastal pollution, restore fisheries and improve coastal biodiversity.

In the area of climate change, climate services centres have been established. Strategies to mitigate and adapt to climate variability have been adopted. In a bid to enhance air quality, for instance, the region formed the Air Pollution Impact Network for Africa (APINA) in 1997 to provide a coordinated framework to address the region's air pollution problems. Many countries across the region have met their commitment under the Dakar Declaration to ban leaded gasoline by the end of 2005. Within the framework of the environmental initiative of NEPAD, programmes focusing on priority environmental issues in the subregions have been prepared to enhance the regional implementation dimension and ensure a coordinated approach to addressing environmental problems.

The State of the Environment Report (SOER) process adopted by many countries in the region with the support of UNEP was an important instrument that kept under review the dynamic relationship between countries' economies and the state of the environment. SOER reports regularly discussed the changing relationship between the economy and the environment, the factors that affected the environment, and the state of natural resources, and presented future scenarios under different development paradigms. The outlook section of the reports enabled policymakers to make informed choices as to which development paths to adopt. Atlases of the changing environment became planning and response tools. They provided compelling impressions, using pictures, maps and other graphics, of the impact of development on the stock and quality of the environment and natural resource base. Countries, especially in the East African subregion, decided to guarantee their citizens a right to a clean and healthy environment through a constitutional provision. This approach makes governments legally bound to manage the environment and pursue sustainable development. Planning reforms in some subregions encouraged sectors to develop sector-wide plans, including the Environment and Natural Resource (ENR) Sector-Wide approach to planning (SWAPs), water and environment sector-wide plans, and land sector strategic plans, which required Sector Working Groups (SWGs) to deliver implementation and monitor progress.

Implementation of commitments has been guided by institutions set up at the regional and subregional levels. Through its NEPAD agenda, AU makes the region's most decisive response to the issues of sustainable environmental management. The African Ministerial Conference on the Environment (AMCEN) is one platform that has been instrumental in determining the region's common position on environmental and climate change issues and providing its negotiators and leaders with negotiation strategies and information. Its activities have contributed immensely to the development of collaborative approaches to environmental management in the region. The Constitutive Act of the AU provided for the establishment of a specialized technical committee on natural resources and the environment. The Pan-African Parliament, established in 2004, has a Standing Committee on Rural Economy, Agriculture, Natural Resources and Environment. In spurring implementation efforts, the region has continued to signal its political commitment to addressing environmental issues, as evidenced by a number of recent endorsements, which include the 13th AMCEN Session of June 2010, the 7th African Development Forum, the AU Summit in January 2011 and the Conference of African Ministers of Economy and Finance (CAMEF) of March 2011.

Efforts to involve other stakeholders, such as civil society, are helping to broaden the consultative base through a number of initiatives. Among these are UNEP's Global Civil Society Forum and the Global Women's Assembly on Environment. These and other initiatives in the region have played key roles in widening the space for giving voice to public concerns, interests and priorities in environmental management and governance issues. As mentioned above, the participation of civil society played a valuable role in the development of AU protocols on critical issues of environment and development concern, including bio-safety, genetic resources and the rights of women.

The region has also made progress in the development of partnerships with governments and the business sector in response to environmental issues. These have led to the establishment of transboundary natural resource management areas, management of protected areas and implementation of environmental impact assessments. Cooperation has also been stepped up in the management of shared water resources, malaria and chemicals; and the pursuit of food and nutrition security.

Implementation of environmental sustainability commitments has seen progress in a number of areas, including growth in the practice of sustainable and organic agriculture, as Malawi and Uganda have shown; impressive growth in the development of renewable energies, in Egypt and Kenya, for example; and massive investment planned in solar energy in South Africa. Significant ecosystem restoration and sustainable tourism development have taken place in Namibia and Rwanda, as well as improved forest management in the Republic of the Congo and Gabon. The Republic of South Africa is at present setting up the South African Renewables Initiative (SARI) to scale up supply of renewable energy in the country. National Cleaner Production Centres (NCPCs) have been set up in countries including Egypt, Ethiopia, Kenya, Morocco, Mozambique, South Africa, The United Republic of Tanzania, Tunisia, Uganda and Zimbabwe. Metrology standards, testing and quality institutions are being strengthened or established to provide complementary support for health and environmental quality programmes.

Box 14: Responding to desertification and drought – some responses by the Central Africa subregion

Central Africa subregion has an abundance of natural resources. It has the world's second largest tropical forest after the Amazon Basin. Its rich ecosystems hold more than 60 per cent of Africa's biodiversity and are ranked first in the region. It also has enormous water resources. As a result of the resource endowment, the subregion also has huge potential for the development of renewable energies. Despite its resource endowment, growth has not been strong. Between 2000 and 2004, economic growth hovered between 4.5 and 6.3 per cent and had no significant impact on the living conditions of the people measured by the level of human development. With the exception of Gabon and Equatorial Guinea, which are middle-income countries, the countries in the subregion are low-income, with per capita GDP below US$ 1000 and 50 per cent of the population living in poverty, on average. The effect of poverty has been felt in the over-exploitation of natural resources. More than 80 per cent of households in the subregion use firewood for cooking.

Thus, the subregion is severely challenged in regard to all pillars of sustainable development. Its response to the development of institutional frameworks for sustainable development is noteworthy, however (see box 5). Nevertheless, at the country level, only a few are implementing sustainable development commitments. Most countries have yet to develop national strategies for sustainable development and therefore do not have an integrated approach. Consequently, there is no effective interaction among the three pillars of sustainable development. Activities are carried out largely at sectoral level. On the whole, the subregion has yet to make significant progress towards implementing the conventions to which countries have acceded. Ecosystems degradation remains a major challenge. Established institutional structures for sustainable development do not function effectively due to financial, human and institutional capacity constraints. This does not mean that nothing is being done. On the contrary, significant efforts are being made to respond to the challenges facing sustainable development.

The countries of the subregion are addressing the causes of desertification and drought and exploring measures to prevent or curb them. National Plans of Action are supplemented by Subregional and Regional Plans of Action, especially where crossborder resources, such as lakes, rivers and crossborder parks are involved.

At the subregional level, efforts to combat desertification have included setting up specialized bodies to co-ordinate action to enhance protection of the environment and upgrade natural resources in a bid to improve living conditions substantially. Confronted by inadequate basic facilities, the Central African countries have devised a common strategy in the areas of transportation, new information and communications technologies, energy and water in order to promote subregional integration. In 2003, the countries in the subregion established a Central African Power Pool (CAPP) under the NEPAD Programme. In 2006, CEMAC prepared a plan of action with a focus on hydroelectric power. Some of these initiatives are still in preparation.

With respect to conservation of biodiversity, countries in the subregion have adopted programmes for rational management of forest products. Some of these measures include reforestation and forest regeneration and rehabilitation programmes. The protection of forests was also intensified at the regional level following the Yaoundé summit on forests (Yaoundé Declaration, March 1999). Cameroon and Chad, for instance, have prepared national environment plans of action for the judicious use of land and harmonized policies on land use and environmental management. In Cameroon, the State conducted a major reforestation campaign to check the advance of the desert.

Many countries in the subregion have prepared national communications plans and climate change mitigation and adaptation strategies. All of them are variously committed to the programme for the reduction of emissions from deforestation and forest degradation in developing countries (REDD+), even though much remains to be done (IUCN, 2010).

More concretely, Central Africa will need to secure a fresh political commitment to sustainable development through:

- Effective application of and compliance with the international conventions and national laws on sustainable development to which the countries have acceded;
- Preparation of national sustainable development strategies and setting up national sustainable development commissions (NSDC), which should help encourage and assess progress on sustainable development. The strategies should include roadmaps for transition to green economies, and the NSDCs should be encouraged to report to elected bodies;
- Judicious use of human resources and development of mechanisms to secure political and financial commitment to sustainable development;
- Appropriate capacity should be developed to support implementation of sustainable development commitments. Universities and research centres should be properly funded and capacitated to undertake research on the pillars of sustainable development in order to support decision-making by policymakers;
- Subregional sustainable development observatories should be set up, which would seek, among other things, to:
- Follow up and review progress made in sustainable development;
- Help countries to establish a reliable and updated information base;
- Watch out for new and emerging challenges;
- Coordinate research activities on synergy between economic growth, social development and environmental protection.

(ii) Constraints and challenges

In spite of the efforts at the policy and institutional levels over the period, biodiversity in the subregions is under threat from natural habitat loss, loss of species or subspecies, invasion by alien species and lack of recognition of indigenous knowledge and property rights. Environmental Assessment Reports showed that there was an increase in environmental degradation arising from erosion, landslides and physical degradation. Forest resources were also rapidly disappearing and with them the biodiversity resources they held. Encroachment, human settlements, over-grazing and recurrent drought all contributed to undermining forest and woodland resources in the subregions.

The main causes of habitat loss in the subregions were human population growth and the resulting demand for space, food and other resources; widespread poverty; rising dependence on natural resources; and economic pressures to increase exports, particularly of agricultural produce, timber and mineral products. Species loss resulted from loss of natural habitats; illegal hunting for food, medicinal, or commercial use; and national and international trade. It also resulted from lack of technical and financial resources for gene banks, lack of effective alignment of programmes and plans of action to combat desertification, soil degradation and the effects of drought, as well as weak collaboration among countries in the implementation of joint programmes, especially to combat desertification. Ecosystem degradation resulted in less water for people, crops and livestock, lower crop, livestock and tree yields, and higher risks of natural disasters.

All countries in the region had greenhouse gas emission levels below the world average, but air pollution arose from unsustainable consumption and production of energy resources by industry, transport and households, especially in urban areas. Transportation was the highest polluter in key cities, largely as a result of the use of imported substandard pre-owned vehicles. Forests were under threat due to unsustainable exploitation. Forest area as a percentage of total forest decreased consistently in most countries, the few exceptions including Cape Verde, the Gambia and Guinea Bissau, where increases were recorded. As an example, Guinea has lost 80 per cent of its forest cover. Water bodies, and coastal and marine environments suffered pollution due to poor waste management, and agricultural and industrial discharges.

There was also the challenge of achieving a balanced integration of the social, economic and environmental pillars of sustainable development in planning, budgeting and implementation of plans and programmes at both regional economic community and country level. This gave rise to the pressing need for national and subregional economic policies adequately to address environmental consequences. Mechanisms and administrative systems dealing with environmental issues are still weak. There is still insufficient public awareness about the real causes and magnitude of environmental problems and the consequences of not dealing with them. Also worthy of mention is inadequate forecasting of emerging environmental problems.

The region has enormous potential to benefit from an environmentally friendly development strategy. In order to make significant progress, however, it will need to undertake the following:

a. Strengthen implementation capacity and reform policies and development programmes that are harmful to the environment, while encouraging others that are beneficial, such as a public procurement policy that favours environmentally friendly behaviour by the private sector:
b. Empower environment ministers to achieve the full potential of their portfolios;
c. Pursue improvements in international environmental governance for an improved response to Africa's sustainable development needs and to this end explore a possible enhanced role for UNEP in the region;
d. Step up financing and other means of implementation of environmental sustainability initiatives;
e. Encourage the development and application of growth performance measures that adjust for sustainable development; and
f. Invest and participate in collaborative research geared towards improving understanding of how ecosystems such as forests and marine ecosystems can generate multiple benefits to support improved livelihoods.

(b) Environmental planning and management

Specific steps need to be taken in the region in the area of environmental regulation and management. These steps straddle sustainable land management; mineral resource development; management of fresh water, coastal and marine resources; sustainable forest management; management of biodiversity, climate change, drought and desertification; and effective planning of natural disaster risk reduction strategies and programmes. Several initiatives are under way and the region has recorded some progress.

(i) Concrete action taken and progress made

The AU/AfDB/ECA Initiative on a Pan-African Framework on Land Policy for Securing Rights, Enhancing Productivity and Improving Livelihoods is an important regional initiative that supports environmental planning and management. Countries are undertaking land reforms to address, among other things, land and natural resource rights and policies, with the active participation of civil society organizations. Institutions and management systems are also being strengthened.

The African Mining Partnership (AMP), a high-level ministerial forum, has been established to implement the mining chapter of NEPAD. The AMP has evolved into a forum for African countries to discuss and take common positions on emerging issues of importance to Africa. Other initiatives include: the establishment of the Communities and Small-Scale Mining Africa chapter; the Africa Mining Network; the Spatial Development Programme championed by the NEPAD Secretariat; and the Southern and Eastern Africa Minerals Centre, which has now opened membership to all African countries and to other stakeholders, including the private sector. At the subregional level, there have been efforts to improve harmonization of mineral policies and standards, as well as regulatory and legislative environments.

The Africa Ministerial Council on Water and the Africa Water Task Force were established to enhance cooperation and coordination and promote the development and implementation of coherent policies and strategies for water resources management. Additionally, the African Water Vision 2025 has been developed and launched and is now being implemented. The implementation of the water resources management component of the NEPAD Infrastructure Short-Term Action Plan (STAP) focuses on seven river basins.

At the subregional level, several river basin organizations and initiatives have been established and are operational. An increasing number of countries are developing new policies, strategies and laws for water resources development and management based on the principles of integrated water resources management. Countries carrying out water sector reforms are also restructuring their institutional and legal frameworks.

Most coastal countries in Africa are signatories to one or more multilateral environmental agreement deals with marine and coastal management issues. These Conventions lay the foundations for coastal states to adopt policies, and develop legislation and management plans on coastal and marine environments. Many countries have put in place policies and legislation on integrated coastal management. The coastal and marine programme of NEPAD aims to support the implementation of regional and global agreements on the coastal and marine environment. Initiatives in the fisheries sector include the adoption of the Abuja Declaration on Sustainable Fisheries and Aquaculture in Africa.

A forest programme was developed as part of the NEPAD EAP. Regional and subregional agreements, partnerships and programmes to promote sustainable forestry have been established. Countries have undertaken a wide range of measures and actions aimed at mitigating and reversing the trend of forest loss. Substantial efforts have been made by North African countries to implement afforestation programmes. Two thirds of African countries have developed and are at different stages of implementing National Forest Programmes. The majority of African countries have adopted new forest policies and forest laws, and efforts are being made in many countries to improve law enforcement. Countries are also making progress in integrating forestry issues into poverty reduction strategies.

The African Convention on the Conservation of Nature and Natural Resources was adopted in 2003. The Convention commits African countries to development that is based on the achievement of ecologically rational, economically sound, and socially acceptable policies and programmes that recognize the human right to a satisfactory environment, as well as the right to development. African countries have ratified the CBD and its Protocol and several other biodiversity-related conventions. Countries are translating provisions of the CBD into action through the development of National Biodiversity Strategies and Action Plans.

A programme on climate change has been developed as part of the EAP. African countries are at different stages of preparing their National Adaptation Programmes of Action (NAPAs). Forty-six countries have ratified or acceded to the Kyoto Protocol and are engaged in its implementation. The World Bank and UNEP are supporting countries in developing projects for funding within the framework of the Clean Development Mechanism. Countries are also developing and deploying new, innovative and other technologies and methods to deal with challenges brought about by climate variability and climate change.

Strategies and programmes to address drought and desertification have been developed at subregional and regional levels and the Green Wall for the Sahara programme has been launched. Centres charged with timely monitoring of drought, and issuing early warnings have been established. As mentioned earlier, countries in the region have signed the United Nations Convention to Combat Desertification and are developing and implementing their National Action Programmes to Combat Desertification (NAPs). NAP implementation has started in some countries and several have integrated them into national development plans, including PRSs.

AUC, together with the NEPAD Secretariat (now NEPAD Agency), developed the African Regional Strategy for Disaster Risk Reduction (DRR), and a Programme of Action was adopted in 2005. In 2006, AMCEN mainstreamed the Africa DRR strategy into its five-year programme. Various RECs have DRR policies and strategies and have established subregional centres for DRR. SSA countries have made significant progress in DRR and a number of policies, institutions, and organizations have been set up to mainstream DRR. There are arrangements in most Middle East and North African countries for emergency management, which are organized and coordinated at national level. However, these arrangements do not deal with DRR holistically.

(ii) Challenges and constraints

Effective environmental planning and management in the region is constrained by a number of factors. These include poverty; weak national institutions with poor technical and financial capacity, and in some cases, fragmented or overlapping functions and actions; low levels of research and scientific capacity; low access to appropriate and efficient technology; inadequate capacity to integrate the principles of environmental economics into development planning processes; poor understanding and appreciation of natural resources issues, especially their links with, and benefits to, poverty reduction; and lack of adequate financial support.

(iii) Lessons learned and way forward

Environmental planning and management experience in the region point to the need for countries to strengthen governance systems at all levels and reinforce human, institutional, technical and financial capacity; adopt and implement effective policies and legislation; and foster stakeholder ownership and local participation in natural resources management and development. Regional and subregional initiatives should be linked and coordinated with national development processes in order to achieve greater impact. Appropriate incentives should also be provided to encourage all stakeholders to become involved in sustainable natural resources management and development. Capacity-building initiatives in the area of environmental economics, including valuation of environmental and natural resources, need to be enhanced.

Countries in the region need to increase political support to natural resources management and development, climate change and disaster risk reduction programmes. They also need to integrate effectively the strategies and action plans of all natural resources sectors into national development plans, including poverty reduction strategies. Climate change should be addressed within the broader framework of sustainable development in order to enhance synergies and promote a holistic and integrated approach to addressing sustainable development challenges in Africa.

It is also desirable for countries to ensure that their different planning frameworks are adequately linked in order to minimize overlaps, potential conflicts and duplication of effort. Identifying and addressing the linkages between the different frameworks enhances complementarities, coherence and convergence and ensures implementation efficiency and effectiveness that yields concrete results.

(c) Adaptation and mitigation of climate change

Climate change is now a major environmental threat to which the region must respond, despite its insignificant contribution to global greenhouse gas emissions and global warming. It must continue to work within the context of regional and global strategies and programmes to adapt to and mitigate its effects. Adaptation to climate change is the adjustment of practices, processes and structures in order to reduce its negative effects, particularly the unavoidable ones, and take advantage of any opportunities associated with climate change, while mitigation involves human intervention in reducing greenhouse gas (GHG) emissions from energy and biological sources or enhancing GHG sinks. It is important to note that regions differ in their vulnerability to the negative effects of climate change because they differ in their livelihood strategies, social and political relations, and the types of stressors to which they are exposed, and they differ in their attempts and capacity to adapt to changing conditions. Nevertheless, climate change is influencing realignment of global and regional policies towards adaptation and mitigation (Prasad et al., 2009).

(i) Major trends and emerging issues

Many countries in the region are putting in place strategies to adapt to and mitigate the effects of climate change now and in the future, although with different levels of commitment and expected outcomes. These have been informed by a series of international initiatives and agreements central to which is the Kyoto Protocol, which seeks to reduce anthropogenic greenhouse gas emissions in advanced economies by at least five per cent below 1990 levels over the period 2008-2012. The Kyoto Protocol was revisited during CoP 17, which was held in Durban, South Africa in December 2011.

(ii) Action taken and progress made

In December 2007, the Parties to the UNFCCC agreed on the Bali Action Plan. Adaptation cost estimates for developing countries vary between the World Bank's US$ 10 - 40 billion in 2020 and the UNDP's 2007 estimate of US$ 86 billion per year by 2015. At present, governments in the region, civil society and development partners are focused on planning for the increasing climate change shocks that may arise and helping vulnerable communities to adapt (EAC, 2009). Recently, countries in the region have been more strategically positioned to face the challenges ahead. Efforts are being strengthened through partnerships at global, regional and national levels.

(iii) Constraints and challenges

According to APF (2009), despite the recent proliferation of international public financing initiatives, the Adaptation Fund for climate change is not yet operational and lacks sufficient funding. Climate change is affecting every aspect of human life in the region. As a result of resource challenges, response capacity remains inadequate to cope with the severity of the impacts. The region is becoming ever more vulnerable, and the effects on agriculture, ecosystems and environmental goods and services ever more devastating. Vulnerabilities are manifest in several areas, including housing, energy, food security, water resources, health, transport infrastructure, environmental services and economic productivity. These have far-reaching implications for livelihoods. Cities are both contributors to and vulnerable to climate change, but the effects are exacerbating the already grim environmental, social and economic challenges, heightening the risk to the urban poor (UN-Habitat and ECA, 2008). Since the region's emissions are relatively low, and African financial markets are less developed than those in some parts of the world, carbon financing schemes have not generated significant amounts of investment capital.

(iv) Lessons learned and way forward

Currently, AU/NEPAD is working in cooperation with a number of specialized continental and regional organizations to promote regional integration in Environment and Climate Change in Africa. There are many issues arising from the negative impacts of climate change, such as reduced marginal GDP from agriculture and changes in geographical distribution of trade regimes. The region needs to play an increasing role in understanding the pattern of climate change and contributing to innovations and new knowledge to respond to the challenges. In addition to a substantial increase in financial resources, the region needs to step up its human, institutional and technological response capacities, which are grossly inadequate at present. It also needs to develop a comprehensive regional strategy.

(d) Sustainable land management

Sustainable land management was examined earlier from the economic perspective. This section examines the environmental dimension. In both cases this report sees land as the region's most valuable economic resource. Unsustainable land-use practices in Africa's floodplains and other areas prone to land degradation, over-exploitation of natural resources, and ongoing climate variability pose severe threats to maintaining the productivity of agricultural lands, as well as ecosystem functions. Deforestation, large-scale land clearance, bush burning, and floodplain encroachment have taken place mainly for agricultural production. Sustainable land management is defined as a knowledge-based procedure that helps integrate land, water, biodiversity and environmental management (including input and output externalities) in order to meet rising food and fibre demands while sustaining ecosystem services and livelihoods (World Bank, 2006).

(i) *Challenges and constraints*

Unsustainable management of natural resources, arising from human activities, results in ecological problems such as land degradation and declining access and availability to water resources. Most people in the region are still engaged in primary agriculture, livestock production, forestry and fishery, and their livelihood and options for economic development are directly linked to the quality of the land and its resources. In contrast to the situation just a few decades ago, there are currently only a few countries that still have spare land resources to meet the need of their expanding populations. In the majority of cases, production must be increased and intensified on land already over cultivated and water resources overexploited.

(ii) *Concrete action taken and progress made*

The region has launched many initiatives at the national, subregional and regional levels, such as adaptation policies and disaster risk reduction strategies. Among the initiatives are the two Bio-Carbon Fund pilot projects in Kenya: the Western Kenya Smallholder Agricultural Carbon Project (implemented by the Swedish Cooperative Centre and Vi Agro-forestry Programme), and the Kenya Smallholder Coffee Carbon Project (implemented by ECOM Agro-industrial Corporation). In order to scale up investments in sustainable land management, the Africa Region of the World Bank developed a Strategic Investment Programme for Sustainable Land Management in sub-Saharan Africa (SIP) that was approved in 2007 with an earmarked GEF grant of US$ 137 million to support a large portfolio that aims to help shift the region's development agenda in favour of more sustainable and climate-resilient land management. There have been several declarations on sustainable development, such as the Brazzaville Declaration on the Environment for Development in May 2006 at the 11th session of the African Ministerial Conference on the Environment; the Bamako Declaration of June 2010 by Ministers of Environment on the theme Environment for Sustainable Development, which requested the Secretariats of the Convention to Combat Desertification and the African Ministerial Conference on the Environment to establish a formal partnership with a clear roadmap, based on relevant objectives and targets to be achieved and activities to be undertaken, to support the mainstreaming of sustainable land management and desertification, land degradation and drought into national development policies, strategies and programmes and to strengthen the African group's position regarding sustainable land management in relevant processes.

(iii) *Lessons learned and way forward*

Land use is not a single problem to be solved by a single decision or a single piece of legislation. It requires a chain of decisions involving the conscious development of the future environment. It requires decisions that cannot be made by any single level of government, but must involve all the stakeholders in the land development process: landowners, developers, consumers, and all levels of government. Therefore, the paramount goal should not be for one level of authority to dominate the other, but for each to have the liberty to bring into proper focus land-use and development interests that have long been neglected.

There is great potential to scale up efforts in sustainable land management by farmers and landowners. Extension workers need to be trained to provide this information in a succinct and easily digestible format, highlighting the benefits to be gained, especially higher yields, less vulnerability, and increased income. Where land and resource management programmes have been successful, the following contributory factors have often been present: (a) local community participation in all aspects of the programme, (b) public support for private investment in soil and water conservation, (c) improvement and maintenance of roads, (d) sound macroeconomic management that does not discriminate against agriculture and natural resources, (e) robust local capacity-building, and (f) consistent efforts over at least a decade by concerned governments to increase not only land productivity, but also awareness of environmental problems and possible solutions at local levels.

Sustainable land management is therefore crucial to minimizing land degradation, rehabilitating degraded areas and ensuring optimal use of land resources for the benefit of present and future generations in the region. Agricultural production in sub-Saharan Africa is falling every year as a result of land degradation. In order to stop, prevent and reverse further degradation there is an urgent need to increase the scale, efficiency and effectiveness of investments towards sustainable land management in the region. The AU-NEPAD programme should explore instruments for addressing bottlenecks, unlocking and increasing the efficiency of financial and non-financial resources, as well as for mechanisms for mainstreaming and supporting the financing of effective nationally-driven sustainable land management strategies.

(e) Sustainable management of water resources

Water is essential for socio-economic development and for maintaining healthy ecosystems. Properly managed water resources are a critical component of growth, poverty reduction and equity. The livelihoods of the poorest are critically associated with access to water services (World Bank, 2011). Africa has more than 60 significant water basins spanning nearly all the countries in the continent. Almost the entire national territory of 14 countries lies within shared river basins. There are also large inland water bodies, such as lakes Victoria, Chad and Kariba. In SSA, subregional river basins constitute the principal source of water resources. About one third of the world's international river basins are found in SSA. Thirty-five countries in the region share the 17 major river basins. Furthermore, regional rivers also include 11 river basins of between 30,000 and 100,000 sq. km. There are a number of important considerations associated with these regional rivers that have implications for long-term management of water resources. About 50 per cent of the total surface water resources of the region are in one single river basin, the Congo Basin, while 75 per cent of total water resources are concentrated in eight major river basins: the Congo, Niger, Ogoague (Gabon), Zambezi, Nile, Sanga, Chari-Logone and Volta.

(i) Challenges and constraints

After Australia, Africa is the world's second-driest continent. With 15 per cent of the global population, it has only nine per cent of global renewable water resources (UNEP, 2008). Water is unevenly distributed, with the Central African subregion holding about 51 per cent of the region's total internal water, and North Africa only three per cent. In addition, the region experiences remarkable variability in rainfall at interannual, decadal and longer time scales. The climate is highly variable over the year, with some subregions experiencing pronounced and often extreme wet and dry seasons, while longer climatic cycles include years of drought. An adequate supply of freshwater is the most important prerequisite for sustaining human life, maintaining the ecosystems that support all lives, and for achieving sustainable development. The inescapable reality is that there are at present inadequate supplies of clean, safe water for the people of the region, so many are dying prematurely, ecosystems are unable adequately to perform their human-sustaining functions, and the potential for social and economic development is being drastically reduced. The region's children lack adequate safe drinking water. Water quantity, quality and sanitation are key factors in determining whether a child survives. Ironically, freshwater is abundant in the region but unevenly distributed. While some countries have high per capita water availability, many others face varying degrees of scarcity.

(ii) Concrete action taken and progress made

The First African Water Week (AWW-1), with the theme Accelerating Water Security for the Socio-economic Development of Africa, took place in March 2008 in Tunis, Tunisia. The meeting's three objectives were to provide a forum for key actors in Africa's water sector to discuss the opportunities and challenges of achieving water security for the region's socioeconomic development; take stock of the status of the achievement of the MDGs and related targets on water in the region; and make recommendations for consideration by the 2008 AU and G8 summits, and the 2009 Fifth World Water Forum (WWF-5).

The AU Heads of State and Government adopted the Sharm el Sheikh Declaration on Water and Sanitation in July 2008, emphasizing the political priority for water and sanitation. The Declaration committed countries to put in place adaptation measures to improve their resilience to the increasing threat to water resources presented by climate change and variability. In response to the climate change commitments in the Declaration, the African Ministers Council on Water (AMCOW), in collaboration with Global Water Partnership (GWP), developed the Water, Climate and Development Programme for Africa. The Second African Water Week took place in November 2009 in Johannesburg, South Africa. Jointly organized by the South African Government, African Ministers' Council on Water, AfDB, UNEP and other partners, the theme of the Water Week was Concretizing Action to Implement African Commitments on Water and Sanitation: "Sprint to the Finish." The aim of the Water Week was to assess the extent of implementation of the actions and commitments outlined in the African Water Vision 2025, the World Summit on Sustainable Development, and the MDGs related to water and sanitation, as well as the AU's *Sharm el Sheikh commitments*. In November 2010, during the 3rd Africa Water Week, the extraordinary session of AMCOW adopted a decision recommending that the GWP and partners put into operation the Water, Climate and Development Programme (WACDEP). The programme supports the implementation of climate change commitments in the Sharm el Sheikh Declaration and contributes to AMCOW's work programme.

(iii) Lessons learned and way forward

In recent years commendable effort has been made towards improving water supply and provision of adequate sanitation, but more effort is required in the region as a whole if the AU's *Sharm el Sheikh commitments* are to be met. In light of the limited water and sanitation infrastructure, and in order to keep up with projected population growth, long-term strategies and plans are needed for investment in and the development of urban and rural water and sanitation infrastructure in many countries. Institutional and legislative reforms are required, while policies and guidelines for improved hygiene and sanitation practices should be improved and sustained. Action should be backed up by financial resource allocations, and increased funding should be made available, particularly to local actors, to scale up well-targeted investments in water supply and sanitation. Climate change is a threat to water supply and sanitation. Climate change adaptation measures should therefore build stakeholder capacity. Capacity for effective water resources management is needed at all levels. Scientific research, data collection and knowledge management capacity on water resources management need to be integrated and expanded to support improved policymaking, public awareness and multi-stakeholder mobilization. There is an urgent need to increase capacity and ensure the full and active participation of the private sector, civil society and NGOs in the management of water programmes and to work in strong partnership with governments and development partners.

Water resources have to be used to increase economic and social welfare but without compromising the sustainability of vital ecosystems. More effort should be directed towards assessing the environmental impacts of water resources management by different countries and, since water resources cut across boundaries, countries should work closely together to maximize the benefits of water resources. In recent years, there have been joint efforts to address several problems in primarily aquatic ecosystems and to develop minimum flow criteria for their protection. Fast decision-making machinery at the political level is required to address trade-offs decisively and take the hard decisions required to balance development and ecosystem functioning within the framework of the AU. The ability to strike trade-offs and define ecological bottom lines for social, ecological and economic uses of water depends on the commitment and flexibility of socio-political organizations and institutions. It also requires a new systemic approach and organizational design towards water management that integrate ecological perspectives.

(f) Disaster risk reduction and management

In 2005 the United Nations convened in Kobe, Japan for the Second World Conference on Disaster Reduction. During this conference the Hyogo Framework for Action (HFA) was adopted as the primary international agreement and instrument for implementing disaster risk reduction. Its overarching goal is to build the resilience of nations and communities to disasters by achieving substantive reduction of disaster losses by 2015: losses in lives, and in the social, economic, and environmental assets of communities and countries. The United Nations General Assembly has called for the implementation of HFA, and reconfirmed the multi-stakeholder UNISDR System and the Global Platform for Disaster Risk Reduction to support and promote it. In the African region, the majority of disasters are hydro-meteorological in nature. Events have shown that, during the period 2007-2010, most countries in the region had limited resources to invest in disaster risk reduction and minimal fiscal space to fund relief and recovery efforts after a major disaster. There is no doubt that the varying disasters that have plagued SSA have caused enormous setbacks to economic growth and development.

(i) Major trends and emerging issues

Hydro-meteorological events have been a major cause of loss of life and economic losses in the region. They include floods, droughts, tropical cyclones and strong winds, storm surges, extreme temperatures, forest fires, sand or dust storms, and landslides. Floods are among the most devastating natural hazards in many countries in the region and flash floods are one of the greatest hazards arising from tropical cyclones, severe storms and uncontrolled human activities. Drought and floods account for 80 per cent of loss of life and 70 per cent of economic losses linked to natural hazards in SSA. North African countries are also subject to a range of natural hazards, but these are not evenly distributed. Algeria is exposed to significant earthquake hazard. The capacities of many national and local Disaster Risk Management (DRM) authorities remain limited. Capacity is required to facilitate disaster risk and vulnerability assessments across sectors, strengthen early warning and monitoring systems, invest in risk mitigation and reduction of underlying risk factors, and support new preparedness, contingency and catastrophic risk financing instruments.

National governments, their national DRM organizations, and national platforms have become key partners in implementing the World Bank Africa Region's DRM activities. In SSA, the region's DRM Team launched risk and vulnerability assessments as its first set of activities. Beyond 2007, a snapshot of the risk and vulnerability assessments in the region by the DRM Team consisted of a pilot study to assess flood, coastal surge and sea level rise hazards in Dakar, Senegal. The study identified high population hotspots in high-risk areas and pinpointed a number of critical institutional aspects related to disaster risk management in a regional context. The World Bank supported the development of a macroeconomic model that assessed the economic impacts of frequent droughts and floods in Malawi. The model assessed average annual losses and impacts on various economic sectors and poverty levels. Following the 2008 cyclone season, the 2009 Malawi earthquake, and floods throughout Namibia and West and Central Africa, the Africa DRM Team conducted Post-Disaster Needs Assessments (PDNAs) on the request of the respective governments.

(ii) Constraints and challenges

Most disaster management institutions face financial problems that limit the extent to which DRR initiatives are implemented. Other constraints are lack of effective institutionalization of disaster risk reduction in the African region; inadequate information management and communication, training and research for disaster risk reduction; inadequate involvement of citizens in DRR; limited risk identification and assessment across the region; and weak integration of disaster risk reduction in national development plans. The major challenges in African countries revolved round problem of the shift from emergency management to DRR; weak governance of DRR mechanisms; and a weak knowledge and information base for DRR decision-making.

(iii) Concrete action taken and progress made

Guided by the 2005 HFA and the Africa Regional Strategy for Disaster Risk Reduction adopted by the AU in 2004, the first four areas of focus of World Bank activities are implemented largely through ex ante activities addressing DRR through technical assistance, sector activities, advisory services, advocacy, and leveraging investments in this field. The Africa DRM Team puts the implementation of this framework into practice by adopting a concerted approach, starting with ex ante activities to facilitate disaster risk and vulnerability assessments. These activities include economic assessments, urban development planning, water resources management, drought and food security, and adaptation to coastal surges and changing marine environments. Ex ante activities to facilitate disaster risk and vulnerability assessments across sectors are an entry point for a broader dialogue with governments on DRR. Building on this in late 2009, the Africa DRM Team initiated a more comprehensive and concerted approach through DRM Country Plans. The plans also include support for educational programmes, reduction of underlying risks, and improved response to disasters. In most focus countries, DRM Country Plans have been initiated successfully and are moving towards implementation. The Africa DRM Team supports countries to initiate investment in reconstruction and risk reduction.

Implementation of the Strategy takes place at the subregional and national levels. In 2006, AMCEN mainstreamed the Africa DRR strategy into its five-year programme. At the subregional level, IGAD has developed a subregional strategy for disaster reduction. In early 2007 ECOWAS approved a subregional Common Policy and mechanisms for DRR. SADC has revised its subregional strategy, factoring in DRR, and ECCAS has established a subregional DRR centre in the Republic of the Congo and is developing a subregional strategy. Several SSA countries have reinvigorated efforts to address growing disaster risks in a proactive way, including the development of strategies and mechanisms to reduce the potential impacts of disasters before the event occurs. PRSPs for countries such as Gabon, Madagascar, Malawi, Mozambique, and Niger have incorporated aspects of natural disaster risk management as part of a national poverty reduction strategy. In support of these efforts to integrate risk reduction strategies into development strategies for good governance, sustainable economic growth, and poverty reduction, ISDR and the World Bank have developed a number of initiatives in the region. Under the new Global Facility for Disaster Reduction and Recovery (GFDRR), regional disaster risk reduction initiatives in partnership with SSA countries are being promoted to develop proactive and strategic approaches to managing hazard risks. A total of 33 countries participated in the survey, providing country reports on the state of disaster risk reduction. National Disaster Management Organizations have been established, legislation is in place, a number of policy statements have been drawn up both in disaster and non-disaster periods, and political commitment to DRR has been gradually increasing. There is also growing recognition of the region's need to improve and enhance the effectiveness and efficiency of disaster management and risk reduction.

(iv) Lessons learned and way forward

Experience over the period 2007-2010 has highlighted a number of lessons in the region, including the need for:

a. *Improved identification, assessment, and awareness of disaster risks:* There is a need to strengthen knowledge on the variety, geographical coverage, type and extent of disaster risks across the region;
b. *Capacity development and coordination:* The lack of technically oriented human resources at national level has hampered the effective implementation of policies and projects. Cross-sectoral training for all professionals involved in disaster management is vital to the success of the regional strategy, as well as for the implementation of national policies. In addition, there is a need for reflection on coordination between DRR institutions in the region;
c. *Enhanced knowledge management for DRR:* The transformation of disaster management practices towards a DRR approach will occur when knowledge of disaster risks and reduction options is disseminated effectively to all partners. It is therefore necessary for the strengthening of national and regional mechanisms and forums for knowledge transfer;
d. *Increased public awareness of DRR:* Increasing public awareness of disaster risks and reduction options is pivotal to the empowerment of people to protect their livelihoods against disaster risks. Risk reduction information needs to be provided regularly through all means of communication and interaction between risk reduction authorities and the public at all levels;
e. *Improved governance of DRR Institutions:* Disaster management institutions need to be strengthened, if DRR is to be integrated into development. This requires the governance of these insti-

tutions to be improved and that they develop the requisite capacity with adequate and secure resources;

f. *Integration of DRR into emergency response management:* DRR needs to be integrated into emergency response and post-disaster rehabilitation and reconstruction activities in the region. A long history of disasters in the region has shown that timely and comprehensive recovery comprising relief, rehabilitation, and reconstruction interventions can reduce vulnerability and promote development if local coping capacities contribute to sustainable recovery;
g. *Increased financial support for DRR initiatives:* Regular development support must factor in disaster reduction to achieve sustainable outcomes in a region that faces current climate shocks, and pervasive social and economic vulnerability; and
h. *Mainstreaming DRR into development planning:* With many development projects under way in the region, there is a need to factor in disaster risk proactively. Increased political support is required to build more holistic assessments of disaster impact into development planning. The recommendations of the MENA Regional Workshop on DRR and Natural Hazard Risk Management, held in Cairo, Egypt from 18 to 21 April 2007, are similar to those outlined above.

For a holistic assessment of the achievements of HFA activities in the follow-up years to 2007, various levels of effort have been put in place by:

a. *Burkina Faso:* The Africa DRM Team completed the hazard, vulnerability, and institutional analysis. Activities, priorities and implementation arrangements were discussed with the respective ministries and stakeholders. It was expected that the DRM country plan would be published in late 2010;
b. *Ethiopia:* The Africa DRM Team consulted with government and stakeholders to draft a DRM country plan. The plan focuses on improving hazard assessment and early warning capacity. It includes a broad range of activities, such as strengthening institutional capacities, including the connectivity of remote DRM woreda offices, vulnerability assessments, implementation of the LEAP software, contingency planning, support for university master's programmes and capacity strengthening in disaster response. The first activities of the country plan are moving swiftly towards implementation;
c. *Ghana:* The DRM country plan was developed and agreed upon with the National Disaster Management Organization (NADMO) in 2009. Activities will be implemented as soon as funds are available and a number of concerns on environmental and social management issues have been addressed;
d. *Madagascar:* Discussion with the government and stakeholders on the DRM country plan will start soon and build on the earlier Mainstreaming Climate and Disaster Risk Management into Economic Development project;
e. *Mali:* The Africa DRM Team consulted and agreed with stakeholders and government on the DRM country plan in late 2009. The main pillars of the country plan include strengthening early warning capacities for droughts and floods, and capacity-building for the national DRM agencies, schools and universities. The plan is closely aligned with ongoing work in sustainable land and water management carried out under the Africa activities foreseen by the Africa Regional Strategy for Disaster Risk Reduction;
f. *Malawi:* The country plan was finalized and agreed upon with the government in 2010. It proposes activities to strengthen institutional arrangements; addresses floods and early warning systems; strengthens hydro-meteorological systems; and pilots flood protection measures throughout the Shire River Basin;
g. *Mozambique:* The National Institute for Disaster Management (INGC) has a long history of support by international development partners. The country plan builds upon these activities and addresses support to institutions and agencies through capacity-building, support for early warning systems, particularly through weather radar system upgrades, and the reduction of underlying risk;
h. *Senegal:* Following the study on vulnerability to disasters in urban and peri-urban areas in Dakar, the country plan was drafted in 2009. The activities focus on institutional arrangements,

capacity-building, early warning systems and contingency planning for flood-affected areas, capacity-building for schools and the general public, and training in disaster recovery activities; and

i. *Togo:* The country plan was drafted in 2009. With a budget of US$ 7.5 million, it is slightly broader in scope than the other country plans. It focuses on community-based activities, improved early warning capacity and hydro-meteorological services. A large part of the work will focus on institutional arrangements and activities.

In spite of ongoing efforts, the number of disasters in the region is on the increase. They remain a major threat to development, putting at risk many recent growth and development gains. Given the region's disaster profile, which is characterized by extreme hydro-meteorological events, disasters are likely to increase in frequency and magnitude due to climate change. Disaster risk reduction will therefore continue to be an important component of all pillars of the region's sustainable development.

(g) Protection of ecosystems and conservation of biodiversity

Biodiversity conservation presents opportunities and challenges in all regions of the world. The humid tropical forests of equatorial Africa are among the most productive ecosystems on the planet, while the arid areas of the region (desert and Sahel regions) provide habitat for many plant and animal species. The influence of biodiversity on the culture and development of the region has been tremendous. Historically, biodiversity was the resource that sustained the livelihood of many people in the region, especially forest dwellers in the Congo Basin, and the nomadic peoples of East and Southern Africa. Overall, the region is home to eight of the 34 internationally recognized biodiversity hotspots in the world. These are the Cape Floristic Region (South Africa); the Coastal Forests of Eastern Africa; the Eastern Afromontane; the Guinean Forests of West Africa; the Horn of Africa; Madagascar and the Indian Ocean Islands; Maputaland-Pondoland-Albany; and the Succulent Karoo (shared between South Africa and Namibia) (CI, 2006a).

Estimates of global species diversity vary between 5 and 30 million species (UNEP, 2007). Biodiversity hotspots are areas with exceptional concentrations of endemic species that face extreme loss of habitat. Agriculture is the largest driver of genetic erosion, species loss and habitat conversion (UNEP, 2007). Habitat change, climate change, invasive alien species, overexploitation and pollution are the most significant direct drivers of biodiversity loss and change in ecosystem services (MEA, 2005). Ecosystem degradation increases vulnerability to invasive species, putting native species at risk (IUCN, 2009). Habitat loss can result in increased greenhouse gas emissions: eight per cent of global emissions derive from tropical deforestation (UNEP, 2008). Ecosystems with healthy, functioning biodiversity provide many services, including: food, water, carbon storage, fibre, fuel, climate and water regulation, spiritual enrichment, recreation, education, and support for primary production (UNEP, 2008; MEA, 2005). Biodiversity disruption has significant implications for the rural poor whose livelihoods depend on local ecosystem services (SCBD, 2006). Loss of biodiversity in ocean habitats greatly reduces ecosystem stability and productivity, which also reduces fishery output (Worm et al., 2006). Loss of biodiversity can result in loss of known and undiscovered chemicals valuable to human health (Chivian, 2001). A considerable overlap exists between historic cultural centres and centres of biodiversity.

(i) Major trend and emerging issues

The current and major trend in the status of biodiversity is continuous decline in all three of its main components: genes, species and ecosystems. Freshwater wetlands, sea ice habitats, salt marshes, coral reefs, seagrass beds and shellfish reefs are all showing serious decline. Extensive fragmentation and degradation of forests, rivers and other ecosystems have also led to loss of biodiversity and ecosystem services. Crop and livestock genetic diversity continues to decline in agricultural systems. The five principal pressures directly driving biodiversity loss (habitat change, overexploitation, pollution, invasive alien species and climate change) are either constant or increasing in intensity. The ecological footprint of humanity exceeds the biological capacity of the Earth by a wider margin than at the time the 2010 target was agreed.

Some 170 countries now have National Biodiversity Strategies and Action Plans. The implementation of many biodiversity conservation action plans since 2002 has had significant and measurable results in particular areas and amongst targeted species and ecosystems. Measures to control alien invasive species have helped a number of species to move to a lower extinction risk category. There has been insufficient integration of biodiversity issues into broader policies, strategies and programmes, and the underlying drivers of biodiversity loss have not been addressed significantly. Moreover, biodiversity considerations are often ignored when such developments are designed. Actions to address in meaningful ways the underlying drivers of biodiversity loss, including demographic, economic, technological, sociopolitical and cultural pressures have also been limited.

(ii) Concrete action taken and progress made

At global level, the following concrete actions have been taken: the 2010 Biodiversity Indicators Partnership, a global initiative to reduce significantly the rate of biodiversity loss by 2010, was established with the aim of contributing to the alleviation of poverty and benefitting all life on Earth (2010 Biodiversity Indicators Partnership, 2009). The World Wildlife Fund's 2050 Biodiversity Goal was initiated to conserve the integrity of the most outstanding natural places. Global Action for Biodiversity, which was established for global conservation of biological resources, has the following seven steps: 1) protect a minimum of ten per cent of each ecosystem type; 2) improve farming practices; 3) harvest fish sustainably; 4) implement environmentally conscious urban and rural development; 5) fight climate change; 6) reduce alien species invasions; and 7) integrate biodiversity into all areas of policymaking (ICUN, 2009).

The World Bank's mission is to alleviate poverty and support sustainable development. The conservation and sustainable use of natural ecosystems and biodiversity are critical to fulfilling this mission. The World Bank Group recognizes the contribution of biodiversity and ecosystem services to environmental sustainability, which is an MDG and a pillar of its assistance. Between July 1988 and June 2008, the Bank, one of the largest international funding sources for biodiversity worldwide, approved 598 projects that wholly or partially supported biodiversity conservation and sustainable use. The Bank's biodiversity portfolio within the 20-year period represented over US$ 6 billion in biodiversity investments, including Bank contributions and leveraged co-financing (IBRD and World Bank, 2008).

In July 2003, the AU adopted the African Convention on the Conservation of Nature and Natural Resources (ACCNNR). The Biodiversity Liaison Group, (BLG) was formed in June 2004 in response to a call from the Conference of the Parties to the Convention on Biodiversity to enhance cooperation among the five biodiversity-related conventions. The five biodiversity-related conventions are: CBD; the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); the Convention on Migratory Species of Wild Animals (CMS); the Ramsar Convention on Wetlands of International Importance, especially as Waterfowl Habitat; and the Convention concerning the Protection of the World Cultural and Natural Heritage (WHC). Multilateral Environmental Agreements (MEAs) exist to promote biodiversity protection. WSSD shared the vision of sustainable development as a way of alleviating poverty, improving human well-being, and simultaneously meeting biodiversity protection objectives while maintaining strong integration between the conservation of natural resources and economic development in the region.

Biodiversity is the variety of life on earth: genes, species and ecosystems. African countries have pledged to contribute to global efforts directed at the conservation of biodiversity, the sustainable use of biological resources and the equitable sharing of the benefits arising out of the utilization of genetic resources by ratifying CBD. By May 2007, 40 African countries had ratified or acceded to the Protocol. UNEP, with funding from GEF, has helped more than 40 countries to develop National Biodiversity Strategic Action Plans.

(iii) Challenges and constraints

Knowledge of biodiversity in the region is hampered by a number of factors: absence of reliable baseline data for most groups of organisms and habitats (Royal Society, 2003); poor knowledge of ecosystem services and the link to biodiversity (Royal Society, 2003); fragmentation of roles and responsibilities among relevant institutions for biodiversity conservation and implementation of sustainable development commitments relating to ecosystem protection and conservation of biodiversity; inadequate financial and technical capacity in the institutional framework for the implementation of commitments; inadequate information (recorded inventory or mapped data) on the location of critical biodiversity areas for emergency action in the implementation of the conservation measures (Olen, 2005: 8); and inadequate institutional capacity in terms of human resources. It is worth noting that a piecemeal approach to the implementation of biodiversity conservation and ecosystem protection does not result in the desired outcome.

(iv) Implementation gaps, lessons learned and way forward

While MEAs exist to promote biodiversity protection, the major problem in the implementation of sustainable development commitments in the protection of ecosystems and conservation of biodiversity is the inadequate implementation of the MEAs and Multilateral Biodiversity Agreements (MBDAs). Biodiversity conservation is governed by a system of Multilateral Biodiversity Agreements designed to stop the ongoing global loss of biodiversity. This implementation issue underpins the reason why the 2010 target for reducing biodiversity loss was not achieved. More holistic solutions involving other sectors in biodiversity conservation are needed. In order to scale up implementation of national and local actions to conserve biodiversity, biodiversity strategies and action plans need to be integrated effectively into national development plans, including poverty reduction strategies, and into sectoral, local and private sector investment plans. Additionally, secure land and resource tenure can stimulate investment in biodiversity conservation.

Countries in the region will need to strengthen governance systems at all levels; reinforce human, institutional, technical and financial capacity; adopt and implement effective policies and legislation; and foster stakeholder ownership and local participation in natural resources management and development. They should enhance political support for natural resources management and development, and effectively integrate strategies and action plans of all natural resources sectors into national development plans, including poverty reduction strategies. While the region has clear biodiversity priorities, it should effectively implement the NEPAD EAP. These priorities consist of the need to:

a. Support and improve implementation of CBD objectives, in particular the sustainable use and fair and equitable sharing of benefits and the development of an ecosystem approach to sustainable management;
b. Prevent and control invasive alien species, through control of entry points, awareness raising, aquatic and terrestrial programmes, and developing a special programme on control of alien species on Africa's Small Island Developing States (SID); and
c. Adopt or strengthen measures in line with the CBD 2010 targets to promote the conservation of ecosystems, as well as species and genetic diversity. Strengthen national conservation programmes through increased financing and introduce innovative means of generating revenues from biodiversity assets. Priority actions by development partners should further support and drive the implementation of initiatives to conserve biodiversity and protect ecosystems (OECD and UNECA, 2011), as well as strengthen the priority given to environmental concerns in development assistance policies and programmes in Africa.

So far, actions have not matched the scale or magnitude of the challenges the region faces in the conservation of biodiversity. Actions must be stepped up considerably to address the underlying causes of biodiversity loss and to ensure that biodiversity continues to provide the ecosystem services essential to the well-being of the region's population.

(h) Management of biotechnology

Following discoveries in such areas as molecular biology, biochemistry and microbiology, biotechnology has burgeoned into a global industry. Research and development in the area of genetic engineering is now a source of new products that are improving agricultural production, food processing, pharmaceuticals, human and animal health, the environment, and industry in general. As has been stressed throughout this report, the most critical challenge facing Africa is sustainable growth and reduction of the number of people in extreme poverty. The continent is still chronically food insecure. Millions of people are suffering from starvation and chronic malnutrition and a high dependency on emergency food aid. In light of the prevailing challenges, the continent cannot afford to be entangled in the political debate over whether or not to harness modern biotechnology for sustainable development. This debate will be more productive if it focuses on strengthening Africa's scientific and technological capacities to harness biotechnology in a safe and responsible manner in the areas of agriculture, human health, environment and industrial applications. To this end, policy decisions and actions at the national and regional levels will need to respond to and address the region's most formidable sustainable development challenge.

(i) Major trends and emerging issues

The state of biotechnology R&D and practice in the region point to progress by three categories of countries:

a. Those that are generating and commercializing biotechnology products and services using third generation genetic engineering techniques;
b. Those that are engaged in third generation biotechnology R&D but have not developed products and/or processes yet;and
c. Those that are engaged in second-generation biotechnology (mainly tissue culture).

In the first category are Egypt, Zimbabwe and South Africa, while Kenya, Uganda and Ghana are examples of the second. The United Republic of Tanzania and Zambia are in the third category. Most biotechnology activities have focused on enhancing agricultural productivity, however. South Africa and Egypt are clearly the biotechnology leaders on the continent. With considerable scientific infrastructure and clear programmes on biotechnology, the two countries have focused on cutting-edge biotechnology areas and have commercialized some of their products. South Africa's biotechnology R&D focus is on genetic engineering of cereals (maize, wheat, barley, sorghum, millet, soybean), lupins, sunflowers, sugar cane, vegetables and ornamentals, as well as on molecular marker applications. These include diagnostics for pathogen detection; cultivar identification for potatoes, sweet potatoes, ornamentals, cereals and cassava; purity testing of cereals seed lots; marker-assisted selection in maize and tomatoes; and markers for disease resistance in wheat. Egypt has invested considerably in genetic engineering of potatoes, maize and tomatoes. Field tests and commercialization of genetically modified potatoes are under way in the country.

Biotechnology R&D in the region is largely undertaken by university departments and national agricultural research bodies. Some universities have established units or programmes that are now dedicated to biotechnology R&D. The University of Cape Town, South Africa, has a number of internationally acclaimed cutting-edge research activities in biotechnology conducted within its Department of Biochemistry, which qualifies as a centre of excellence in biotechnology R&D. Having started biotechnology R&D activities in the early 1980s, the Department has extensive experience in such areas as thermodynamic and spectroscopic investigation of protein folding, and protein Deoxyribonucleic acid (DNA)/(Ribonucleic acid) RNA interactions, regulation of gene expression during the sea urchin embryogenesis, cloning of vertebrate gonadotropin-releasing hormone receptors, and isolation of genes responsible for certain nutritional characteristics of crop plants with a view to producing transgenic plants. Its teaching and training activities are at doctoral and masters levels. By 1995 the Department had generated two specialized doctoral degrees in biotechnology and at least eight master's degrees. The 27-member scientific staff had by 1999 published its biotechnology research in several international and local journals. It has links with private sector (e.g. Monsanto) and other public research bodies in the country and is engaged in several contract research activities for local crop companies.

In collaboration with the Agricultural Research Council (ARC), the University of Cape Town Department of Microbiology in 1997 developed and released for field-testing the first transgenic potato in the country. The potato has been engineered with CP genes that confirm resistance to potato virus Y and leaf roll virus. In addition, the Department's research efforts have generated tobacco that is resistant to cucumber mosaic and tobacco necrosis viruses, via expression of both CP and CP gene antisense Ribonucleic acid (RNA). It also developed maize streak virus (MSV) as a high yield vector for maize cell culture systems and is now engaged in research to develop MSV-resistant maize.

Zimbabwe has made significant efforts to define target areas of biotechnology. The Department of Crop Sciences at the University of Zimbabwe has been applying tissue culture to develop disease-free varieties of coffee, potatoes and tomatoes. Elite coffee bushes have been cloned using the leaf disc technique of Staritsky. The Tobacco Research Institute in Zimbabwe has over the last decade used pollen culture to incorporate resistance to two troublesome diseases in a new variety of tobacco. Research is under way to introduce resistance to other diseases in tobacco using somaclonal variation. It is noteworthy that tobacco has been a model plant for biotechnology research and Zimbabwean scientists have had access to the latest techniques. This is also the most important export crop for the country and has therefore received special research attention.

Also in Zimbabwe, the Biotechnology Research Institute (BRI) of the Scientific and Industrial Research and Development Centre (SIRDC) was established by the Government in 1992 with additional funding from the Government of the Netherlands. Its mandate is to consolidate and coordinate, as well as provide scientific leadership to, Zimbabwe's biotechnology R&D activities. It has built a considerable scientific infrastructure and expertise in tissue culture and genetic engineering.

In Kenya, most of the agricultural biotechnology R&D activities focus on improving the yield potential of cereals and some export crops such as coffee and pyrethrum. Institutions engaged in agricultural biotechnology R&D in Kenya include the Kenya Agricultural Research Institute (KARI), the Department of Biochemistry of the University of Nairobi, the National Potato Research Centre (NPRC), and the Jomo Kenyatta University of Agriculture and Technology (JKUAT). Research at the Biochemistry Department of the University of Nairobi focuses on genetically modified organisms (GMOs) such as capripox virus and rinderpest recombinant vaccine production, and production of transgenic sweet potato, which is currently in field testing. Other institutions actively engaged in biotechnology research include Kenyatta University, where the School of Pure and Applied Sciences conducts research in the development of transgenic maize for drought tolerance and iRNA technology for Striga resistance in sorghum.

The region also hosts several international research bodies active in biotechnology. A good example is ILRI, one of the centres of the Consultative Group for International Agricultural Research (CGIAR). Its remit is to conduct research into tropical livestock diseases and to develop techniques for the management of such diseases. ILRI has exploited biotechnology techniques to obtain antigens that can be used in specific and sensitive diagnostic tests for tick-borne livestock diseases. Compared with conventional techniques, these new generation tests are cheaper, easier to use and better suited to the national programmes of tropical countries. ILRI's Biosciences Research Programme has accumulated a critical mass of scientific expertise in animal genetics, and its activities are at the cutting-edge of science. The Programme's research in quantitative and molecular genetics has focused on the identification of markers to help identify and exploit desirable genetic traits. In 1996 ILRI released a recombinant vaccine (designated p67) against East Coast fever (theileriosis) for field trials. The vaccine is based on a protein found on the surface of the organism that causes East Coast fever (ECF) and stimulates an antibody-based immune response to the parasite as it invades the host. Research is now being conducted to develop the second-generation vaccines that target a later stage of the parasite, once it has invaded the white blood cells of the host and stimulates a response from cytotoxic T cells. In the area of diagnostics, ILRI is applying molecular biology technology to identify unique proteins for four parasites: Babesia bigemina, Theilleria parva, Theileria mutans and Anaplasma marginale. These proteins have been used to develop improved ELISA (enzyme-linked immunosorbent assay) tests specific to each parasite and thus improve the sensitivity and specificity of diagnosis of diseases caused by these parasites.

African countries are thus at different stages in the development of biotechnology. Some have moved up the technology ladder and are applying more sophisticated techniques such as molecular markers, but others are still in the tissue culture level of application. For example, Egypt and South Africa have moved rapidly into such areas as gene sequencing, characterization of pathogens and gene promoters, while The United Republic of Tanzania and others are still at the rudimentary levels of biotechnology development and application.

(ii) Constraints and challenges

Constraints and challenges impeding development and application of biotechnology include: lack of robust policy, legal (legislation), institutional and planning frameworks; ineffective political commitment; lack of clearly articulated national and regional priorities and investment strategies; absence of priority setting; poor funding of biotechnology R&D to bring research findings to commercial applications; poor private sector participation and funding; shortage of human and infrastructural capacity (lack of a critical mass of scientists, as well as inadequate scientific and technological infrastructure) for the conduct of modern biotechnology R&D work; and constraints related to the administration of intellectual property rights, which has significant implications for the diffusion of the technology. It should however be recognized that there has been some significant growth in the level of funding for biotechnology R&D in some countries, but it is heavily donor-dependent. The resources are in any case still too low to put the continent at the cutting edge of the technology.

It is particularly important to note the serious deficit of skilled human resources in biotechnology in the region. Work opportunities are often inadequate. Even specific focal research points created in Africa at donor expense lack the critical mass of skilled personnel. Furthermore, training gained abroad is often not attuned to local needs because of the different research and infrastructural environments in many countries in the region. Unreliable power supply in many African countries is another serious constraint for the efficient application of even basic tissue culture techniques. Lastly, there is a telling lack of basic research. Research and Development programmes currently in place in the region are often isolated, are not needs-driven, and have no definite objectives to develop specific products. Climate and weather characteristics in Africa often pose serious challenges, particularly to tissue culture research.

(iii) Lessons learned and way forward

The region needs to apply biotechnology to address a number of its sustainable development challenges. It can benefit from investment in R&D as well as experiences and results achieved in other developing and developed regions in the applications of biotechnology. This requires proper planning, and interactive cooperation among and between countries and through network of participants. In order to maximize the region's opportunities in the application of biotechnology, the following are needed:

a. Development of appropriate governance (policy, legal, institutional and planning) frameworks for biotechnology research and application;
b. Setting of priorities for agricultural biotechnologies to respond to food security and poverty eradication challenges;
c. Effective integration of biotechnology into CAADP national investment plans and national/regional development strategies;
d. Pursuit of national systems of innovation in agriculture driven by agricultural biotechnology;
e. Support for the establishment of science-based regulatory systems at all levels for effective and functional biosafety systems. Regulations should not undermine the strong need to advance biotechnology R&D;

f. Robust response to funding constraints. Policies and incentive schemes should encourage venture capital, contract research, partnerships with the corporate sector and other forms of financing. There is also a need to explore other innovative financing mechanisms;
g. Sustained political will and commitment from leaders on the continent are critical to stimulate advance in biotechnology;
h. Improvement in communication strategies and programmes to raise public awareness and engagement so as to build public confidence, trust and acceptance of biotechnology;
i. Countries and RECs in the region should strengthen the capacity of the intellectual property systems that reconcile the need to reward inventors with the urgent need to promote freedom to innovate and disseminate innovations for wider application;and
j. Establishment of an African Platform on Biotechnology by NEPAD Agency for dialogue, refinement of biotechnology strategies, and knowledge sharing.

Table 5: Status of agricultural biotechnology research and development activities in Africa

Country		Biotechnology R & D Work	
		Actual contribution	Potential contribution
1	Egypt	Genetic engineering of and commercialization of Bt maize	Transformation and genetic engineering of wheat, barley, tomatoes, sesame, Bt cotton, squash, melon and potatoes
2	Burkina Faso	Commercialization of Bt cotton	
3	Morocco	Micropropagation of forest trees and date palms; development of disease-free and stress-tolerant plants; molecular biology of date palms and cereals	Molecular markers; field-tests for transgenic tomatoes
4	Cameroon	Plant tissue culture of Theobroma cacao (cocoa tree), Hevea brasiliensis (rubber tree), Coffea arabica (coffee tree), Dioscorea spp (yam) and Xanthosoma mafaffa (cocoyam); in vitro culture for propagation of banana, oil palm, pineapple, cotton and tea	
5	Côte d'Ivoire	In vitro production of coconut palm (Cocos nucifera) and yam; Virus-free micropropagation of eggplant (Solanum spp); Production of rhizobial-based biofertilizers.	
6	Ghana	Micropropagation of cassava, banana/plantain, yam, pineapple and cocoa; polymerase chain reaction (PCR) facility for virus diagnostics.	
7	Nigeria	Micropropagation of cassava, yam and banana, ginger; embryo rescue for yam; transformation and regeneration of cowpea, yam, cassava and banana; marker-assisted selection of maize and cassava; DNA fingerprinting of cassava, yam, banana, pests and microbial pathogens; genome linkage maps for cowpea, cassava, yam and banana	Genetic engineering of cowpea for virus and insect resistance
8	Senegal	Well-established MIRCEN programme; production of rhizobial and mycorhizal-based biofertilizers for rural markets; well-established in vitro propagation of tree species in cooperation with several international agencies.	
9	Ethiopia	Tissue culture research applied to teff; micropropagation of forest trees	
10	Kenya	Production of disease-free plants and micropropagation of pyrethrum, bananas, potatoes, strawberries, sweet potato, citrus, sugar cane; micropropagation of ornamentals (carnation, alstromeria, gerbera, anthurium, leopard orchids) and forest trees; in vitro selection for salt tolerance in finger millet; tissue culture regeneration of papaya; in vitro long-term storage of potato and sweet potato; well-established MIRCEN providing microbial biofertilizers in the East African region	Testing of Bt cotton and Bt maize; transformation of tobacco, tomato and beans; transformation of sweet potato with proteinase inhibitor gene; transformation of sweet potato with feathery mottle virus coat protein gene; transformation and marker-assisted selection in maize for drought tolerance and insect resistance
11	Uganda	Micropropagation of banana, coffee, cassava, citrus, granadella, pineapple, sweet potato; in vitro screening for disease resistance in banana; production of disease-free plants of potato, sweet potato and banana	Transformation and genetic engineering in bananas

Country		Biotechnology R & D Work	
		Actual contribution	Potential contribution
12	South Africa	Genetic engineering of cereals: maize, wheat, barley, cotton, sorghum, millet, soybean, lupin, sunflowers, sugar cane; vegetables and ornamentals: potato, tomato, cucurbits, ornamental bulbs, cassava and sweet potato; fruits: apricot, strawberry, peach, apple, table grapes, banana; molecular marker applications of diagnostic for pathogen detection; cultivar identification in potatoes, sweet potato, ornamentals, cereals, cassava; seed-lot purity testing: cereals; marker-assisted selection in maize, tomato; markers for disease resistance in wheat, forestry crops; tissue culture for production of disease-free plants: potato, sweet potato, cassava, dry beans, banana, ornamental bulbs; micropropagation of potato, ornamental bulbs, rose rootstocks, chrysanthemum, strawberry, apple rootstocks, endangered species, coffee, banana, avocado, blueberry, date palm; embryo rescue of table grapes, sunflower and dry beans; in vitro selection for disease-resistant tomato nematodes, guava wilting disease; long-term storage; potato, sweet potato, cassava, ornamental bulbs; in vitro gene bank collections potato, sweet potato, cassava, ornamentals, forest trees, medicinal plants, indigenous ornamental plants.	
13	Zimbabwe	Micropropagation of potato, cassava, tobacco, sweet potato, ornamental plants, coffee; marker-assisted selection	Genetic engineering of maize, sorghum and tobacco
14	Zambia	Micropropagation of cassava, potato, trees (Uapaca), banana and hosts; SADC Nordic-funded gene bank of plant genetic resources	

Reference: UNECA, Biotechnology for Sustainable Development, October 2011 (Commissioned report)

i. Management of chemicals and wastes

Chemicals are a vital input in development and are required in virtually all aspects of the sustainable development process. They bring numerous benefits to economies and societies and represent a vital element of human development. However, without good management and disposal practices, chemical substances, as well as wastes, have the potential to turn into significant risks to human health and the environment, with negative and life-threatening effects. For this reason, a sustainable development process must integrate sound chemical and waste management as priorities in national development strategies. It must also strengthen national capacities for their management towards the emergence of green economies. Poor chemical and waste management practices, in particular the widespread dumping of chemicals and industrial wastes in water bodies and uncontrolled dump sites, aggravates the problems of pollution and generally low sanitation levels across the African region.

(i) Major trend and emerging issue

Urbanization is on the rise in Africa and this trend is expected to continue. It is of concern that the infrastructure and land use planning, including waste management, are not coping with the growth of urban areas (around 3.5 per cent annually). This is particularly urgent in slum areas, which constitute a large part of many of the cities and towns in the region. Waste management infrastructure is largely absent in rural areas of Africa. Improvements in infrastructure are urgently needed to combat the high costs of health services, and hence alleviate poverty and reduce rural-urban migration. The gap between waste management policy and legislation and actual waste management practices is widening due to ongoing capacity constraints or absence of waste management facilities for the different waste streams. Resolving this capacity constraint will require major investment and access to technical know-how. Waste generation is expected to increase significantly as a result of industrialization, urbanization and modernization of agriculture in Africa. This will further aggravate the current capacity constraints in waste management. The fast-growing use of ICT and rapid turnover in technology (particularly computers, mobile phones, etc.) create a growing E-waste stream for which there is as yet no waste management capacity, so E-waste is disposed of with municipal waste in dump sites. The changing lifestyles and consumption patterns of the growing urban middle class are increasing the complexity and composition of waste streams in the region.

(ii) Constraints and challenges

Waste management efforts in the region seem to have placed emphasis on technology at the expense of management support systems. This is the result of inadequate understanding of the policy issues related to effective waste management strategies and weak experience in implementing programmes. An acceptable level of service for waste management depends critically on well-planned management operating within an adequate institutional arrangement and capable of generating the financial resources required to meet operations maintenance and investment costs. Among the common weaknesses in existing institutional systems are unskilled staff, low pay, lack of incentives to do a good job, and mismanagement of financial resources. Related to these are two key problem areas: inadequate supervision of workers, and inadequate maintenance of facilities. The inability to provide adequate funding for solid waste management on an ongoing basis is a major problem in many African cities. Direct user charges for refuse services are relatively uncommon and, where they do exist, collection rates are often very low. The single largest implementation challenge remains the creation of sufficient capacity for environmentally sound management, including, where appropriate, recovery and recycling, of various waste streams across the region. Current by-laws in most places in African countries place responsibility for waste management on municipalities, which are insufficiently equipped to deal with collection and disposal, and such by-laws are now an impediment to investment in waste management by the private sector.

(iii) Concrete action taken and progress made

Progress has been made in waste management policies and strategies. Resource Efficient and Cleaner Production has proven to be a feasible best practice for reducing waste from businesses and other organizations in different parts of Africa and is now being promoted, including through the network of UNIDO-UNEP affiliated NCPCs. Encouraging industrial development in Tunisia caused a predictable hazardous waste generation problem. Far ahead of other countries in the region, Tunisia established the first hazardous waste treatment centre in the Arab world in 2008.

(iv) Lessons learned and way forward

Solid waste management activities have been serving as means of income generation for people taking part in these activities. Income generated is not only from wages but also from the sale of items recovered from solid waste. Waste products such as plastic bags, plastic containers, knives, spoons, frying pans, gutters, etc. can be recycled. In some cities a sound refuse collection system is in place and forms a good source of income for city and municipal councils. The way in which solid waste is managed has changed. Sorting is now done at communal waste collection points with noticeably organized groups of people. Attitudes to solid waste are gradually changing so that it is no longer seen as a menace but rather as a commercial good that can be used to generate income and alleviate poverty. Support from the International Atomic Energy Agency (IAEA) has had a tremendous impact on the capacities of some African countries to manage radioactive waste in safe and environmentally sound ways.

The scale of investment necessary for proper sanitation and environmentally sound management of waste is beyond the capacity of many countries in the region. The international community should implement the relevant international agreements/conventions on waste management (particularly the Bamako, Basel and Cotonou Conventions) and provide assistance to African countries to strengthen their national human and institutional capacities for implementation and enforcement (especially for control of import and export of waste and products that may generate harmful waste into and within the region). Assistance is also required for awareness and cultural change programmes for integrated waste management.

(j) Management of mountain areas

Mountains are differentiated from hills by their higher elevations, steeper slopes and cooler temperatures. However, mountain areas, as defined by UNEP-WCMC in 2000, include both mountains and hills. Above 2,500 m, high altitude land masses are always classified as mountain areas, irrespective of slope; below 2,500 m and above 300 m, lands variously referred to as uplands, highlands, or hills are considered to be mountain areas if they exhibit a certain degree of slope and a variable local morphology (FAO, 2003). It is noteworthy that there is no standard definition that distinguishes mountains from non-mountain environments. Nearly half of the world's mountain population, or around 330 million people, live in the Asia and Pacific region, two-thirds of them in China alone. The mountain population is quite evenly distributed among the other regions, with around 100 million people each in Latin America and the Caribbean, the Near East and North Africa and sub-Saharan Africa (FAO, 2003). Consequently, sustainable mountain development was one of the issues addressed during the 1992 UNCED. Chapter 13 of Agenda 21 (Managing Fragile Ecosystems: Sustainable Mountain Development) specifically focussed on this issue.

(i) Major trend and emerging issues

Of the total 245 million vulnerable rural mountain people, 87 per cent live below 2,500 m above sea level, where they represent less than half of the mountain population. In high mountain areas, the number of vulnerable rural people is small, but they represent almost 70 per cent of the population living above 2,500 m. The higher prevalence of vulnerability at higher elevations helps attract attention to these areas. For instance, mountainous forests have become increasingly important as these areas, like lowland forest, have been brought into serious exploitation and constant threat of disintegration following the depletion of most of the lowland forests. Rural development, food security, fresh water, biological diversity, forests, climate change, culture, traditional knowledge and tourism, among others, are the main mountain issues. Sustainable mountain development can be achieved notably through: (i) raising the awareness and supporting the efforts of mountain peoples to reverse the trend of degradation; and (ii) creating effective mountain constituencies and building networks of national, regional and global mountain institutions.

(ii) Lessons learned and way forward

In terms of economic activity, mountains support forestry and tourism, as they support bird watching, hiking and climbing, among other recreational activities. Mountain water generates hydroelectricity, facilitates industrial processes, and is critical in irrigated agriculture. Mountains in the African region have been described as "islands of high productivity in a continent where dryness and aridity are increasing at an alarming rate" (Njiro, 1998). People also settle in mountain areas as the lowlands are difficult to manage due to poor soils and erratic rainfall patterns, and are usually home to pests such as mosquitoes and tsetse flies. The region's mountain ranges are the headwaters of most of the large African rivers, such as the Nile and Tana Rivers. According to FAO, one out of every two people worldwide drinks water that originates in mountains (FAO, 2002).

Mountains are also important biodiversity areas. Stretching across The United Republic of Tanzania into Kenya, the Eastern Arc Mountains and coastal forests are recognized as one of 34 globally important "hotspots" for biodiversity. The Uluguru Mountains, for example, are renowned for biodiversity conservation and supply water to the capital, Dar es Salaam, which has a population of between 3-4 million people (ACF, 2004). In many African countries, forested highlands are stripped of their natural vegetation without proper environmental impact assessment studies. Some Afromontane forests, such as the Manengouba forest in Cameroon, have shown indicators of undesirable encroachment due to cultivation and firewood collection, which have endangered several endemic birds, amphibians and rodents. The greatest environmental abuse factors in the region's mountain areas can be summarized as human activities resulting in drought and desertification, winds, forest fires, erosion and harsh climatic conditions.

Various assessments of progress made in implementing Chapter 13 since Rio 1992, have shown that the level of economic development in most mountain regions of the world, including those in Africa, "remains unacceptably low".

C. Interlinkages

Section II of this report highlighted the nature of the interlinkages among the three pillars of sustainable development and the need to ensure effective integration if the multifaceted development challenges facing the region, like all other regions, are to be addressed. Progress so far reported in the implementation of sustainable development commitments has shown a glaring weakness in fostering this integration. The mutually interdependent and reinforcing potentials of the interlinkages among the three major pillars of sustainable development – economic, social and environmental – and their significance for progress reinforce NEPAD's call for an interlinkages approach to sustainable development in the region. In order to be effective, this requires appropriate institutional and strategic frameworks and supporting systems that promote a holistic and integrated approach to the response to development challenges, underscored by a good and inclusive governance and institutional framework. Global, regional and national level strategic responses to the MDGs also provide invaluable opportunities to harness for development the synergies integral to this interconnectedness. Not being mindful of this may lead to costly deficits in development arising from lack of sustainability. In the pursuit of human development, the emphasis on multidimensionality complements conventional approaches to sustainability, which reminds us that the debate about what should be sustained is as important as how to sustain it (UNDP, 2010).

UNEP (2006) defines interlinkages in the environmental sector as the processes and workings of environmental management which reflect the systemic characteristics of ecosystems and environmental problems and the interconnection of human processes and environmental processes at all levels of human and natural ecosystem interaction. Natural resources, which consist of land, atmosphere, water, biodiversity and human activities, function as a system and are all linked in a complex web of interactions and feedbacks. Equally, sustainable development challenges are interlinked across spatial, thematic and institutional processes. Changes in the natural resource base and the challenges of sustainable development are caused by the same sets of drivers, which include demographic change; economic processes; scientific and technological innovation; distribution patterns; cultural, social, political and institutional processes; consumption and production patterns; and globalization that has brought about increased flow of goods, services, capital, technologies, knowledge, information, ideas and labour at global level. Drivers are the pressures imposed on natural resources by human activities, including land use/cover change (e.g. agricultural expansion or reduction, urban expansion, land and soil degradation, deforestation, habitat fragmentation); harvests and resource consumption, including overexploitation (e.g. wood extraction, mining, fishing and harvesting of species); species introduction/removal (e.g. invasives, genetically modified organisms, removal of fish); climate variability and change (e.g. temperature, precipitation, sea level, extremes, forest fires); air pollution (e.g. greenhouse gases, acidification, CO_2 enrichment); external inputs (e.g. irrigation, fertilizers, pest control chemicals); natural, physical, biological processes (e.g. volcanoes, evolution); and disasters such as war and climate extremes. There is an intricate relationship among these drivers which in turn has effects on the natural resource base. Understanding these interlinkages helps in the design of policies and programmes to address sustainable development challenges.

The region's development challenges call for an interlinkages approach to sustainable development to facilitate effective response to complex human-ecological systems. In order to facilitate more effective compliance with international conventions, treaties, protocols and agreed development goals, the interlinkages approach highlights areas for cooperation and joint programming among actors, countries, subregions and regions. Adopting an interlinkages approach in the formulation of policy and the development of programmes can therefore help to ensure that interventions are more relevant, robust and effective, and that policies are based on principles that are cross-sectoral (UNEP, 2006). Thus, an interlinkages approach offers an opportunity for better coordination and harmonization of policies to eliminate any contradictions, avoid overlaps, and boost capacity to implement sustainable development.[16] If fully implemented, sustainable development through the interlinkages approach results in fewer conflicts, less duplication of work, strengthened complementarities and synergies, and makes it possible to take advantage of development opportunities.

1. Sustainable development drivers and interlinkages

Demographic changes are imposing great pressure on natural resources through, among other things, population increase and movement of human beings between urban and rural areas, as well as across territorial boundaries. Changing fertility rates and other demographic patterns cause these changes, leading to a shrinking natural resource base in the region. Per capita land size has declined steadily since 1990 due to population increase. The region's population is expected to pass the 1.5 billion mark by 2050 (UNFPA, 2010). This growth will increase the pressure on the region's natural resource base and therefore calls for programmes to be institutionalized in order to address population issues. Demographic changes also have implications for consumption patterns, waste generation and management capacity.

Economic growth plays a role in the development of communities. Growth draws on ecosystem services for improvement of the quality of life. How ecosystems services, economic growth processes and population growth interact has implications for sustainable development. The changing trends of country, subregional, regional and global economies play a part in directing the future path of sustainable development. Regional economic activity increased significantly between 1990 and 2010. Despite population growth, per capita incomes almost doubled during this period, changing the pattern of social development and putting pressure on environmental resources. Changes in per capita incomes lead to affluence, which in turn affects the structure of consumption, causing an increasing shift towards consumption of industrial goods and services. Increased consumption of raw materials and the related production of waste place tremendous pressure on natural resources.

Technological innovations and scientific advances have been critical drivers of the trends in sustainable development, which are linked to socioeconomic and ecological processes (Juma and Serageldin, 2007). Technological changes, particularly the increasing role of Information and communications technologies, have had far-reaching implications for the emergence of knowledge economies and natural resource management in general. The region has witnessed an explosive growth of mobile phone use, internet connectivity and other forms of ICT. Other technological changes that occurred over the period of this report, which have been important drivers of sustainable development and have intelinkages with all three pillars of sustainable development, were the adoption of biotechnology and progress in science and technology innovations (Juma and Serageldin, 2007).

Climate change is a significant driver with interlinkages with all pillars of sustainable development. Its impact is projected to continue in the region in ways that have extensive implications for sustainable development. The region's share of greenhouse gas emissions was 7.8 per cent (IPCC, 2007). The driving forces for emissions are linked to the region's growth pattern, changing production and consumption patterns, agricultural practices, and patterns of human settlement.

16 IISD interlinkages portal: http://www.iisd.ca/sd/interlinkages/interlink2/

Box 15: Aspects of global and African biodiversity and interlinkages

- Globally, between 20 and 50 per cent of the turnover of the pharmaceutical sector (which amounts to US$ 650 billion annually) is derived from genetic resources;
- One billion people worldwide depend on drugs derived from forest plants for their medicinal needs;
- Nearly a sixth of the world's population depends on protected areas for a significant proportion of their livelihood;
- Around eight per cent of the 52,000 medicinal plants used today are threatened with extinction;
- Namibia's protected areas contribute six per cent of GDP from tourism alone and have significant growth potential. Income from Namibia's conservancies (and conservancy-related activities) is about US$ 4.1 million. Foreign tourist spending accounts for an estimated 24 per cent of total exports;
- The wetlands of the Okavango Delta generate US$ 32 million per year to households in Botswana, mainly through tourism. Total economic output amounts to US$ 145 million, which is about 2.6 per cent of Botswana's gross national product;
- WHO estimates that 80 per cent of Africans rely on traditional medicines (plants and animals) as the main source of their health care needs.

2. Economic-social-environmental nexus

The emphasis on economic growth through market-oriented economic reforms that formed the basis of economic policies in Africa in the 1980s and 1990s did not pay adequate attention to the social dimension. This neglect had consequences not only for economic recovery, but also for environmental sustainability. The lack of a solid economic base in much of Africa to sustain a private sector orientation negatively affected privatization of public enterprises; loss of jobs through retrenchment and employment embargo, particularly in the public sector, led to high levels of unemployment, low institutional capacity and the inability of governments to sustain the reforms. The high inflation rates arising from devaluation of local currencies and uncritical withdrawal of subsidies to the social sector, including education and health, resulted in low real wages, low disposable incomes and lowering of competencies in the public services. The consequences for the real sector, particularly the import substitution industries, were equally not encouraging: de-industrialization and poor real GDP for several African countries. For many poor people in Africa the solution to the withdrawal of oil subsidies is the use of wood as an alternative fuel, which is associated with environmental degradation and deforestation.

It has been realised over time that markets may be necessary for sustained economic dynamism, but they do not automatically bring advancement in other dimensions of human development. Development that overly favours rapid economic growth to the detriment of the social dimension is rarely sustainable. In other words, a market economy is a necessary but insufficient condition, and the same is true of economic growth. This underscores the need to recognize the individuality of countries and communities alongside the basic principles that can inform development strategies and policies in different settings, and the need for a holistic approach to development. Trends conducive to empowerment include the vast increases in literacy and educational attainment in many parts of the world that have strengthened people's ability to make informed choices and hold governments accountable without which corruption and good governance in general will be elusive (UNDP, 2010).

3. Economic–social linkages

(a) Sustainable growth, human development and poverty eradication linkage

Economic growth is a prerequisite for reducing poverty and improving the lives of individuals and groups. The reduction of income poverty in particular and poverty eradication in general is primarily dependent on a sustainable growth rate. Rapid and sustained growth increases incomes and generates the resources necessary to deliver social services for the attainment of the MDGs.

Long-term poverty reduction symbolized by the MDGs requires sustained and equitable economic growth, which in turn depends on technological advancement, appropriate institutions and capital accumulation. The MDGs, as the most widely accepted, comprehensive and focused framework for development, play dual roles in the process. First, they are functional prerequisites – essential organizing principles for society, the level of development notwithstanding. Second, the goals are crucial to the work of the entire international system in the area of development, focusing on precise targets and serving as "capital inputs" – stimuli to socio-economic growth and overall development (UNECA, 2008). The interlinkages are noteworthy: hunger, disease, gender inequality, lack of education and access to basic infrastructure, and environmental degradation are all traceable to extreme poverty. The acquisition of education can enhance human capital, which can eliminate the undesirables, providing the sort of transformation that can make the individual more productive for society.

The resilience of the region's economy following the 2008 and 2009 economic and financial crisis was underpinned by the rebound of export demand and commodity prices; increased inflows of FDI in extractive industries and of aid; a return of tourists; increased activity in the service sector, particularly telecommunications; higher consumer demand; and good harvests in some subregions. All these demonstrate the benefits of interlinkages.

Human development has not been commensurate with growth due to the lack of inclusiveness in governance and weak regulatory institutions. African countries are at the bottom of the 2010 HDI rankings of 169 countries. The prevalence of jobless growth is indicative of substantial inequalities in production and consumption. Income poverty and multidimensional poverty draw attention to political power as a driver of poverty trends and the need for more inclusive democratic governance as a policy priority (UNDP, 2010). Weaknesses in regulatory frameworks for effective public–private partnerships for social and infrastructure service delivery inhibit progress in many African countries. A larger state role appears necessary for social conditions in Africa to improve substantially (UNECA/OECD, 2011).

Lack of access to modern energy results in air pollution, acute health problems, and environmental challenges linked to overconsumption or inadequate management of wood resources. In many countries, electricity demand continues to grow, fuelled in particular by growth in incomes and rural-urban migration (UNECA/OECD, 2011).

(b) Education and health linkage

Access to basic education, in addition to being recognized as a human right, and a vital part of individuals' capacity to lead lives they value, is an important instrument with which people can improve their lives in several other ways. For instance, education enhances the capacity of poor people to participate in the political process and thus to organize for other social and political rights and to demand governments that are more inclusive, representative and accountable, thereby enhancing good governance. Better educated people earn more, not only or primarily because they are better qualified, but also because they are more productive (UNECA, 2008).

Educated women show lower maternal and child mortality because they make more informed choices that result in better health conditions.

Despite often severe adversity, many African countries have made noteworthy progress in human development in recent decades. Ethiopia, Botswana Benin and Burkina Faso are among the 25 "top performers" identified in the HDR ranking of 135 countries since 1970, largely due to gains in education and public health. The Democratic Republic of the Congo, Zambia and Zimbabwe, on the other hand, currently have lower HDI values than in 1970, due to a combination of conflict and AIDS driving down life expectancy (UNDP, 2010). Many African countries also face the challenge of improving the quality of education (UNESCO, 2010), pointing to institutional weakness.

(c) Gender, education and political participation linkages

Gender inequities have negative effects on higher enrolment and completion rates. Gender-based income distinctions remain serious impediments. Girls in the poorest 20 per cent of households are 3.5 times more likely to be out of school than girls in the highest income groups, and four times more than boys in the higher income groups. Gender gaps are accentuated by the rural-urban divide, with girls in urban areas faring better. Adult illiteracy remains high, though female literacy rates are on average lower than those of men. However, 15 countries had literacy rates above 90 per cent for both men and women. Across countries as well as over time, male literacy rates tend to increase first, female literacy catching up at a later stage. According to international statistics, Lesotho and Botswana are exceptions to this rule, with higher literacy rates for females than for males. Zambia, Swaziland, South Africa and Namibia all have both high literacy rates and very similar literacy rates for men and women. Improvements in the education of women tend to enhance their representation in national parliaments. From the baseline year of 1990 to 2009, 31 of the 37 African countries for which data was available increased the proportion of seats held by women. In 2011, 7 of the 25 countries worldwide that had reached 30 per cent female participation (in single or lower houses of national parliaments) were African; in one country the figure is over 50 per cent (UNECA/OECD, 2011). A cross-cutting impact of gender on other MDGs is that four of the leading African countries in terms of increased women's representation in parliament have emerged from civil conflict. This is a pointer to the significance of gender mainstreaming for the peace-building process (United Nations, 2010c).

Gender also has important correlations with governance institutions and the attainment of the MDGs. Countries where social institutions are highly discriminatory towards women tend to score poorly against the human development targets used to track progress towards achieving the MDGs. Despite overall progress on many of the targets, in 21 countries where social institutions discriminate against women the most (those ranked in the top SIGI quintile), primary school completion is on average more than 15 per cent lower; nearly twice as many children suffer from malnutrition; and maternal mortality rates are twice as high when compared with other developing countries. Where women lack any access to credit the number of malnourished children is 85 per cent above average. Control over resources is therefore directly relevant to MDG 1, since in countries where obstacles to women's ownership rights are widespread, the levels of hunger and malnutrition are also high (UNECA/OECD, 2011). This gives credence to the assertion that countries with unequal distribution of human development experience high inequality between women and men, and countries with high gender inequality also experience unequal distribution of human development (HDR, 2010).

(d) Health and poverty linkage

Infection by malaria is a persistent cause of poverty as poverty itself doubles as a cause, because weakness caused by the disease in adults can severely impair their ability to work, limiting the means of livelihood for families and communities. Successfully fighting malaria presupposes a holistic approach, which includes: vector control (by environmental management and use of bio- and other pesticides); prevention, of which a successful example is investment in insecticide-treated bednets; use of affordable anti-malarial treatments; community involvement; and better data on prevalence and transmission of the disease (UNECA/OECD, 2011), all of which require good governance and institutional capacity.

Between 2001 and 2009, the HIV/AIDS incidence rate declined steadily, by nearly 25 per cent worldwide. However, this global progress masks substantial regional differences. While the incidence rate fell significantly in sub-Saharan Africa and Southern Asia, it remained unchanged in Eastern Asia, Western Europe, Central Europe and North America. Recent data from population-based surveys in selected sub-

Saharan African countries show that the proportion of young people who know that using condoms can reduce the chances of HIV infection ranges from about 50 per cent to almost 90 per cent in some countries. However, in almost all countries surveyed, young women are less likely to have such knowledge. Youth in rural areas are also less likely to know about prevention methods than their urban counterparts.

The issue of sustainability is clearly demonstrated in the area of health. Although globally deaths from malaria fell by an estimated 20 per cent in the period 2000 to 2009, the trend showed that the number of malaria cases rose from about 233 million in 2000 to 244 million in 2005 but decreased to 225 million in 2009. The resurgences highlight the fragility of progress in malaria control and the need to maintain control programmes rigorously via relevant institutions and strategies even when cases have been reduced substantially. An analysis of survey data from sub-Saharan African countries shows that the poorest 20 per cent of the population in urban areas are almost six times more likely to rely on an unimproved drinking water source than the richest 20 per cent. In urban areas, the poorest households are 12 times less likely than the richest households to enjoy the convenience and associated health benefits of having a piped drinking water supply in the home.

(e) Unemployment, peace and security linkages

In the absence of peace and political stability, investment risks increase and this has adverse effect on business enterprise. The combination of steep unemployment partly arising from jobless growth exacerbated political and social tensions in some African countries such as Algeria, Egypt, Libya and Tunisia, leading to insecurity, internal displacement and a refugee situation. All this is largely the result of poor economic diversification, continued heavy dependence on commodity production and exports, and lack of responsive and inclusive governance. African unemployment remains high, however, and its economic rebound is yet to translate into meaningful reductions in unemployment, especially among youth and vulnerable groups. Hunger was on the rise in 2010 owing mainly to increases in food prices and declines in subsidies (UNECA, 2011). Youth unemployment in particular, which has remained at around a high of 18 per cent for the last decade, is of major concern given the tendency for mobilization for violent conflict and crime associated with this category of unemployed persons.

In some countries in the region, environmental resources such as minerals and crude oil serve as the major revenue earner with their by-products providing support to other sectors of the economy. However, most communities experience this environmental item more as a curse than a blessing due to the lack of inclusive governance. Such communities experience environmental degradation and the attendant disempowerment as a result of oil spills that eliminate subsistence farming, fishing and other associated marine businesses in local communities; and resource-based conflicts that result in a refugee situation and/or internal displacements. Sustainable use of resources, on the other hand, will reduce violence and youth restiveness arising from poor political and economic governance, create jobs and raise the standard of living of people in communities as sustainable agriculture is enhanced. The socially responsible policies associated with this can make available the financial and infrastructural resources to enhance social services such as free, high quality formal education, entrepreneurial skills and SMEs for youth and needy adults. Good governance and effective institutions are required to promote environmental goods and services such as biogeochemical processes and attributes or the related products necessary for the self-maintenance of an ecosystem.

High fertility rates will translate into rapid population growth well into the century. The consequent young population structure represents a particular challenge for African countries in terms of education, employment and security. Although internal conflicts such as civil wars are decreasing in the region, natural and man-made disasters, including floods, have added to internal displacements. The low institutional capacity to deal with the situation has left many poor people poorer while terrorism has led to new forms of insecurity.

4. Economic-environmental linkages

The pursuit of environmental sustainability is an essential part of the global effort to reduce poverty, because environmental degradation is inextricably and causally linked to problems of poverty, hunger, gender inequality, and health. Livelihood strategies and food security of the poor often depend directly on functioning ecosystems and the diversity of goods and ecological services they provide. Insecure rights of the poor to environmental resources, as well as inadequate access to environmental information, markets, and decision-making, limit their capacity to protect the environment and improve their livelihoods and well-being (UNECA, 2008).

Drylands are under threat from deforestation, soil erosion, nutrient mining, recurrent drought and climate change, potentially resulting in land degradation and desertification, and aggravated poverty, and these pose a threat to sustainable development in the regions. Sustainable agricultural innovations are vital for limiting adverse impacts on the environment and on the livelihoods of rural populations. Access to electricity tends to be higher in urban areas and to increase with income. The cost of lighting with alternative energy sources represents a substantial proportion of income in the poorest households. Lack of access to modern energy results in air pollution, acute health problems, and environmental problems linked with overconsumption or inadequate management of wood resources (UNECA/OECD, 2011). Without complementary societal and state action, markets can be weak on environmental sustainability, creating the conditions for environmental degradation (UNDP, 2010).

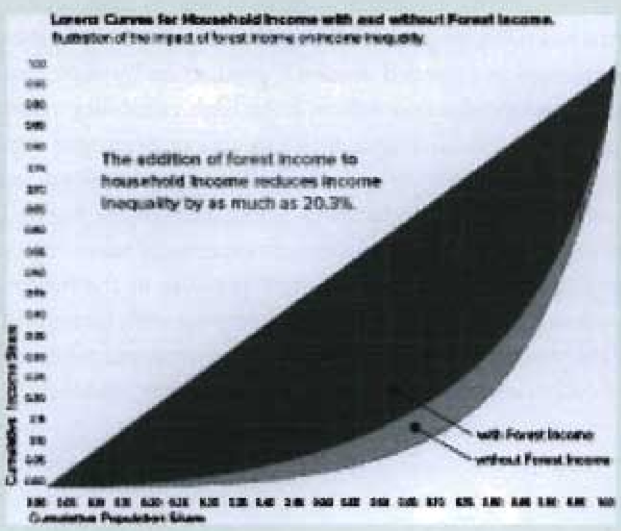
Food production in most of sub-Saharan Africa has not kept pace with population increase over the past four decades. In the region as a whole, food consumption exceeded domestic production by more than 30 per cent in the mid-1990s. In Southern Africa, food production suffers from high variability, reflecting vulnerability to weather conditions due to reliance on rain-fed agriculture in arid or semi-arid regions. Only four per cent of agricultural land is currently under irrigation. In arid or semi-arid regions, lack of irrigation infrastructure constitutes a constraint to increased productivity. Some parts of the region have the potential to extend irrigation networks, as they have large untapped endowments of water resources. Elsewhere, however, renewable water is limited and will come under greater pressure in the future as a result of population increase. Therefore, agricultural demand for water will compete with increasing demand for domestic and industrial purposes. Integrated water resource management approaches, which have been adopted by an increasing number of countries, will be needed to allocate water efficiently (UNECA/OECD, 2011).

Box 16: Forest income and household welfare in rural Nigeria

A recent study by UNU-INRA reveals that forest income reduces both income inequality and poverty in rural Nigeria. Forest dependence can be linked to socioeconomic and cultural consequences. The potential benefits of forest product gathering include daily subsistence and survival, income redistribution and poverty reduction. The potential costs include an increase in carbon emissions caused by forest use and displacement, as well as the destruction of natural habitats and disruption of ecosystems. Socioculturally, the benefits can include a myriad ecosystem services such as fresh water, recreational facilities, firewood, timber, medicine and a role in the local traditions and customs (Fonta et al., 2010).

In the absence of information on linkages between natural resources and sustainable development goals, it is extremely difficult for policymakers to enact locally relevant policies and programmes that can help in forest-led poverty reduction and income redistribution. The poverty impacts of excluding forest income from poverty calculations in rural Nigeria are greater on the poverty depth and severity measures than on the head count ratio. The poverty situation is different when the short-term impact of a ten per cent increase in forest income to rural households' total income is considered. Such an increase is associated with a decline in the number of households in poverty of about 4.9 per cent, and with a decline in the severity and depth of poverty (i.e. 7.6 per cent and 12.4 per cent, respectively). This implies that, while forest income has a limited role in reducing the number of poor, it is more effective in alleviating the depth and severity of poverty.

The Lorenz curve shows that the addition of forest income to household income reduces measured income inequality by as much as 20.3 per cent, all else being equal. Forests thus have an important role in mitigating poverty and income inequality



Source: SDRA-IV Draft Report

5. Social-environmental linkages

The potential for ecosystems to serve as a springboard for the creation of social safety net and poverty reduction are enormous as they provide economic empowerment at various levels. The grasslands that cover up to 40 per cent of the planet's land surface provide economic benefits to over 800 million people worldwide. Well run forest conservation programmes with their timber value can provide employment in the woodworking and woodcrafts industry. Commercial and subsistence fishing provides livelihoods for local people, making marine and freshwater ecosystems important economic resources for regions and communities. Coastal areas provide land for homes and businesses, with nearly one-half of the entire world population living within 120 miles of a coastline. Appropriate policies gauged within the framework of NSSDs can provide a platform for private partnership in the conversion of ecosystem to aquaculture and this can generate employment for current and future generations.

Data from the region shows that the poorest 20 per cent of the population in urban areas are almost six times more likely to rely on an unimproved drinking water source than the richest 20 per cent. In urban areas, the poorest households are 12 times less likely than the richest households to enjoy the convenience and associated health benefits of having a piped drinking water supply in their homes. North Africa is the only region that has already surpassed the MDG sanitation target, increasing coverage from 72 per cent in 1990 to 89 per cent in 2008. In 2010, the highest prevalence of slum conditions was found in sub-Saharan Africa, where 62 per cent of the urban population lived in slums. Particularly critical is the situation in conflict-affected countries, where the proportion of the urban population living in slums increased from 64 per cent in 1990 to 77 per cent in 2010. In view of the foregoing, in April 2011 the Governing Council of the United Nations Human Settlements Programme encouraged countries to enumerate their slum populations and set realistic national, regional and local targets for improving the lives of slum dwellers by 2020. Priorities include housing and basic services, and infrastructure such as water and sanitation facilities, transport, energy, health and education. Countries are also urged to promote access to affordable land with secure tenure and to create the conditions in which people are able to sustain a livelihood (United Nations, 2011).

For the purposes of good governance in the region, the integration of adaptation to climate change into development should be a high priority. However, the threat of climate change tends to overwhelm local efforts towards adaptation. Central government involvement in ensuring better management of physical, social, and financial risk can assist people and communities. For example, a major storm can cause far more damage today than in the past, when fewer people lived in coastal areas (World Bank, 2009). The interlinkage between political governance and environmental sustainability is vital. The proposals concerning technology also apply to some of the international policies for climate change adaptation and mitigation. The present level of disruption to global ecosystem is enormous. This often results in sudden disruption of a variety of ecosystem services, such as reduced biodiversity, reduced access to water in the current locations of significant populations, acidification of oceans, and rapid and wide-ranging changes in land cover. There is a need to avert the wide-ranging social, economic, and environmental consequences of the losses attributed to climate change through appropriate legislation in order to create a better standard of living for those in the community (United Nations/World Bank, 2010). A critical challenge for governments is the establishment of an overall architecture for financing such mitigation and adaptation in order to increase the volume, predictability and sustainability of such financing. It is important that such climate-change-related financing should be consistent with the United Nations Framework Convention on Climate Change (UNFCCC) and the Bali Action Plan, which targets finance for the promotion of sustainable economic development (UNCTAD, 2010). As with droughts and desertification, social and economic development is grossly affected by climate change. Efforts to reduce greenhouse gas emissions need to go hand-in-hand with policies and incentives to adapt to the impacts of climate change (OECD, 2008). Green technologies have the potential to create new industries and jobs.

6. Policies and partnership linkages for sustainable development

Openness to trade is associated with higher incomes and better economic performance. It also has the potential to provide firms and households with access to world markets for goods, services, and knowledge, thus lowering prices, increasing the quality and variety of consumer goods, and fostering specialization of economic activity in areas where countries have a comparative advantage. Trade generates more investment and fosters higher productivity of domestic industries as a result of competition and access to knowledge. Trade is important for generating the positive externalities associated with learning through the diffusion and absorption of technology. However, the quality of infrastructure, education and training, and the labour force, among other factors, will play an important role in determining the relative costs of production and the competitiveness of firms. Furthermore, trade performance and the gains from trade enjoyed by a country also depend on what trading partners do. Foreign market access restrictions may lower (raise) the prices of exports (imports) and have negative effects on terms of trade, incentives to investment, and the growth potential of developing countries. In other words, international policy settings also matter. In order for developing countries to benefit from their comparative advantage (low labour costs, resource endowments) and expand their trade, the restrictions and barriers to their exports of goods and services must be removed, along with anticompetitive practices and distortions in key sectors such as agriculture and services (UNECA, 2008).

A nation's ability to solve problems and initiate and sustain economic growth depends largely on its capabilities in science, technology and innovation as well as political economy. For example, science, technology, and innovation reduce poverty by contributing to economic development. They alleviate hunger by improving nutrition, increasing the yields of cash and subsistence crops, improving soil management, and creating efficient irrigation systems. ICTs can increase education by facilitating distance learning, providing remote access to educational resources, and enabling other solutions. Technological innovations can also improve the condition of women in developing countries by improving energy sources, agricultural technology, and access to water and sanitation. Many health interventions, including the treatment and prevention of malaria, HIV/AIDS, drug-resistant tuberculosis, and vitamin and other micronutrient deficiencies, require new treatments and vaccines. The production of generic medicines holds the promise of improving poor people's access to essential medicines. Improved scientific knowledge, as well as traditional or indigenous knowledge at the local level, will be indispensable for monitoring and managing complex ecosystems, such as watersheds, forests, and seas, and for helping to manage the impact of climate change and the loss of biodiversity. Access to water and sanitation will also require continuous improvement in low-cost technologies for water delivery and treatment, drip irrigation, and sanitation (UNECA, 2008).

In a knowledge-driven global economy, investment in research, science and technology for economic development is central to boosting production, enhancing human capacity and reinforcing the capability of the state. Technological innovation is therefore, at the heart of economic and social development as well as environmental sustainability. Green, sustainable, development-oriented innovation policies need to be emphasized as an integral part of national development strategies. The use of green technologies can have many benefits for developing countries: it can improve domestic infrastructure, help reach underserved communities that lack access to electricity, clean water and sanitation, and create jobs. Given that many green products are initially developed in industrialized countries, technology transfer from developed to developing countries involves the complex process of sharing knowledge, and adapting technologies to meet local conditions is a necessary part of this process. Moreover, innovation is not limited to new breakthroughs: most innovations involve incremental improvements and adaptations of existing technologies. Innovation in this sense is widespread in many emerging markets and developing countries. China and India, in particular, have become global leaders in some green technologies, such as solar photovoltaic (PV) panels, wind turbines, and electric and hybrid-electric vehicles, in part because they were able to improve and adapt existing technologies and production processes. Some low-income countries have also begun to develop domestic technological capacities, successfully adapt green technologies, and build new industries, such as the solar PV industry in Bangladesh. In all cases, government policies have played important roles in the innovation process. Private investors are often unlikely to invest in many new technologies without government support, especially when these technologies are not cost-competitive with the technologies that are already in place. This is the case for many green technologies, in part because market prices do not fully incorporate the societal costs of using brown technologies, such as greenhouse gas emissions and other environmental risks, with which green technologies compete. South-South cooperation should increasingly embrace the technological dimension.

A sustained scaling-up and reform in international cooperation and finance are required in order to achieve the global technological revolution. Within the next three to four decades, individual country efforts and efforts undertaken across the various areas of technology will need to "add up" to the global requirements for reducing environmental degradation while increasing human economic activity in pursuit of poverty eradication. Green industries can be considered infant industries. Restoring State capacities for technological development, particularly in developing countries, is critical. Multilateral trade disciplines, which now heavily restrict industrial development, need to be reformed to enable the dissemination of economic activities based on green technologies fairly to all countries. It is essential to create a publicly led global technology sharing regime and build networks of international technology research and application centres. In order to achieve the global objective of rapid technological dissemination, a greater variety of multilateral intellectual property modalities will have to be deployed. In order to facilitate the introduction of new green technologies, investment rates in developing countries will have to be raised by at least two to four per cent and sustained at the higher level over the next four decades. Affording developing countries macroeconomic policy space is necessary in order to achieve the higher investment rates needed for sustainable development. This will require improved financial regulation coordination, effective controls over volatile private capital flows, and strengthened international financing mechanisms for long-term investments and external shocks (United Nations, 2010a; United Nations, 2011b).

In order to promote sustainable growth and economic transformation, African countries will have to scale up their investment in R&D, which stood at 0.4 per cent of GDP in 2007, compared with Asia, where gross domestic expenditure on R&D (GERD) was 1.6 per cent of GDP. This will also involve, not only better funding of higher education and curricular review, but also ensuring that policies and institutions are in place to facilitate the application of results of scientific investigation, and innovations.

7. Some policy options for addressing interlinkages

The interlinkages described above offer opportunities for effective responses at the national, subregional, regional and sectoral levels. The complexity and magnitude of the interlinkages among the pillars of sustainable development mean that policymakers must prioritize those interlinkages that require immediate attention and that will optimize growth and well-being as a combination of interrelated actions. Such actions will demand better institutional regimes through policy harmonization and monitoring; increased scientific understanding of the interlinkages through science, technology and innovation; and adaptive development governance.

Strengthening governance and institutions, which this report considers a fundamental and overarching requirement for sustainable development, remains pivotal to the achievement of results at all levels where goals, sectors and processes are inextricably linked and mutually interdependent and reinforcing. This should build on developments in the implementation of A21, PFIA and JPOI by ensuring coherence and policy integration in the three pillars of sustainable development, while strengthening implementation, monitoring and accountability. Doing this would limit conflicts, overlaps and potential duplication of activities. National capacities for sustainable development should also be strengthened in order to benefit from the resulting enhanced stakeholder participation. As a basis for this, governments in the region should ensure coherence and consistency in policy formulation and implementation, promote transparency and effective involvement of all relevant stakeholders and strengthen institutional mechanisms in support of sustainable development.

At the regional level, implementation of sustainable development should continue to be pursued through regional and subregional institutions and agencies. This must be supported by improved intra-Africa regional coordination and cooperation on sustainable development with governments and other agencies. The integration of the three pillars of sustainable development should be vigorously promoted through the interlinkages approach. Appropriate and timely financial and technical resources are needed to support the process of effectively integrating the three pillars. Henceforth, bilateral and multilateral agreements should have sustainability assessment criteria, while the AU-NEPAD Programme, which is the region's sustainable development framework, should be given more support by the international community.

The interlinkages of sustainable development elements call for coherence in policies both at the regional and global levels, as well as in domestic and foreign policies such as trade, investment, agriculture and fisheries, taxation, security, innovation, migration, climate and environment (OECD, 2011). Even development cooperation efforts should be supported by mutually reinforcing policies across a wide range of economic, social and environmental issues to ensure greater results and impact (World Bank, 2010). Enhancing policy coherence for sustainable development requires a comprehensive approach to development across all sectors and subregions thus ensuring increased collaboration and knowledge sharing as well as enhanced partnerships. This should be boosted by evidence-based analyses of the costs of incoherent policies vis-à-vis coherent policies; comprehensive assessment and monitoring of the impact of policy in order to ensure sufficiently coherent and consistent policy advice; and identifying more holistic policy options, including any trade-offs or synergies between them. This should also include the setting, monitoring and harmonization of International goals and targets.

Box 17: Rwanda and the Gambia forest policies win global awards*

Two African countries (Rwanda and the Gambia) were declared winners of the 2011 Future Policy Award in recognition of the effectiveness of their respective national forest policy and community forest policy. The awards were given by the World Future Council, a foundation that brings the interests of future generations to the centre of policymaking. Both countries have in different ways applied interlinkages principles in order to create good forest policies.

"Rwanda has sought not only to make its forests a national priority, but has also used them as a platform to revolutionize its stance on women's rights and create a healthy environment," according to the late Prof Wangari Maathai, Founder of the Green Belt Movement, Nobel Peace Prize laureate and Honorary World Future Councillor. the Gambia's Forest Department was one of the first administrations in Africa to introduce a community forest management approach. It has achieved a net forest cover increase of 8.5 per cent over the last two decades.

The policies are considered successful because they acknowledge that environment, economy and empowerment are strongly interconnected. Deforestation, climate change, ecosystem destruction, food and water crises and financial turmoil are interlinked problems and call for courageous regulatory intervention. Rwanda's National Forest Policy, with the ambition of making forestry one of the bedrocks of the economy and the national ecological balance, was implemented in 2004 and updated in 2010. The government is currently implementing an Economic Development and Poverty Reduction Strategy, which considers the reversal of deforestation to be a crucial factor in alleviating poverty, and has set the goal of increasing forest cover to 30 per cent of the country by 2020. Forest cover has already increased by 37 per cent since 1990.

The guiding principles of the National Forest Policy are wide-ranging, going from the development of agro-forestry and sustainable forest management to the protection of endangered plant species and fragile ecological zones. Involving all stakeholders, including public institutions, civil society, private operators, youth associations and women in the implementation of the policy is a priority. The Rwandan people benefit from the restored forests through improved food security.

The Gambia's Community Forest Policy aims to achieve forest management that is both sustainable and socially equitable by recognising the rights of local communities to access forest lands and benefit from managing their own resources. Over 350 villages country-wide now participate in community forestry, owning over 29,000 hectares of land and managing 12 per cent of the country's forests. Despite being one of the world's poorest countries, with a rapidly growing population, the Gambia has managed to achieve a net forest cover increase of 8.5 per cent over the last two decades.

Source: SDRA-IV Draft Report

* An award by the World Future Council, whose partners for the 2011 award were the Secretariats of the United Nations Forum on Forests (UNFF) and Convention on Biological Diversity (CBD), the Food and Agriculture Organization of the United Nations (FAO), and the Forest Stewardship Council (FSC). See story -"African forest policies crowned best in world" at http-//www.africanews.com/site/African_forest_policies_crowned_best_in_world/list_messages/39845.

IV: Means of Implementation of Sustainable Development: Bridging Implementation Gaps

The means of implementation of sustainable development commitments are the financial and technical resources required to achieve specified development results. The continuing development challenges facing the region call for urgent mobilization and more efficient use of resources for the implementation of A21 and JPOI. JPOI called for significant increases in the flow of resources, while WSSD pledged commitment to the implementation of NEPAD through support for regional cooperation and integration and South-South cooperation, among other things. The United Nations Commission on Sustainable Development (CSD) has stressed that the means of implementation as contained in the outcomes of major United Nations conferences and summits are critical to achieving global, regional and national policies on sustainable development. The CSD and its various sessions have therefore called for action to fulfil all commitments on means of implementation. At the Africa Regional Preparatory Conference for Rio+20 in October 2011, delegates stressed the need for governments and the region's development partners to deliver on the means of implementation in order to enable the implementation gaps in the sustainable development agenda to be bridged.

The means of implementation include finance (domestic, external - ODA, FDI, debt relief), education and capacity development, regional integration, trade, transfer of environmentally- sound technologies, and South-South cooperation. At UNCED, countries agreed that financing for the implementation of A21 would come from their own domestic resources, augmented by assistance from development partners. This was reiterated by the outcomes of the Fourth High- Level Forum on Aid Effectiveness held in Busan, South Korea in December 2011. Meanwhile, developed countries have continued to reaffirm their commitment to reaching the United Nations target of 0.7 per cent of GNP for ODA. Some made efforts to reach the target by the year 2000.

A. *Finance for sustainable development*

1. Commitments

The region's governments have on several occasions emphasized their commitment to mobilizing additional domestic resources, as well as improving governance and making the investment climate more propitious in order to attract increased domestic and foreign investment. They recognize the importance of domestic savings and improvements in public revenue collection and the significance of private capital flows as sources for development financing. Developed countries, on the other hand, have committed to reaching the United Nations target of 0.7 per cent of GNP for ODA[17], 0.15 to 0.20 per cent of their gross national income (GNI) to Least Developed Countries (LDCs)[18] and to encouraging the private sector, including transnational corporations, private foundations and civil society institutions, to provide financial and technical assistance to developing countries.[19]

Development partners also have specific commitments with respect to debt relief and innovative financing mechanisms. In 2005 it was estimated that commitments on aid to developing countries would amount to US$ 25 billion a year in 2004 prices and exchange rates by 2010 (Earth Institute, 2011). Further commitments were made in 2009 to increase the resources provided by the international financial institutions

17 1970 General Assembly Resolution. The commitment was reaffirmed at the March 2002 International Conference on Financing for Development held in Monterrey, Mexico in 2002, and at the World Summit on Sustainable Development held in Johannesburg in 2003.

18 The Brussels Programme of Action (POA) for the Least Developed Countries (LDCs) for the Decade 2001-2010, 20 May 2001 available at http://www.un.org/special-rep/ohrlls/ldc/Contributions/Report%20of%20the%20LDC%20III_E.pdf

19 WSSD, Johannesburg Plan of Implementation , X. Means of implementation , §86.d, 2002

(IFIs) in response to the global crisis. There is no donor-wide commitment to development assistance to Africa beyond 2010, though some donors have continued to make individual commitments.

Developed countries also agreed on the need to reduce unsustainable debt burdens through debt relief, debt cancellation and other innovative mechanisms geared to addressing the debt burden of developing countries, in particular the poorest and most heavily- indebted.[20] Specifically, the G8 countries proposed to augment debt relief to countries that reach the completion point under the Heavily Indebted Poor Countries (HIPC) Initiative, leading to 100 per cent cancellation of debt owed by them to the International Development Association (IDA), the African Development Fund (AfDF) and the International Monetary Fund (IMF).[21]

At the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP) in Copenhagen in December 2009, developed countries committed to providing new and additional resources approaching US$ 30 billion in 2010–2012 to address the climate change financing needs of developing countries, and to jointly mobilizing US$ 100 billion a year by 2020 from public and private sources, including alternative sources of finance.[22] To that end, it was agreed to establish the Green Climate Fund as an operating entity of the financial mechanism of the Convention to support projects, programmes, policies and other activities in developing countries related to mitigation, including Reducing Emissions from Deforestation and Forest Degradation (REDD+), adaptation, capacity-building, and technology development and transfer.

2. Action taken and progress made

(a) Domestic resources

Most African governments made substantial progress before the global financial crisis in raising the ratio of government revenue to GDP, which increased from an average of 21 per cent to over 27 per cent between 2001 and 2008 for sub-Saharan Africa; the revenue/GDP ratio exceeded 40 per cent for North Africa in 2008. The domestic savings ratio, which includes both public and private savings, increased less sharply over this period. However, the ratio of revenue to GDP is estimated to have fallen back to 22.7 per cent in 2009 due to the impact of lower commodity prices and tax reductions/exemptions as part of a more expansionary countercyclical fiscal policy. Moreover, revenue performance remains uneven, even among similar countries: although half of Africa is now collecting over 20 per cent of GDP as domestic revenue, a quarter of governments in sub-Saharan Africa still collect less than 15 per cent of GDP in domestic revenue (UNECA/OECD, 2010).

Progress in meeting sectoral allocation targets has been very evident. The increase in domestic savings has been concentrated in resource-rich countries: overall, the savings rate has remained significantly below that of other developing regions (UNECA/OECD, 2011). There has been significant progress on tax transparency and information exchange: nearly 400 tax information exchange agreements have been signed since the G20 Summit in April 2009 (UNECA/OECD, 2010) to limit the illicit flow of capital within and outside the continent.

Another major source of domestic savings is remittances sent by the region's diaspora community, which currently consists of more than 30 million individuals living outside their countries of origin. It is estimated that these migrants jointly contribute about US$ 40 billion in remittances to their families and communities back home every year (IFAD, 2009).

20 Ibid., §89, 2002

21 The proposal is set out in the G8 Finance Ministers' Communiqué entitled "Conclusions on Development", issued on June 11, 2005.

22 UNFCCC 2009, Copenhagen Accord Decision 2/CP.15

(b) External resources

FDI flows declined from US$ 72 billion in 2008 to US$ 58.6 billion in 2009. The decline was equivalent to 0.34 per cent of GDP as a whole. However, inflows to Africa's extractive industries increased, with strong performances by countries such as Algeria, Chad, Equatorial Guinea, Nigeria and the Sudan (UNECA, 2011). External capital inflows contributed significantly to domestic investment and government spending in many countries.

A key initiative in development finance was the recognition by the Monterrey Consensus of "the value of exploring innovative sources of finance".[23] Over the past two decades, there has been a wide-ranging effort to pilot and implement a variety of new mechanisms, mobilizing countries with different levels of development to meet internationally- agreed MDGs. Some of the innovative financing mechanisms that were put in place to support sustainable development in developing countries include: UNITAID; the International Finance Facility for Immunization (IFFIm) for the GAVI Alliance (Global Alliance for Vaccines and Immunization); Advance Market Commitments; the Voluntary Solidarity Contribution for UNITAID; (product) RED and the Global Fund; Debt2Health; Carbon Market; and Socially Responsible Investments.[24]

In June 2005, the G8 proposed that three multilateral institutions, IMF, the IDA of the World Bank, and AfDB, cancel 100 per cent of the debt claims of developing countries that had reached, or would eventually reach, the completion point – the stage at which a country becomes eligible for full and irrevocable debt relief – under the joint IMF-World Bank enhanced Initiative for Heavily- Indebted Poor Countries (E-HIPC).

ODA to Africa is estimated to have risen to US$ 46 billion in 2010, but the 2005 commitments have not been met. This is a record level, but the increase from 2004 is significantly below the level implied by commitments in 2005. While the picture varies between individual donors, some of the main reasons include a shortfall against the global commitments made in 2005, and the fact that the region has received only around a third of the increase since then, instead of the half assumed at the time (UNECA/OECD, 2011).

Not enough progress has been made with regard to climate finance. The Green Fund, which was first included in the Copenhagen Accord, was established at COP-16 in Cancun. COP-17 in Durban committed to making the Fund fully operational in 2012. Furthermore, flows of fast-start finance, to which developed countries committed at COP-15 in Copenhagen, are yet to pick up, and persistent lack of transparency in country allocations and selection of activities remains. African countries have been calling for the establishment of an African Green Fund to be managed by AfDB from which priority mitigation and adaptation projects on the continent could be financed. Such a regional fund would facilitate access to resources and speed up disbursement of fund proceeds.

23 Monterrey Consensus on Finance for Development, Paragraph 44, 2002, available at http://www.un.org/esa/ffd/monterrey/MonterreyConsensus.pdf

24 Douste-Blazy. P. Innovative financing for development the i– 8 group Leading Innovative Financing for equity (L.I.F.E.) http://www.un.org/esa/ffd/documents/InnovativeFinForDev.pdf

Box 18: Official Development Assistance to Africa

(a) Evolving Trend

In 2008, official development assistance (ODA) stood at US$ 121.5 billion. This represented the peak over the years until 2009. Prior to 2008, ODA had been on the decline, hovering around US$ 108 billion. ODA figures consist of technical cooperation (grants and technical assistance), soft loans, humanitarian assistance and debt relief. These resources come predominantly from OECD Development Assistance Committee member countries and the international financial institutions. Non-DAC southern countries such as China, India, Brazil and South Africa are not included. In their present state, a large majority of African countries, unlike their counterparts in other developing regions will need substantial development aid in order to achieve the MDGs. Without a substantial increase in aid over the current level, the goals will be unattainable. On average, aid represents less than one per cent of government spending in OECD countries. An increasing number of development partners are meeting their aid commitments despite the economic challenges facing them. ODA to Africa is on the increase, even though the present increase is falling short of the target set by the G8 at its Summit in Gleneagles, Scotland, on 7-8 July 2005 to increase aid to developing countries by US$ 50 billion by 2010, of which about US$ 25 billion was to go to Africa. In 2009, net bilateral ODA to Africa amounted to US$ 27 billion, an increase of three per cent in real terms over 2008. Of this, US$ 24 billion went to sub-Saharan Africa, an increase of more than five per cent over 2008. In 2009, total net ODA from members of the OECD Development Assistance Committee rose in real terms by 0.7 per cent to US$ 119.6 billion.

(b) Issues in Aid Effectiveness

Aid is important for development in Africa, especially sub-Saharan Africa. Its significance is measured by the share of aid in national budgets. As a percentage of government expenditure, the share ranges between 0 per cent and 771 per cent. On the low side are countries such as Algeria with one per cent; South Africa, two per cent, Morocco, eight per cent, and Namibia, 12 per cent. On the high side are countries, such as Liberia, 771 per cent; Guinea Bissau 220 per cent; Rwanda, 200 per cent; Central African Republic and Madagascar, 190 per cent; Mozambique 165 per cent; Ethiopia, Mali and the Niger about 130 per cent; the Democratic Republic of the Congo, 125 per cent; Guinea Conakry, Zambia and Uganda about 90 per cent. There is therefore a very high level of aid dependence on the continent, which makes the case for effective management of aid a significant issue and this led to the establishment of the Africa Platform for Development Effectiveness (APDev).

Although aid flow is influenced by international aid policy, strategy and management framework, which are based principally on a common understanding among major donors, it is still very evident that each donor country or international financial institution has its own policy, strategy, and monitoring and evaluation system. Each recipient of aid therefore still has to contend with a multiplicity of aid policies, strategies, monitoring and reporting requirements. An attempt to harmonize policies, practices, conditionalities and implementation requirements across donors led to the 2 March 2005 Paris Declaration on Aid Effectiveness. The declaration, which was signed by more than 100 ministers from donor and recipient countries, provides principles for aid management. Targets set in the implementation of the Paris Declaration fall due in 2010. The evaluation report will provide indications as to how far both donor and recipient countries have been able to live up to the expectations of the principles, identify shortcomings and make proposals for closing implementation gaps. The Accra Agenda for Action of September 2008 reinforces the Paris Declaration and places emphasis on the need to manage for development results. It notes that development effectiveness will not be achieved without attention to cross-cutting issues such as gender equality, disability, environmental sustainability, human and women's rights, as well as planning and resource allocation based on gender-disaggregated data. It also emphasizes the need for capacity development in recipient countries to ensure the availability of skills, technical competence, knowledge, systems, processes, procedures and practices required for effective management of the development process. Hence, today the principles of the Paris Declaration and the cross-cutting issues emphasized by the Accra Agenda for Action have become key elements of the present international aid architecture.

(c) Levels of Official Development Assistance in 2010

At the Gleneagles and Millennium +5 summits in 2005, development partners pledged to increase aid. OECD estimates indicate that this implied an increase in aid from about US$ 80 billion in 2004 to nearly US$ 130 billion in 2010 at constant 2004 prices. Based on donors' budgets for 2010, commitments made for the year by donors indicate that ODA for the year will hover around US$ 126 billion at constant 2004 prices. This will amount to an increase of US$ 46 billion over 2004 commitments, which falls slightly short of the original US$ 50 billion estimate. This is however not the final outlook for 2010. The actual out-turn is lower. While a number of countries have maintained their ODA commitments for 2010, some, including large donors, have actually reduced or shelved the pledges they had made for 2010. On the basis of the latest estimates by the OECD Secretariat based on the most recent 2010 budget proposals and gross national income figures, the overall estimated ODA figure for 2010 will be at US$ 108 billion at 2004 constant prices. If expressed in 2009 constant prices, the ODA figure for 2010 will amount to US$ 126 billion, representing an increase of about US$ 6 billion over commitments in 2009.

Despite the shortfalls against commitments, ODA increased by nearly 30 per cent in real terms between 2004 and 2009, and is expected to rise by nearly 30 per cent between 2004 and 2010. This is the largest ever increase in ODA over such a period. The continued growth in ODA has shown that aid pledges are effective when backed by adequate resources, political will and firm multi-year spending plans. Unlike other financial flows to developing countries, which have plummeted sharply as a result of the effect of the global financial crisis, ODA will continue to grow in 2010.

Box 19: Official Development Assistance, 2009

In 2009, the largest donors by volume were the United States, France, Germany, the United Kingdom and Japan. Five countries exceeded the United Nations ODA target of 0.7 per cent of GNI: Denmark, Luxembourg, the Netherlands, Norway and Sweden. The largest percentage increases in net ODA in real terms were from Norway, France, the United Kingdom, Korea (which joined the DAC with effect from 1 January 2010), Finland, Belgium and Switzerland. Significant increases were also recorded in Denmark, Sweden and the United States. In 2009, the United States was the largest donor, providing US$ 28.7 billion in net ODA flows, representing an increase of 5.4 per cent in real terms over 2008. Its ODA/GNI ratio rose from 0.19 per cent in 2008 to 0.20 per cent in 2009. Total net US ODA flows increased to each region, particularly to sub-Saharan Africa (+10.5 per cent to US$ 7.5 billion). ODA also increased significantly to Afghanistan (+39.5 per cent to US$ 3 billion). US net ODA to the group of Least Developed Countries (LDCs) increased by +13.6 per cent to US$ 8.1 billion. Japan's net ODA fell by 10.7 per cent in real terms to US$ 9.5 billion, representing 0.18 per cent of its GNI. The fall was mainly due to the fact that debt relief, notably for Iraq, fell compared to 2008. However, contributions to international financial institutions increased significantly in 2009. The combined net ODA of the fifteen members of the DAC that are EU members fell slightly (-0.2 per cent) to US$ 67.1 billion, representing 0.44 per cent of their combined GNI. DAC-EU ODA represented 56 per cent of total DAC ODA.

In real terms, net ODA rose in seven DAC-EU countries as follows:

- Belgium (+11.5 per cent), due to a general scaling up of its aid;
- Denmark (+4.2 per cent);
- Finland (+13.1 per cent), as it increased its bilateral aid;
- France (+16.9 per cent), due to an increase in bilateral lending and contributions to international organizations;
- Luxembourg (+1.9 per cent);
- Sweden (+7.4 per cent), as it continued to achieve an ODA level of one per cent of its GNI;
- United Kingdom (+14.6 per cent), reflecting the scaling up of its bilateral aid.

Aid fell in the following DAC-EU countries:

- Austria (-31.2 per cent), due to reduced levels of debt relief compared with 2008;
- Germany (-12.0 per cent), as reduced debt relief outweighed significant increased bilateral aid;
- Greece (-12 per cent), reflecting tightening ODA budgets due to fiscal pressure;
- Ireland (-18.9 per cent), due to budgetary pressures;
- Italy (-31.1 per cent), due to a decrease in overall aid and reduced debt relief;
- Netherlands (-4.5 per cent);
- Portugal (-15.7 per cent);
- Spain (-1.2 per cent) though significant spending approved late in 2009 will only take effect in 2010, maintaining the upward trend of its ODA.

Aid by EU institutions rose by 4.4 per cent to US$ 15 billion, mainly due to an increase in grant programmes. Net ODA rose or fell in other DAC countries as follows:

- Australia (-1.4 per cent) due to high debt relief levels in 2008 which did not continue into 2009;
- Canada (-9.5 per cent), following a large contribution to IDA in 2008 and a reduction in debt relief ;
- Korea (+13.5 per cent), due to an increase in bilateral loans;
- New Zealand (-3.2 per cent);
- Norway (+17.3 per cent), due to an increase in its bilateral aid;
- Switzerland (+11.5 per cent), due to special debt relief for Togo and increased costs for asylum seekers being counted in its ODA.

Gross ODA (i.e. ODA without subtracting loan repayments) in 2009 amounted to US$ 132.7 billion. The largest donors were: the United States (US$ 29.5 billion), Japan (US$ 16.5 billion), France (US$ 15.3 billion), Germany (US$ 13.3 billion) and the United Kingdom (US$ 11.7 billion).

The following non-DAC members reported changes in their net ODA in 2009 as follows:

- Czech Republic (-4.7 per cent);
- Hungary (+21.7 per cent), due to an increase in its bilateral programmes;
- Iceland (-11.7 per cent) due to budgetary pressures;
- Poland (+13.2 per cent);
- Slovak Republic (-18.9 per cent), as its bilateral assistance was reduced;
- Turkey (+2.1 per cent).

Source: Excerpts from OECD

3. Constraints and challenges

The current financial system is characterized by instability and highly uneven distribution of capital, whereas African countries need adequate long-term capital flows to sustain growth capable of reducing poverty. Indeed, while Africa had experienced six years of strong growth mainly driven by robust global demand and high commodity prices, the global financial crisis pulled the growth trend down to two per cent in 2009 (UNECA, 2011). Although the region has in general benefited from FDI flows, concerns remain over the distribution of benefits between origin and host countries. FDI continues to be channelled mostly to extractive industries, and exhibits high sensitivity to changes in ore prices, and does not always lead to strong multiplier effects for local economies. It comes with limited job creation and technology transfer, and severe impacts on the environment. While domestic savings had followed an upward trend for the previous decade, in 2009 this positive trend was interrupted and Africa experienced a sharp drop in savings, and tax ratios have also remained low with 11 African countries raising less than 15 per cent of GDP in taxes. Structural constraints and the effect of the financial crisis pose a serious challenge to increased government revenues (IMF, 2010).

Africa was compromised by US$ 854 billion in illicit financial outflows between 1970 and 2008. The most affected countries were: Nigeria (US$ 89.5 billion), Egypt (US$ 70.5 billion), Algeria (US$ 25.7

billion), Morocco (US$ 25 billion), and South Africa (US$ 24.9 billion) (Global Financial Integrity, 2010). Policy measures are needed to address the factors underlying illicit outflows. In addition, African countries must impress upon the G20 the need for enhanced transparency and tighter oversight of the international banks and offshore financial centres that absorb these flows.

ODA to Africa increased sharply in the post-Monterrey period but the target of 0.7 per cent, confirmed at Monterrey is still out of reach and the quality of aid needs to improve. Innovative sources of finance have been developed and many initiatives have emerged. Both as a percentage of GDP and of exports, debt has declined since Monterrey and 21 African countries have reached the completion point under the HIPC Initiative. Sustainability remains a problem as a result of new borrowings associated with the shocks of 2008, however.

Progress in the area of systemic issues has been disappointing. Despite its size, the region still has too little voice in international institutions such as WB, IMF and WTO and at the G20. Furthermore, Africa's specific needs are not well taken into account in the current debate on reshaping the international financial architecture. Africa has already been significantly affected by the food and fuel price shocks of 2008. It is now affected by the downturn in the global economy, speculations on commodity prices and increasing investment in biofuels, which in return aggravates the food crisis and leads to social distress and unrest in the region.

4. Lessons learned and way forward

(a) Domestic resources

Tax revenue and the rationalization of government expenditures are two of the main means of increasing domestic resources. African states have identified the need to strengthen tax collection and enhance the effectiveness and efficiency of government expenditure. There is a need for African governments to strengthen domestic revenue mobilization and attract investment through national policies that promote investment, joint ventures and other modalities. Governments, with support from the wider international community, should tackle the loss of tax revenue through offshore non-compliance, and illicit financial flows. In order to reduce the loss of domestic savings resulting from capital flight, African countries have also recognized the need to become attractive locations for residents to hold their wealth through conditions that promote private sector investment, both domestic and foreign. Lastly, countries in the region have put forward the establishment of Special Drawing Rights for Africa and the extension of debt relief beyond its current levels as additional means for raising development resources.

In general, countries will need to adopt more proactive approaches to the mobilization of development finance if the region is to make a great leap in the implementation of sustainable development commitments.

(b) External resources

With respect to external sources of development finance, the region will need to ensure that FDI flows are channelled to sectors and activities that can support the pursuit of national development strategies. Balanced flows should be encouraged but with greater concentration on sectors where FDI can provide value addition, promote job creation, enhance transfer of technology and know-how, and protect the environment. Developed countries should support the efforts of African governments to mobilize domestic revenue by significantly intensifying efforts to tackle issues such as tax havens, transfer pricing and illicit capital flows. They should also enhance support for reducing the transaction costs of remittances.

Development partners need to deliver their commitments in full and in a predictable manner in order to enable partner countries to plan effectively. They should honour existing commitments to increase global

ODA over the period 2010–2015, and increase the region's share so that it has greater resources with which to address its high level of poverty by 2015. There is also a need to accelerate significantly efforts to improve aid effectiveness in order to reach the targets agreed in the Accra Agenda for Action and commitments made at the Busan 4th HLF in December 2011. Although it is the region that contributes least to the problem of climate change, Africa will be profoundly affected by the consequences. It therefore has a major stake in international climate change negotiations. It is important that developed countries deliver the commitments made at Copenhagen and Cancun on climate finance and ensure that access to such finance is cost-efficient.

B. *Development effectiveness*

1. Commitments

Major global commitments on aid effectiveness are enshrined in the Paris Declaration on Aid Effectiveness (2005) and the Accra Agenda for Action (2008). The Paris Declaration commits donors and partner countries to increasing efforts to harmonize, align and manage aid in order to achieve results, with a set of monitoring actions and indicators. The Accra Agenda builds on these commitments. In addition to the aid effectiveness agenda, greater emphasis is placed on development effectiveness: achieving the objectives of development is not just a matter of aid flow, but also of ensuring that financial and human resources are used effectively. While aid effectiveness focuses on ODA and its efficient and effective use, development effectiveness reflects the extent to which an institution or intervention, whether financed domestically or externally, has brought about targeted change in a country or the life of the individual beneficiary.

2. Action taken and progress made

The aid effectiveness agenda has drawn strong support from developing countries, civil society organizations, parliamentarians, global partnerships and donors worldwide. It has also contributed to progress in achieving several MDGs, helping to produce an impact more quickly and at a lower cost. And while it is essentially about the quality of aid, it has underpinned significant increases in annual aid flows. Developing countries are increasingly discussing their national development strategies with their parliaments and electorates (ownership); donors are increasingly aligning their aid with national strategies, and are working towards streamlining their efforts in-country (harmonization) (OECD, 2008).

The OECD (2008) summarizes progress made on the aid effectiveness agenda. The survey is based on responses by some 60 developing countries, many of them in Africa.[25] Progress is most evident in commitments to untie aid, improve the quality of developing countries' public financial management systems, and improve the quality of technical assistance. With respect to country ownership, there are some encouraging examples. Zambia, for instance, has made good progress, deploying operational development strategies, introducing the Medium-Term Expenditure Framework, and formulating a new aid policy and strategy. Burkina Faso has also made good progress, stepping up its efforts by establishing a strategic framework for development with clear priorities.

Concrete goals with targets are increasingly employed for mutual accountability. The Africa Subregional Meeting on Mutual Accountability (Dar es Salaam, The United Republic of Tanzania, 24-25 January 2011) pointed out that mutual accountability should be understood in the broader context of all development results, not just aid effectiveness. In this respect, the experience of Ghana in the use of Performance Assessment Frameworks to cover not only general budget support, but all aid modalities and even non-traditional donors, is worthy of note.

25 Benin, Burkina Faso, Burundi, Cape Verde, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Egypt, Ethiopia, Gabon, Ghana, Côte d'Ivoire, Kenya, Liberia, Madagascar, Malawi, Mauritania, Morocco, Mozambique, the Niger, Nigeria, Rwanda, Senegal, Sierra Leone, the Sudan, The United Republic of Tanzania, Togo, Uganda and Zambia.

Building partnerships for development is a principle enshrined in the Paris Declaration and reinforced in the Accra Agenda for Action. Indeed, experience has shown that strategic partnerships can significantly increase the impact of aid. African countries are represented in the Working Party on Aid Effectiveness, where a variety of topics related to aid effectiveness are debated and guidance developed. With the Working Party due to be phased out in June 2012, as one of the outcomes of the 4th HLF, the emerging Global Partnership for Development Effectiveness Cooperation will provide an enhanced platform for Africa's representation and participation in the monitoring of the implementation of the outcomes from the Busan Forum.

In addition to the need for aid effectiveness, development effectiveness is a critical element of sustainable development in Africa: development must be driven by robust, private sector-led growth, and effective and accountable States must be able to finance their development needs from their own revenues. African governments have shown strong commitment and political leadership towards development effectiveness. For instance, under the coordination of the AU and its NEPAD Agency, the African Platform for Development Effectiveness[26] was launched in March 2011 to bring consultation, coordination and a common voice to Africa's development, and a focus on capacity development, aid effectiveness and South-South cooperation.

There is anecdotal evidence supporting increasing efforts for aid effectiveness as a tool for development effectiveness. An analysis conducted by the World Bank shows that the way rural water supply programmes were financed in Ethiopia affected their impacts: schemes financed through parallel procedures and/or by undermining local accounting and procurement resulted in the lowest utilization rates. In Mozambique, following the floods of 2000, reconstruction programmes funded through the government's own budget were able to rebuild schools much more quickly than those funded through parallel systems. There is therefore an urgent need now to shift the focus to implementing best practice rather than generating more guidelines (OECD, 2008).

3. Constraints and challenges

The integration of ODA into national budgets is still poor. Furthermore, there has been limited progress in improving the quality of national development plans and, even in countries that have made progress, linking strategies with budgetary resources remains a challenge. Development partners need to step up their efforts to coordinate missions and studies. African governments, with their partners, need to develop and implement frameworks to monitor and account for results.

The existing fragmentation of monitoring and reporting systems means that developing countries' own systems are underused or undermined. This is illustrated by cases such as the Morogoro district in The United Republic of Tanzania where district health officials spend 25 working days each quarter writing reports for donors instead of delivering services (McKinsey, 2004). Moreover, there seems to be no correlation between the quality of public finance management (PFM) and the use of a country's system by donors, as demonstrated by the case of Ethiopia, which has one of the highest scores for quality of PFM, yet the use of the country's system by major donors has hovered around an average of 45 per cent. In Rwanda, where PFM showed significant improvement between 2005 and 2008, use of its system has improved only marginally, from 39 per cent to 42 per cent. In Ghana, where the quality of PFM rose appreciably, the use of its system by donors actually declined.

Non-DAC (Development Assistance Committee) aid providers, including global funds and private foundations, have an increasingly important role in terms of volume and delivery modalities, yet they tend to follow their own rules. The increasing importance of South-South cooperation poses challenges to aid ef-

26 http://www.africa-platform.org/

fectiveness, with middle income countries (MICs) building horizontal partnerships to share development experiences and knowledge. Recipient countries are often ill-equipped to deal with these new partners, who have different conditionalities and aims. The balance between grants and concessional loans is also very different, raising key questions about the sustainability of South-South cooperation, in particular between developing and emerging economies.

4. Lessons learned and way forward

Commitments on aid effectiveness are relatively new, and it is still too soon to make an accurate assessment of the benefits of the changes they have brought about. One of the key lessons that can be drawn from the progress to date is that capacity and confidence in national systems are key factors if aid effectiveness is to be instrumental for development effectiveness. In order to be truly supportive of long-term sustainable development, aid effectiveness must be seen in the broader context of development effectiveness. Enhanced investment in long-term human and institutional capacity development, knowledge and learning are required if the region is to be able to lead its own development agenda. In this regard, the use of countries' own systems – at the same time supporting their efforts to strengthen them – should become the norm: not only would this decrease transaction costs and increase aid effectiveness, it would also further strengthen countries' institutional structures, thus furthering the development effectiveness agenda.

While the efforts of development partners are appreciable, it is crucial to ensure that best practices are implemented more widely. In this regard, non-traditional development partners, such as emerging economies, foundations and global funds, should adhere to the Paris Declaration and the Accra Agenda for Action, aligning their interventions to national strategies and priorities, reducing the transaction costs associated with their support, and ensuring long-term sustainability by transferring know-how and technologies, as appropriate. The Fourth High- Level Forum on Aid Effectiveness held in Busan, Korea, from 29 November to 1 December 2011, offered a unique opportunity to address the outstanding issues in the aid and development effectiveness agendas. These issues included: partnerships for development effectiveness and for addressing global public concerns; diverse sources of finance; and fostering knowledge, expertise and institution- building.

C. *Technology development and transfer*

1. Commitments

Within the context of A21,[27] JPOI and the NEPAD frameworks, countries committed to a number of technology transfer initiatives. They pledged to:

a. Enhance incentives to stimulate the transfer of environmentally sound technologies by companies, in particular to developing countries;
b. Promote access to and transfer of patent-protected environmentally- sound technologies and the purchase of patents and licences on commercial terms for transfer to developing countries on non-commercial terms as part of development cooperation for sustainable development, taking into account the need to protect intellectual property rights;[28]
c. Stimulate joint ventures between small and medium-sized enterprises in developed and developing countries and countries with economies in transition, and cleaner production programmes in public and private companies;
d. Examine financial intermediation for the financing of environmentally-sound technologies, such as "green credit lines";

27 UN General Assembly 1997, Programme for the further implementation of Agenda 21. Transfer of environmentally sound technologies, adopted by the General Assembly at its nineteenth special session (23-28 June 1997).

28 Rio Conference, Agenda 21, Section IV Means of implementation. Chapter 34, § 34.18 ii, available at http://www.un.org/esa/dsd/agenda21/res_agenda21_34.shtml

e. Provide financial resources to developing countries and develop financial mechanisms for the acquisition of environmentally sound technologies;
f. Take into account the outstanding issues in the draft international code of conduct on transfer of technology, as decided by the United Nations Conference on Trade and Environment (UNCTAD) at its eighth session, held at Cartagena de Indias, Colombia, in February 1992; and
g. Support African countries in developing effective science and technology institutions and carrying out research activities at world-class standard.

2. Action taken and progress made

Most of the technological applications now used in the region were created using knowledge derived from R&D investment by other countries. Many of these business models and practices do not differ radically from those in use in the same sectors in developed countries (e.g. the Western Union money transfer system and Internet banking). Similar benefits of technology acquisition in Africa have been recorded even in traditional sectors such as agriculture, energy and mining (UNECA, 2011c).

Although Africa does not feature highly among the top locations attracting R&D projects, a few countries, such as Algeria, Tunisia, Egypt and South Africa, seem to have benefited from this trend. The most significant development in Science, Technology and Innovation (STI) in the region in the last decade is the establishment of the NEPAD Science and Technology Consolidated Plan of Action (CPA) and the AU African Ministerial Council on Science and Technology (AMCOST), which oversees the implementation of the CPA. The CPA identifies key priority areas for Africa to work on, and the strategies and policy processes for their implementation. The United Nations supports NEPAD science and technology through its UN science and technology cluster, consisting of more than ten agencies working through the Regional Coordination Mechanism (RCM) coordinated by UNECA, in close collaboration with AUC and AfDB.

Recent focus on science-based sustainable modernization of agriculture and rural transformation through CAADP and AGRA is very encouraging. Several countries are participating through plans for modernizing agriculture or agriculture-led industrialization strategies. Uganda, Malawi, Nigeria, Ghana and Ethiopia are promising examples of this.

As regards ICT, a number of countries have developed national information and communication infrastructure policies and plans in the framework of the African Information Society Initiative, which establishes the necessary guidelines and institutional mechanisms to promote an environment favourable to competition and investment. As far as the transfer of environmental technologies is concerned, few technology transfer frameworks have been established over the past two decades that benefit the region, but those that have include the clean development mechanism (CDM), the main market instrument of the Kyoto Protocol that is designed to transfer technology from developed to developing countries.

3. Constraints and challenges

Science, Technology and Innovation have an important role to play in the attainment of the region's sustainable development objectives. Yet, these are activities that have received the most inadequate support in the region. Africa's continued low investment in science and technology is also manifested in the declining quality of science and engineering education at all levels of educational systems. Institutions of higher learning, particularly universities and technical colleges, are in urgent need of renewal after many years of neglect and disorientation from local and national priorities. However, developments at the international and regional levels since 2000 have provided new sources of optimism and action.

Other problems plaguing the region's science, technology and innovation system include weak links or a lack of links between industry and science and technology institutions and a mismatch between R&D activities and national industrial development strategies and goals. As a result, research findings from public research institutions are not accessed and used by local industries, particularly small and medium-sized enterprises.

The transfer of technological knowledge is often an issue that is not well addressed by the countries of the region. For example, Africa registered limited increase in R&D expenditure, attracted very few R&D projects, and recorded the lowest growth in foreign patent applications and trademarks granted. There are very few R&D experts in the region. In many countries, infrastructure for R&D has been neglected and is decaying. It is on record that Africa is the only region where patent applications actually fell over a period of about 15 years, 1990 - 2004 (WIPO, 2005).

4. Lessons learned and way forward

Access to technology is a vital resource for implementing sustainable development commitments. It is instrumental in improved management of the environment and natural resources, helping to sustain the economic activity that relies on them. It can also create new economic opportunities. Thus, a transition to a green economy provides an opportunity to adopt policies and legislation that encourage technology transfer. Thus policies and practices that address issues of intellectual property rights, the removal of trade barriers to the transfer of green technologies, and international cooperation on green technology transfer in sectors such as agriculture, renewable energy, transport and water will greatly facilitate the implementation of sustainable development commitments.

Similarly, the creation of an enabling environment for the transfer of environmentally- sound technologies will require positive action by governments with respect to fair trade policies and practices; removal of technical, legal and administrative barriers to technology transfer; as well as sound economic policy, regulatory frameworks, and transparency, all of which contribute to the creation of an environment conducive to private and public sector technology transfer. Capacity-building in the area of technology is needed to enable the region achieve a smooth transition towards a low-carbon economy and sustainable technological growth.

The measures that countries could implement to promote technology transfer and innovation include the following:

a. Promoting industry-academia-government partnerships to identify, acquire, adapt, upgrade and disseminate new and emerging technologies, as well as incubate and nurture start-ups. Each of these players brings unique advantages that could reduce the costs and risks associated with technology transfer;
b. A contracting process that facilitates technology transfer and encourages joint ventures and projects between domestic and foreign firms, and between domestic industries and R&D centres;
c. Establishing industrial alliances between domestic and foreign firms, especially those in which the government participates, invests or acts as guarantor in order to promote technology transfer, learning and innovation; and
d. Promoting international science and technology cooperation agreements between African countries and leading or emerging technology exporters through joint research projects, exchange of expertise and knowledge, pooling of resources and exchange of good practices.

Other measures, such as incubators, science parks, and industrial districts could be tailored to promote these models and vice-versa. The main objectives behind each of these are to encourage private sector involvement in innovation; leverage limited human, financial and institutional resources through partnerships and cooperation; and encourage learning through exchange of best practices and wider diffusion of technology.

D. Capacity development

Capacity is one of the most significant means for the implementation of sustainable development commitments. It gives the ability to set priorities, develop programmes, design appropriate implementation frameworks, and monitor and evaluate the performance of each of the pillars. Countries in the region must develop their skills and institutions, build their infrastructure, upgrade their education systems and provide public services. To this end, a country's or region's capacity development programme must derive from its development agenda. Thus the region's capacity development programme must reflect the requirements for the delivery of the AU-NEPAD sustainable development framework. It must respond to the need for effective leadership, appropriate behavioural changes, strong and responsive institutions, effective policies, an environment conducive to citizens' participation in governance and policy processes, and the space to innovate and generate new knowledge. The capacity development process requires coordination and should focus on all spheres of governance, from the community to the local, as well as the national, subregional and regional levels, including key institutions and stakeholders. Sector-specific capacity-building strategies need to be strengthened, well targeted and coordinated.

Box 20: Sustainable development as a capacity challenge

(a) The Africa region's capacity needs

Africa's foremost growth and development challenge in the 21st century is capacity deficit in virtually all sectors of the region's economies. The achievement of the MDGs is the most daunting of capacity challenges facing Africa today. A majority of countries on the continent (33 of which are among the world's poorest) are faced with the stark reality that the MDGs will not be attained by 2015. The challenge of achieving sustainable growth, human development and poverty reduction remains enormous for sub-Saharan Africa. Leadership needs strengthening to deliver effective development results on the continent. A significant improvement in the quality of governance is vital for progress. Capacity is required to secure the gains made in the fight against the HIV/AIDS pandemic and expand the frontiers of successes further, as the pandemic remains the most serious threat to capacity for growth and development. Peace is a vital resource for growth and development. Yet it is very fragile on the continent. The challenge to stave off conflict, manage post-conflict reconstruction and rehabilitation and promote national reconciliation and all-stakeholder participation in the growth and development process is one that draws on enormous capacity. Peace that is not won through good governance and democratic processes does not provide a secure future for sustainable growth. Conflict management is a huge capacity challenge. Africa has, however, made tremendous progress in cultivating peace and sowing the seeds of democratic stability over the years, and these gains must be sustained.

Africa still faces the challenge of developing a private sector that is an engine of growth. The public sector remains dominant in economic activities, but with very limited employment opportunities. Capacity is needed to continue to reform policies and institutions for stability in the macro-economic environment; provide socio-economic infrastructure, efficient public services and security for private investment; and address constraints and inefficiencies in the legal and regulatory frameworks in order to promote the growth of an investment-friendly business climate. Africa continues to suffer the afflictions resulting from a brain drain, weak tertiary educational institution and poorly-resourced research institutions. The capacity for research and development, a key source of innovations, is far from adequate. The continent is not very visible in the generation of new knowledge to augment efforts at finding sustainable solutions to either regional or global development challenges.

Africa needs capacity to make regional cooperation and integration work more effectively in order to deliver development results. Regional integration and cooperation commitments are signed off by regional economic communities with little or no capacity to deliver on them. The inability to effectively push back the frontiers of regional integration has had adverse impacts on the level of intra-African trade. There is growing evidence that more trade now occurs within regional blocs, an area where Africa has made little progress, in spite of the existence of a large number of RECs. Africa needs capacity to take advantage of the benefits accruing from South-South cooperation, which the RECs also represent. Also needing attention is capacity to negotiate trade effectively, expand information and communications technology penetration, and contribute to the knowledge revolution that has seen knowledge become one of the most significant inputs in the growth and development process in the 21st century.

Lastly, Africa needs to step up its capacity to benefit from and manage development assistance more effectively. Africa is a major recipient of official development assistance from bilateral and multilateral donors, but benefits only minimally from private capital flows. Development aid has been a very important element in capital transfers to Africa for decades. The continent receives the highest share of aid per capita of all developing regions. The level of aid dependency varies across countries. The present range is between 0 per cent and 771 per cent. Given this level of dependency, Africa needs continuously to assess the effectiveness and quality of the development assistance it receives, the extent to which the principles of the Paris Declaration of March 2005 are adhered to by the continent and its development partners, and the degree to which the Accra Agenda for Action is implemented.

(b) Capacity development challenges

Present interventions in Africa's capacity needs have shown remarkable results in spurring policy reforms, assisting in developing infrastructure, strengthening governance and building a knowledge base to support the growth and development process. As a result of interventions, African policymakers and development managers now listen more, consider alternative perspectives from civil society and leverage expertise and experiential knowledge to strengthen the policy formulation process as best they can. Africa is very different today from what it was in the 1980s. The region has progressed from a state of near despair to one of hope, and potential for sustainable development results.

In spite of this progress, however, the continent still has not secured the much needed breakthrough to sustainable long-term growth. The vision for growth and development still points to the need to revisit the continent's growth and development strategy. While political governance has improved, far more is needed in order to achieve development results. The concern is not simply with the legal and governance frameworks for long-term sustainable exploitation of the continent's huge natural resources and the transparent use of the financial resources that accrue from them; it is fundamentally the absence of national and regional systems of innovation to guide the growth and development process – from agriculture to mining, from manufacturing to public service delivery – around which African countries could build long-term sustainable growth. The growth and development challenge today is about investing in infrastructure, supporting agriculture, improving the business environment, and promoting good political governance, all of which are essential, in addition to the fundamental challenge of promoting innovation. The continent needs capacity that generates the innovative ideas required to transform socio-political and economic governance, public service and industry. The most important innovations needed are incremental improvements in products, services, systems, processes, procedures and practices through a more systematic use of knowledge and skills.

1. Commitments

The commitments contained in A21, the PIA21 and JPOI range from primary education for all to the integration of sustainable development in school curricula, the establishment of vocational training centres to develop specific skills, and strengthening of the scientific basis for sustainable management. Capacity-building is a cross-cutting issue in all areas of sustainable development. Developing countries and development partners have reaffirmed the MDG commitments on primary education, also strengthening their support for secondary education, continuous learning and vocational training that respond to the specific needs of communities. WSSD called for supporting initiatives at all levels to develop, use and adapt knowledge and techniques, enhance networks and regional centres of excellence, assess capacity-building needs, and design and implement strategies to address them.

As a cross-cutting theme, capacity development also features prominently in commitments in the context of trade negotiations and specific MEAs, where African governments and development partners have committed to strengthening the capacity of developing countries to: implement trade policies that are conducive to sustainable development; foster public-private partnerships; promote policies conducive to sustainable management of their natural resource base; and enhance their capacity to meet commitments under MEAs, including those related to planning and reporting, and capacity needs assessments.

2. Action taken and progress made

Over the years, the region has made progress through country and subregional level efforts, as well as with the support of development partners, to respond to its capacity constraints. African governments have signed up to the Education for All (EFA) programme of action. The Second Decade of Education for Africa (2006-2015) has built on gaps identified in the first education plans, moving beyond primary school enrolment (UNECA/OECD, 2011). The World Bank, United Nations organizations, AfDB and major bilateral organizations have made major contributions to the response. For instance, the World Bank contributed to the establishment of institutions such as the African Capacity Building Foundation (ACBF), launched the Partnership for Capacity- Building in Africa (PACT) and has used its loan facilities to help countries to build their capacity. Between 1995 and 2004, the Bank provided some US$ 9 billion in loans and about US$ 900 million in grants and administrative budget to support public sector capacity-building in Africa. Other agencies, including AfDB, UNDP and UNECA, have also been among the major development partners advocating, promoting and funding capacity-building initiatives. Several other bilateral agencies and donors have also contributed immensely to the building of the region's capacity. However, ineffective coordination of interventions is leading to inefficiencies arising from duplication of efforts and weak development effectiveness results.

The ACBF, based in Harare, Zimbabwe, is an independent, capacity-building institution established on 9 February 1991 through the collaborative efforts of three multilateral institutions (AfDB, the World Bank and UNDP), African governments and bilateral donors. The Foundation has added value to capacity-building, development management, good governance and poverty reduction, through the channelling of resources into building economic policy analysis and development management capacity in sub-Saharan Africa. By 2009, ACBF had committed more than US$ 290 million to capacity-building in some 40 African countries, and strengthened RECs to take forward commitments to regional integration. ACBF is a significant partner institution to NEPAD, with which it signed a memorandum of understanding in January 2004, and of AUC, to which it is providing capacity-building support.

The African Economic Research Consortium (AERC), established in 1988 and based in Nairobi, Kenya, undertakes advanced policy research and training in economics and economic management in the region. It promotes grant-funded research among economics experts in Africa. It has also established training for MA and PhD degrees in Economics and Agricultural Economics in selected universities in the subregions of Africa.

The International Monetary Fund (IMF) launched a new initiative in 2002 to support capacity-building in Africa. The Initiative's strategic goal is to strengthen the capacity of African countries to design and implement their poverty reduction strategies, as well as to improve the coordination of capacity-building technical assistance (TA) in the poverty reduction strategy paper (PRSP) process. The initiative aims to increase the volume of Fund TA to Africa in its core areas of expertise, with a focus on capacity-building, as well as to raise the effectiveness of TA through a more rapid and better informed response, closer monitoring, and enhanced government accountability for TA outcomes. As part of the initiative, three African Regional Technical Assistance Centres (AFRITACs) have been established. The East AFRITAC, opened in Dar es Salaam, The United Republic of Tanzania, in 2002 and now serves seven countries in East Africa (Eritrea, Ethiopia, Kenya, Malawi, Rwanda, The United Republic of Tanzania, and Uganda). The West AFRITAC opened in Bamako, Mali, in 2003 to serve ten countries in West Africa (Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Guinea, Mali, Mauritania, the Niger, Senegal, and Togo). Most recently, in 2007, the Central AFRITAC was set up in Libreville, Gabon. The AFRITACs are financed by contributions from 24 donor partners, the IMF, and through in-kind contributions by host country governments.

The Centres' activities take place in close cooperation with AfDB and donor partners. This facilitates the design, implementation, and monitoring of on-going TA programmes in member countries. Some training activities are carried out jointly with the ACBF, of which the IMF is a member. The Fund participates in the activities of PACT, and is a member of its implementing agency, ACBF. The Fund's proposed contribution to ACBF's next five-year pledging period is US$ 4 million. This would be earmarked to finance ACBF training activities, to be designed and implemented jointly by the ACBF and by the AFRITACs.

In 2010 AU-NEPAD developed a Capacity Development Strategic Framework (CDSF), which will guide aspects of capacity-building activities in the region. The objectives of the CDSF include: developing processes and systems for empowering country leadership teams with the knowledge, information and values that foster accountability at all levels, especially to the citizens; creating space for stakeholder participation, and influencing critical engagement by improving communication on the use of subregional and regional spaces; developing and continuously reviewing sets of criteria that enable citizens and different stakeholders to challenge leadership on accountability and build their critical consciousness; supporting initiatives that foster a culture of commitment and adherence to due process and policies by governments, business and civil society actors; and building networks and constituencies of expertise beyond Africa through a programme for engaging Africans in the diaspora. The key cornerstones of the CDSF include leadership transformation; citizen empowerment; the knowledge economy; mobilization and participation of Africans; mobilization and utilization of African skills; enhancing access to and maximization of African resources; coordination and harmonization of capacity-builders; communication; and gender mainstreaming. Putting the CDSF into operation will involve processes and institutions at the country, subregional and regional levels. Targeted work is being undertaken in Ghana, Kenya, Rwanda and Uganda, with the aim of mainstreaming CDSF in national strategies.

A recent survey of 34 African countries showed that 70 per cent had mainstreamed capacity-building in their national development plan vision or strategy, and 54 per cent had specific national programmes for capacity development (ACBF, 2011). African countries have made strategic choices and improved the policy environment for capacity development through the establishment of national development strategies, effective dialogue mechanisms, and growing partnerships. Primary education remains a high national priority, but increasing emphasis is placed on secondary education and vocational training.

Capacity development is now a cross-cutting element in all aid delivery modalities. The European Union (EU), for instance, integrates elements of institutional and capacity-building in all its budget support programmes. More than half of all technical cooperation is coordinated and aligned with the capacity development programmes of countries (OECD, 2008). Specific and targeted capacity development support and technical assistance is also provided by several bilateral and multilateral donor agencies.

Skills and knowledge development is critical to the promotion of sustainable development, in particular in light of the need to foster the transition to a green economy for sustainable poverty eradication. Yet progress on secondary and tertiary school enrolment has been slow. Only 34 per cent of the school age cohort in sub-Saharan Africa was enrolled in 2007 (as compared with 24 per cent in 1999). Enrolment in tertiary education increased slightly in sub-Saharan Africa, from five to six per cent, between 2006 and 2008 but is still insufficient to meet demand given the low baseline, and the gap with other regions has widened (UNECA/OECD, 2011). Moreover, the expatriation of qualified people remains a significant problem.

Many developing countries still face significant challenges in adjusting to trade liberalization and capturing the benefits from new market access opportunities. The Aid for Trade (AfT) agenda took shape in response to the need for capacity development for trade. Africa was the main recipient of AfT in 2009 as commitments rose to US$ 17 billion (UNECA/OECD, 2011). Sub-Saharan Africa had a disproportionate share of increased Aid for Trade commitments in 2007, but the increases in 2008 were mainly to countries north of the Sahara, with economic infrastructure the main target. The focus has been on infrastructure and productive capacity, including support for the North-South Corridor project. AfT flows were less volatile than total ODA during the period 2006-2009 both in terms of commitments and disbursements to Africa (UNECA, 2011).

3. Constraints and challenges

Despite significant progress in school enrolment rates, completion rates remain low, with an average of less than 70 per cent. Inequities such as the rural-urban divide, gender differences and income distinctions remain serious impediments to higher enrolment and completion rates. Girls in the poorest 20 per cent of households are 3.5 times more likely to be out of school than girls in the highest income groups and four times more likely than boys in the higher income groups (UNECA/OECD, 2011). The quality of education remains a challenge. The number of qualified teachers remains well below the requirement, with an estimated shortfall of three million teachers. In 2007, 22 African countries had pupil-teacher ratios at primary level above the international norm of 1:40 (UNECA/OECD, 2011).

Despite the fact that many African countries have developed strategic policy documents to guide capacity development, the rate of progress is inadequate to meet education and capacity-building commitments. Technical assistance for education and capacity-building remain fragmented; it is often not aligned with government strategies or does not correspond to government priorities. Ensuring the retention of trained staff is still a critical problem for many African countries. The health sector is an example of the problem: it is constantly hampered by the outflow of trained staff.

Developing and least developed countries that have recently acceded to the WTO have taken on obligations far in excess of those that apply to existing members, and at times exceeding those of developed country members. The current procedure for accession to the WTO is inequitable, as it allows for inappropriate political leverage, and may work against the basic objectives of the WTO system in general (Cosby, 2009). Furthermore, accessing AfT remains difficult. For instance, a survey by the OECD indicates that over 60 per cent of partner countries have specific challenges accessing aid for trade from DAC donors and multilateral agencies, with the most frequent obstacle being conditionalities attached to AfT (OECD, 2011).

4, Lessons learned and way forward

Increasing attention has been paid over the last decades to education as an enabling tool for the achievement of sustainable development. The importance of capacity development, including institutional strengthening, has also moved to the centre of Africa's sustainable development agenda, with a view to ensuring that African governments are able to take charge of their own development strategy. While progress has been made, inadequate capacity, both at the institutional and individual levels, remains one of the critical missing elements for Africa's development. While there is a clear understanding around education for development, capacity development is still an ill-defined area of development practice, with limited knowledge and understanding of progress so far. Capacity-building is a long-term process that requires a systemic approach. It is critical that African governments, together with their partners, undertake an exercise to develop capacity profiles and needs assessments at all levels, with clear and measurable progress indicators to monitor interventions that address the region's specific development challenges.

Capacity development and retention are necessary elements of development effectiveness. In this regard, it is critical that African governments prepare national capacity development strategies that do not only address the issues of education, capacity development and institutional strengthening, but also take a broader perspective, embodying all aspects of capacity development, including human resources development, organizational development and institutional development. Sustainable development should therefore be at the heart of any capacity development strategy.

Strategies to ensure that technical assistance passes on the required skills to local experts are urgently needed, together with an effort to ensure a decent working environment for professional staff in an attempt to reduce the "brain-drain" that plagues many African countries. Indeed training is only part of the solution, as low salaries and poor working conditions also contribute to the high skills flight. What is needed is a comprehensive approach to capacity development and human resource management. This is even more important given the increasing attention focused on the crucial role of institutions in development.

Development partners, including non-traditional donors, should ensure that human and institutional capacity development is accorded the necessary priority, both as a cross-cutting issue in all development cooperation, and also through targeted interventions aligned with nationally- identified needs and priorities. In this regard, the strengthening of existing networks and centres of excellence in Africa as hubs for Africa's education and capacity development is crucial to enabling them effectively to address new and emerging issues and challenges. A key priority should be strengthening networking among institutions in Africa, and between African and non-African capacity development institutions.

E. Trade and market access

International trade, particularly market access for exportables, is an important ingredient for economic growth and development. The link between trade and development is highlighted in A21, and further reiterated in the JPOI and the Doha Ministerial Declaration.

1. Commitments

Developed and developing countries have committed to ensuring that the international trade regime is equitable, and that it benefits developing countries, in particular the least developed. This entails promoting market liberalization and market access for developing countries, and the promotion of social and environmental standards that, while not becoming barriers to trade, would foster sustainable development. The international community has further committed to fully implementing the provisions of the Agreement on Trade-Related Aspects of Property Rights (TRIPS) relating to the protection of public health; strengthening the link between trade and environment and the promotion of mutual support between the WTO and MEAs; and helping developing countries to reduce their economic vulnerability by supporting economic diversification. Furthermore, in response to the global financial and economic crises, developed countries have pledged to keep markets open, and refrain from raising trade barriers and imposing export restrictions.

Specific commitments have also been made for Africa, in particular to transform the region into a net exporter of agricultural products, to promote flows of foreign direct investment, and to improve market access, especially for the rural poor. Furthermore, the region has committed to increasing intraregional trade by, among other things, promoting cross-border interaction among African firms, and establishing joint infrastructure.

2. Actions taken and progress made

At the international level, the Doha talks have included discussions on implementation, capacity-building, environment, Aid for Trade and special and differential treatment. In 2010, there was some progress on specific issues, e.g. the "banana deal", the cotton trade and the negotiations on non-tariff barriers, and notable engagement of the African Group. However, domestic support and export subsidies (including for cotton) remain high in major OECD economies.

A joint WTO, OECD and UNCTAD monitoring report indicates that G20 governments have largely resisted pressures to erect new trade restrictions as a measure to protect domestic industries in response to the economic and financial crises. However, existing restrictive measures persist. In 2010, there was a marked increase in the number of new initiatives introduced to facilitate trade, especially by reducing or temporarily lifting import tariffs and by streamlining customs procedures (UNECA/OECD, 2011). Progress in removing domestic subsidies has been mixed. Furthermore, developing country agricultural exporters face protection in Northern markets seven times as high as exporters of manufactured goods. The agricultural market remains the most distorted.

Cooperation agreements and regional trade are critical for sustainable development in Africa. At the regional level, tariffs have, on average, fallen. Progress is being made on establishing regional free trade areas (FTAs) and customs unions, as reflected in the effort to integrate the COMESA, EAC and SADC countries into an FTA. Joint infrastructure projects, such as the North-South Corridor, have been initiated as part of this. During the global crisis, intraregional trade proved more resilient than international trade, showing a lower dependency on international commodity markets. Despite this positive sign, the level of trade integration within Africa is still much lower than in other regions. Several countries in the region and RECs are involved in bilateral trade negotiations in order to diversify their export markets and enhance their integration into the global economic and trading systems.

3. Constraints and challenges

The region's marginalization in the global market persists. The use of preferential market access schemes remains fragmented as a result of complex rules of origin. Moreover, the tariffs imposed on developing countries' imports far exceed those on imports from developed countries. The region's governments are concerned that environmental and health and safety standards may be non-tariff barriers to trade in disguise: indeed, environment and health-related requirements are becoming increasingly stringent and complex. There is therefore a need for dedicated capacity-building as part of AfT efforts, with a focus on meeting standards in export markets (Cosbey, 2009).

Economic diversification remains a challenge. African exports remain poorly diversified in terms of both structure and destination. Eighty per cent of Africa's exports are oil, minerals and agricultural commodities. Europe and North America continue to absorb most African exports, though trade with emerging economies is growing encouragingly. Africa's heavy dependence on natural resource exports is a persistent problem linked to their exhaustibility and over-exploitation, the negative externalities associated with their extraction and consumption, as well as price volatility. Effective management of the production and export of natural resources often requires a leading role for the state (UNECA, 2011), with a view to capturing resource rents, minimizing the negative impacts of resource extraction and consumption, and ensuring resource-based revenues are invested in the development of the country. Furthermore, natural resource abundance is often associated with distorted incentives to diversify, and rising commodity prices have not led to the desired changes in material/energy efficiency and changes towards sustainable production and consumption patterns.

The existing preferential trade arrangements perpetuate the current structure of African exports, while the new Economic Partnership Agreements (EPAs) that are being negotiated may force countries to liberalize too rapidly, with a bias towards Europe and against regional integration. EPAs as currently crafted may even stall the COMESA-EAC-SADC tripartite efforts to establish a single FTA. While there has been some progress on specific issues related to property rights and development, the TRIPS agreement often forces developing countries to shut down imitators that benefited the local population by producing cheap copies of patented goods. In the case of pharmaceuticals, developing countries lose their supply of cheap generics, and lose the industries that might eventually have grown to do their own product development, while developed country firms gain markets and royalties.

4. Lessons learned and way forward

The world economy is recovering slowly from the effects of the global financial and economic crises of 2008–2009, and African economies have recovered better than expected, with an aggregate GDP growth forecast to rise to five per cent in 2011, up from 4.7 per cent in 2010. Nonetheless, the region remains marginalized in the global market. The use of preferential market access schemes is limited, and barriers to exports from the region continue to be high. The continued dependence on a few commodities, often natural resources, is a persistent problem that exposes the region to external shocks. It is critical for countries to diversify their economies to reduce reliance on a limited number of commodities traded in the international market.

African countries need to be involved at the initial stage in setting the standards for products traded internationally. A proactive approach is also needed to ensure that they can fully benefit from the opportunities offered by standards and labelling schemes, such as the rapidly expanding markets for organic products, with catalytic effects on resources efficiency and occupation safety. The global economic and financial crises brought important lessons for the region. Diversified economies can help reduce the level of the region's vulnerability to external shocks. While trade is clearly an important means for the implementation of sustainable development commitments, the region also has to be careful not to rely solely on international trade for economic growth and the vagaries of international markets. In this regard, regional integration must continue to be strengthened as a critical means towards sustainable development, since regional trade is more resilient than international trade and can further promote food security in Africa.

In order to benefit to the full from global trade, the region's special circumstances and interests must be well represented in international forums. This will require a significant improvement in its presence in international institutions such as WB, IMF and WTO. The region's specific needs should be taken into account in the current debate on reform of the international financial architecture and governance. With respect to trade, the region needs to engage more forcefully in WTO negotiations in order to ensure that its development requirements are adequately reflected in the outcome of the negotiations. Africa's interests must also be reflected in other negotiation forums, such as the UNFCCC and CBD, where opportunities in carbon trading and biodiversity-based resources could help generate additional financial resource streams, create jobs, and support sustainable development in the region. In this context, it is important for the Clean Development Mechanism (CDM) to be reformed to include a sectoral or programmatic approach that would allow Africa to participate more fully in the market.

The challenge of climate change offers further trade-related opportunities. For example, Africa's vast forest resources could provide significant carbon sequestration services, commanding a price in the international market for carbon offsets. Potential investments in forestry initiatives linked to REDD+ are estimated at US$ 4 to US$ 7 billion per year for 2015, rising to US$ 14 to US$ 20 billion per year by 2030. The inclusion of agriculture in the carbon market would also generate significant opportunities for Africa, fostering the development of sustainable agricultural practices, while helping to mitigate climate change (UNECA, 2010). African governments should continue to engage in the climate change negotiations in order to ensure an outcome that recognizes the many opportunities for mitigation offered by the region, while at the same time fostering development through transfer of financial resources and technologies. Furthermore, African negotiators need to ensure that climate change policies do not lead to further restrictions on trade.

F. *Regional integration*

1. Commitments

Regional integration is a means of achieving sustainable development. Awareness of this is has been a driving force behind the numerous regional cooperation initiatives. Commitment to regional cooperation and integration is exemplified by the creation in 1963 of the Organization of African Unity (OAU), not long after many African countries had attained political independence. In 1980 African countries adopted the Lagos Plan of Action (LPA), which had the objective of achieving effective regional integration through national and collective self-reliance. The Abuja Treaty, signed in 1991, provides for the creation of a continent-wide African Economic Community (AEC) by 2027. The Treaty committed the region to a path of economic integration. The adoption of NEPAD in 2001 is a strong acknowledgement of the need for African countries to pool resources and enhance regional integration and development in order to improve international competitiveness. In November 2010, the 6th Ordinary Session of the Conference of African Ministers of Trade adopted a recommendation to fast-track the establishment of a Continental Free Trade Area.

In 2002, WSSD urged the international community to support African countries to improve regional trade and economic integration and increase investment in regional market infrastructure. As part of the commitment made, development partners also pledged to support the regional cooperation and integration process. The EU Strategy for Africa emphasized support for regional integration and the development strategies and programmes of different RECs at the regional level, including the creation of regional integrated markets. Commitments were made at the Heiligendamm Summit Declaration on Growth and Responsibility in Africa to support regional integration and a Capacity Development Initiative for Regional Economic Communities.[29]

2. Actions taken and progress made

African countries have taken a wide range of concrete actions aimed at deepening regional cooperation and integration.

Regional level: The transformation of OAU into AU set in motion actions to deepen progress towards regional integration. The main goal of the AU is to improve the quality of life of the citizens of the region through integration, cooperation and development (AUC, 2009). This was followed by various actions in support of the integration agenda. For example, the 9th AU Ordinary Session held in 2007, which adopted a declaration to accelerate economic and political integration of the African continent, including the formation of a Union Government for Africa with the ultimate objective of creating the United States of Africa. The declaration also called for the rationalization, strengthening and harmonization of the activities of the RECs in order to lead to the creation of an African Common Market.

Regional institutions have been set up and strengthened. Among these are AUC and the NEPAD Planning and Coordinating Agency. The Pan-African Parliament has also been established and is facilitating the building of a broader consensus on the regional integration agenda. The establishment of other key regional institutions, which include the African Investment Bank, the African Monetary Fund and the African Central Bank, is being accelerated.

The Minimum Integration Programme (MIP) has been developed to streamline and fast-track the integration process. The MIP will, among other things, strengthen convergence of RECs. RECs are already being rationalized. This has led to the recognition by AU of only eight RECs. These are: Arab Maghreb Union (UMA), Common Market for Eastern and Southern Africa (COMESA), Community of Sahel-Saharan States (CEN-SAD), Economic Community of Central African States (ECCAS), Economic Community of West African States (ECOWAS), East African Community (EAC), Inter-Governmental Authority on Development (IGAD), and Southern African Development Community (SADC). Other priorities of the MIP include infrastructure and energy; free movement of people, goods, services and capital; peace and security; and agriculture, trade and industry. The AU-NEPAD PIDA is an integral element in enhancing the physical integration of the region.

In order to promote shared and collective responsibility, the African Charter on Democracy, Governance and Elections was adopted by AU Heads of State and Government in 2007. This charter serves as a firm basis for collective and united action when required. In addition, in 2009, African Heads of State and Government adopted the African Charter on Statistics. This Charter is serving as a policy framework and advocacy tool for statistical development in Africa.

Collectively, the region has entered into a number of external partnerships based on a regional approach to external cooperation. These partnerships include the multilateral partnerships in the framework of the WTO and the African, Caribbean and Pacific Group of States (ACP)–EU economic partnership agreements.

29 http://www.commit4africa.org/category/sector/development-partnerships

According to AUC (2011), the various RECs, which are the building blocks of Africa's regional integration, have made varying progress in fostering regional integration, as outlined below.

Economic Community of West African Countries (ECOWAS) has achieved the status of a Free Trade Area implemented through the ECOWAS Trade Liberalization Scheme. Progress has also been made in the establishment of a Common External Tariff and harmonization of Valued Added Tax within the subregion. ECOWAS is also in the process of creating a second monetary zone for the countries that are not members of the Franc Zone. The REC has also made progress in setting up and running subregional specialized institutions, including the Bank for Investment and Development, the West African Monetary Institute, the West African Health Organization, the West African Monetary Agency, and the Water Resources Coordination Unit. The sectors where integration, coordination and scaling-up programmes are under way include transport, telecommunications, energy, science and technology, and HIV/AIDS prevention.

Common Market for Eastern and Southern Africa (COMESA) has also achieved a Free Trade Area covering 14 States. Moreover, COMESA has established a Customs Union and in this regard developed a number of market-oriented programmes. A draft policy framework on liberalization of services has been prepared and is awaiting finalization to facilitate trade in services such as air transport, motor vehicle insurance, insurance, shipping and roads. COMESA has adopted Protocols on facilitation of free movement of persons. In the area of institutions, the Preferential Trade Area (PTA) continues to be very active in promoting investments and providing trade financing facilities. Other institutions established include the COMESA Clearing House, the Re-Insurance Company, and the African Trade Insurance Agency. COMESA has also made significant progress at sector level, including infrastructure and agriculture and food security. In the agricultural sector, COMESA is implementing several programmes with a view to increasing the agricultural productivity of the subregion. COMESA is also establishing cooperation arrangements with other RECs. For instance, a Memorandum of Understanding has been signed with EAC, IGAD and the Indian Ocean Commission (IOC). These organizations have agreed to adopt and implement the COMESA trade liberalization and facilitation programme. In addition, COMESA and SADC have set up a Joint Task Force to harmonize their programmes.

Economic Community of Central African States (ECCAS). ECAAS has also achieved a free trade area. Although it has made little progress in facilitating the free movement of persons or the free movement of goods, services and capital, the member States have adopted a plan for gradually scrapping tariffs on intracommunity trade. The REC has, however, made significant progress in promoting peace and security in the subregion. At the sector level, ECCAS has made progress in energy, where a specialized subregional institution, the Energy Pool of Central Africa, has been established to promote cooperation between member States. Other sectors where progress has been registered include telecommunications and information, communication technologies, and agriculture.

Southern African Development Community (SADC) achieved Free Trade Area status in January 2008. Studies are under way to establish a Customs Union. Free movement of persons has been facilitated through a waiver on visa requirement for a period of stay not exceeding 90 days. Some progress has also been made on accelerating free movement of goods, services and capital. At the sector level, SADC has made significant progress, especially in infrastructure and services. In the energy subsector, the Southern African Power Pool was established in 1995 to expand electricity trade, reduce energy costs and provide greater supply stability for the region's national utilities. Progress is also being made in the telecommunications, groundwater, drought management, tourism, food, agriculture and natural resources sectors.

East African Community (EAC): In addition to achieving the status of a Free Trade Area, EAC has established a Customs Union which came into effect on 1 January 2010. A zero tariff is applied to goods from the partner states, with a few exceptions based on an agreed "list of sensitive goods". The REC is working towards establishing a Monetary Union by 2012. EAC has also made progress on transport and communications, including the East African Road Network Project. In the energy sector a Power Master Plan has been developed. This Plan envisages a timeframe of up to seven years for a fully- fledged Regional Power System with the creation of a Power Pool as a central feature.

Inter-Governmental Authority on Development (IGAD). Actions to promote the free movement of persons and free movement of goods, services and capital are in the start-up stages. However IGAD has already been successful in implementing its mandate by establishing effective and efficient mechanisms, networks, processes, specialized institutions and partnerships for the execution of its subregional activities. Institutions established include the Conflict Early Warning and Response Mechanism based in Addis Ababa; the IGAD Business Forum now in Kampala; and the IGAD Climate Prediction and Application Centre for Monitoring and Forecasting based in Nairobi. IGAD has also established the IGAD Capacity- Building Programme against Terrorism, which is based in Addis Ababa. In the trade sector, IGAD is working with COMESA to promote common and mutual programmes on trade to avoid duplication of effort and resources. IGAD is also a member of the Inter-Regional Coordination Committee (IRCC) that deals with coordination mechanisms with other regional economic groupings, including COMESA, EAC, IOC and SADC.

Community of Sahel-Saharan States (CEN-SAD): CEN-SAD is working towards the establishment of a Free Trade Area. As part of its trade, integration and social development programme, it has launched the process of trade liberalization and the free movement of people. It is in the process of elaborating a Protocol on Free Movement of Persons, which will build on the various articles on free movement of persons contained in the statute establishing CEN-SAD. It is worth noting that already the measure on selective visa exemptions has been formalized through a decision signed by seventeen member States in May 2009. Furthermore, the REC has established the Sahel Saharan Bank for Investment and Trade. In the area of peace and security, CEN-SAD has adopted a Protocol on the Mechanism of Prevention and Management of Conflict, a Convention on Cooperation on Matters of Security, and a Charter on Security.

3. Constraints and challenges

In spite of the progress made, there remain a number challenges and constraints to accelerating regional integration in Africa. The main challenges include the following:

a. *Multiplicity of RECs and overlapping memberships:* The multiplicity of regional integration arrangements has made Africa's regional integration process unnecessarily complex and duplicative, thus leading to inefficient use of resources. This is compounded by the ambitiousness of REC programmes as compared with their limited planning, implementation and financing capacities;
b. *Fear of losing sovereignty:* REC member countries have not shown the desired level of commitment in the implementation of integration arrangements. This arises from a fear of losing sovereignty, which is perceived to far outweigh the costs of not implementing integration policies. Most REC Secretariats have no legal power to ensure that member countries fulfil their obligations, rendering the road to the African Economic Community somewhat uncertain;
c. *The conflicts in some mMember States:* Conflicts are a hindrance to integration and development as they hamper economic activity, displace farmers from productive land and destroy infrastructure. They also pose a serious challenge to the flow of trade and investment and displace goods and services from the formal to the informal sector;
d. *Lack of a self-financing mechanism:* A major challenge facing regional integration is lack of domestic resources that would provide a predictable source of finance for projects and programmes. A great many initiatives rely on funding support from development partners. This partly explains why the AU-NEPAD HSGOC at its Summit in January 2012 directed NEPAD Agency to

explore domestic resource options in collaboration with regional partner institutions for the financing of NEPAD programmes;

e. *Lack of a compensation mechanism:* The lack of a compensation mechanism for countries that lose out on revenues in an integration process also acts as a constraint to full implementation of integration schemes. Tariffs and other trade taxes account for a large share of the revenues of many African countries. The potential loss of this amount of revenue, if all the protocols of the integration process are implemented, could inhibit the integration process, even if the potential benefits of integration outweigh the cost (UNECA, 2008);

f. *Weak institutional capacity for implementation of the integration agenda at national level:* Capacity to implement agreed integration objectives at the national level is weak. This is manifested in the inability of national mechanisms to coordinate, implement and follow up commonly defined goals and objectives. The result is poor or inadequate implementation of agreed upon integration protocols, strategies and programmes;

g. *Weak intra-REC trade:* In spite of the growth trends in intra-REC trade, intra-subregional trade remains insufficient as a result of factors including trade barriers, poor diversification of exportables, infrastructural constraints, and currency exchange challenges. The pattern of REC exports continues to be strongly influenced by historical links with international trading partners; and

h. *Inadequate physical integration:* While African countries have made significant strides in setting up institutional arrangements for regional integration, physical integration is lagging behind. Therefore the achievement of the desired regional integration development outcomes, such as increased trade and mobility of goods and labour, is hampered. The challenge is thus to mobilize financial resources to scale up and maintain critical infrastructure such as road and railway networks.

4. Lessons learned and way forward

Although it remains uneven across RECs, member States and sectors, progress is being made towards strengthening regional cooperation and integration in Africa. The establishment of strong regional institutions such as AU and the NEPAD Planning and Coordinating Agency, the ongoing rationalization of RECs, removal of trade barriers and expansion of programmes for physical connectivity and energy pooling are major initiatives and significant steps towards enhancing regional integration in Africa.

The role of regional integration in promoting economic diversification, expanding markets, pooling and more efficient allocation of resources, and addressing the transboundary and globalization issues and challenges confronting Africa, makes it a crucial vehicle in the realization of Africa's sustainable development aspirations. Deepening and accelerating Africa's regional integration should therefore remain a top priority of African countries and the region's development partners. Sustained political will and enhanced efforts towards region-wide development cooperation are critical in addressing the myriad major challenges confronting the region's integration drive. Further delay in tackling the major challenges, such as rationalization of RECs, poor physical connectivity and insufficient mainstreaming of the regional integration agenda at the national level, will not only slow down the integration process but also the translation of regional integration into concrete development outcomes. In order to address the multiple challenges and pave the way for the region to achieve the AEC goal by 2027, there is a need for more collective efforts, continued strong and dynamic African political leadership and commitment to integration. This should be complemented by increased and steadfast development support that is responsive to Africa's regional integration priorities.

In order to accelerate regional integration, the development impact of regional integration needs to be increased and should show in the improved well-being of the peoples of the region. This should therefore be factored into the assessment and design of initiatives to further the regional integration process. The role of civil society and the business community in the regional integration agenda needs to be enhanced in order promote a people-based integration. Deepening regional integration in Africa requires a thorough assessment of integration performance at the national, subregional and regional levels, taking into account new regional and global realities. A key objective must be to expand investment opportunities that increase African incomes and tap unexploited resources, enhancing physical connectivity, reducing dependence on the outside world and creating the conditions for self-sustained, autonomous development.

Understanding the role of cooperation and integration in meeting the challenges of African development requires going beyond traditional issues. In this connection, objectives such as peace and security, environmental and health issues, and Africa's global commitments should be adequately addressed in the regional integration agenda. In some parts of the region conflicts and instability have stalled regional integration. These, among other issues, need to be included in initiatives to further regional integration in Africa.

African countries should encourage more region-wide approaches to economic cooperation, especially with other countries outside the region. In this regard, it is important to strengthen the capacity of African countries, AUC and RECs to negotiate at different levels. Support for enhancing physical connectivity should be accelerated through the development of infrastructure such as efficient transport systems, which are vital in expanding intraregional trade.

Regional integration should be mainstreamed at national level. In this connection there is a need to strengthen political will and help African countries to undertake and enforce national reforms, including setting up the necessary institutional frameworks in support of the regional integration agenda.

G. *South-South cooperation*

1. Commitments

As a means of implementing sustainable development commitments, South-South cooperation (SSC) has an important role in promoting trade, access to finance and investment, as well as exchange of knowledge, skills and technical expertise. SSC is a commitment to solidarity among the peoples and countries of the South that contributes to their national well-being, national and collective self-reliance and the attainment of internationally- agreed development goals, including the MDGs. SSC is a result of the changing global economy in which the weight of emerging markets is growing, and evidence of the need for home-grown economic development solutions. Recognizing the importance of SSC, the JPOI reaffirmed commitment to its promotion. The 2003 Marrakesh Declaration on SSC called for, among other things: support for the implementation of NEPAD programmes through SSC; work towards ensuring the necessary interface between the modalities for North-South and SSC, including in the attainment of internationally- agreed goals; enhancement of South-South trade and further market access for developing countries; strengthening Regional Economic Groupings, as well as interregional arrangements in order to promote South-South commercial cooperation; and the promotion of initiatives in favour of LDCs in the context of SSC.

2. Action taken and progress made

Arrangements to promote SSC: In order to foster SSC, the region has entered into a number of arrangements to strengthen and coordinate SSC efforts between Africa and other countries of the south, such as China, Republic of South Korea, India and Brazil. The Forum on China-Africa Cooperation (FOCAC) was launched in 2000. In 2009, China announced measures to establish a China-Africa partnership to address climate change; enhance cooperation with Africa in science and technology; help Africa build up financing capacity; further open up the Chinese market to African products; deepen cooperation in medical and health care; enhance cooperation in human resources development and education; and expand people-to-people and cultural exchanges.

The Republic of Korea has established the Initiative for Africa's Development (KIAD), which is supported by the Republic of Korea–Africa Forum. During the 2009 Forum, the Republic of Korea pledged to double ODA to Africa by 2012 compared to 2008. Korea has also established the Republic of Korea-Africa Economic Cooperation Conference to boost trade and economic cooperation with Africa, and the Republic of Korea-Africa Industry Cooperation Forum. During the second meeting of the Forum, the Republic of Korea announced the establishment of the Republic of Korea-Africa Green Growth Initiative for the period 2009-2012.

The India-Africa Forum is held every three years. The 2008 summit agreed on enhanced cooperation between India and Africa in economics, politics, science, research and technology, social development and capacity- building, tourism, infrastructure, energy and environment, as well as media and communications.

Other cooperation arrangements include the India-Brazil-South Africa (IBSA) partnership, and the Turkey-Africa Cooperation Summit. There are also interregional initiatives, such as the Africa and South America (ASA) Partnership and the New Asian-African Strategic Partnership (NAASP).

SSC has increased within Africa. For example, with the rapid move of South African firms into the rest of Africa, investment by South Africa in the rest of Africa has increased since the beginning of democracy in South Africa in 1994.

Increase in ODA, trade and FDI: Overall, growing SSC has resulted in a significant increase in the importance of developing countries in Africa's merchandise trade. Official flows from developing countries to Africa have also increased. UNCTAD (2010), estimates that aid to Africa from developing countries was about US$ 2.8 billion in 2006. Flows for 2007 and 2008 were expected to be higher as several developing countries had made financial commitments to the region. Africa's southern partners are also increasingly important sources of FDI to Africa. Estimates by UNCTAD (2010) are that total FDI flows to Africa increased from an average of 17.7 per cent for the period 1995–1999 to 20.8 per cent for the period 2000–2008.

According to UNCTAD (2010), the Republic of Korea's ODA to Africa increased from US$ 39 million in 2005 to US$ 104 million in 2008, while Africa's share of the Republic of Korea's ODA to developing countries rose from eight per cent to 19 per cent over the same period. There has also been an increase in trade between the Republic of Korea and Africa. Total merchandise trade increased from US$ 4.4 billion in 2000 to US$ 11 billion in 2008.

3. Constraints and challenges

While significant progress has been made with regard to strengthening SSC and its benefits are laudable, it is beset with challenges that need to be addressed. These challenges include the following:

Multiple and fragmented cooperation arrangements: The multiplicity of cooperation arrangements is becoming costly and a strain on Africa's limited resources. The fragmentation of SSC initiatives makes it very difficult for participating African countries to develop and implement more integrated programmes to attain intertwined national development objectives.

Inadequacy of Africa's SSC strategy: Africa is not always in control when SSC arrangements and initiatives are devised. According to UNCTAD (2010), this is because Africa has not articulated a coherent regional approach to harnessing and managing these partnerships for its benefit. As a result, the initiatives under way, mostly at national level, are mainly with a few natural countries rich in natural resources, and these initiatives are not always well aligned with Africa's regional priorities. One such priority is the need to channel SSC foreign direct investments to boosting productive capacity and fostering regional integration.

Poor environmental profile of some SSC initiatives: Many SSC initiatives are in environmentally sensitive sectors such as natural resources exploitation and infrastructure development. This demands better integration of environmental considerations into the development and implementation of the cooperation initiative. Insufficient attention to environmental considerations at initiation, as well as during implementation, is recorded in many cases, however.

4. Lessons learned and way forward

SSC has become an important vehicle for Africa to expand its trade opportunities. Moreover, SSC is a growing source of FDI and ODA. However, in order to harness and benefit fully from SCC initiatives, Africa must be proactive by developing an effective strategy to guide its engagement in SSC partnerships. Such a strategy should be responsive to the priorities of the region and therefore be aligned with the region's vision and programmes, such as those contained in NEPAD, the region's framework for sustainable development. Africa and its southern partners should adopt and promote coordinated, integrated, inclusive and transparent cooperation arrangements and initiatives. Such arrangements and initiatives should be based on genuine partnerships that respond to Africa's priorities at the regional, subregional and national levels. Partnerships should also address the region's long-term concerns. The effectiveness of such partnerships can therefore be strengthened by agreeing on medium to long-term SSC targets and adopting transparent mutual accountability mechanisms.

African countries and their partners in the South need to be mindful of debt sustainability by recipient countries. There are concerns that the use of concessional loans rather than grants will lead to debt accumulation. African countries need to recognize that they will eventually have to pay back these loans and therefore avoid accumulating unsustainable debt. The capacity to pay should be bolstered by channelling the borrowing from southern partners into supporting productive sectors and investments that will enhance repayment capacity. The environmental profile of SSC initiatives should be strengthened. In this regard, strengthening the capacity of host countries in environmental assessment, monitoring and enforcement of environmental management plans should be integrated into SSC initiatives.

SSC partnerships should pay great attention to strengthening the capacity of recipient countries, as well as the sustainability of initiatives and results from SSC. In this context, the region's traditional development partners can, through triangular programmes, play an important role in supporting Africa's cooperation with other southern countries. Despite the growing importance of SSC initiatives in expanding trade and increasing FDI and ODA flows to Africa, strategies need to be devised to ensure that, they cover many more countries in the region. This is because currently these initiatives seem to be concentrated particularly in countries rich in natural resources. While SSC has grown as an important vehicle for assisting countries in the region to implement their sustainable development commitments, it is not a substitute for North-South cooperation. It is important for the region's traditional donors to scale up efforts to support Africa-South cooperation.

It is clear from the above that the means of implementing sustainable development commitments are crucial. In spite of the efforts made so far, much remains to be done to bridge the gap between what has been done and what is needed in terms of means of implementation, from domestic resources to technology transfer. Achieving sustainable development in the region therefore remains a daunting challenge and one that can only be tackled through increased, more targeted domestic efforts and stronger partnerships. Despite the need to scale up domestic effort substantially, as AU-NEPAD HSGOC declared at its meeting in January 2012, it is equally clear that the region cannot meet the sustainable development challenge on its own, especially in the face of new and emerging issues such as climate change, and the increasingly unstable global financial and economic environment. The international community should therefore meet its commitments in terms of transfer of financial and technological resources, while ensuring that they complement and strengthen domestic effort and are conducive to skills and institutional capacity development. In this regard, development effectiveness must become a key priority to which non-traditional donors should also adhere. The commitments made at the Fourth High- Level Forum on Aid Effectiveness in Busan in December 2011 should be fully implemented.

Fig. 6: Foreign Direct Investment flows into Africa

Source: www.afrographique.tumblr.com, accessed in October 2011

V. Conclusions and Recommendations

This report concludes that the African region has made measurable progress in the implementation of commitments in respect of Agenda 21, the Programme for Further Implementation of Agenda 21, and the Johannesburg Plan of Implementation. With strong and sustained political commitment, well devised strategies, the involvement of national, subregional and regional stakeholders, and greater awareness of the implementation needs of sustainable development across the region, the results over the two decades would have been more robust. They have nonetheless been appreciable in light of the constraints facing implementation of these commitments.

A. Conclusions

This report reaches the following main conclusions:

a. The region appreciates the concept of, and the need for, sustainable development, but its understanding requires deepening at the level of subregional entities in order to facilitate effective integration of activities across the three pillars;

b. Overall, the region recorded encouraging progress in the implementation of sustainable development commitments, as reflected by the achievement of a number of the MDGs. It will not meet all the MDG targets by 2015, however. Achievement will vary across subregions. Significant challenges remain to be addressed;

c. Generally, the priority issues and trends in sustainable development were captured by the regional integration and development strategies of the RECs, which included some of the commitments from NEPAD progammes. Although these strategies were supposed to reflect each country's priorities as expressed in their development plans, there were in fact disparities between national and regional frameworks. Not surprisingly, priorities also differed across the five subregions;

d. Institutional frameworks for managing sustainable development existed but were inadequately coordinated, as issues and activities were handled by different bodies, especially at the country level. For instance, ministries of trade in some countries issued mining licences without coordinating their activities with ministries of environment, which dealt with environmental impact assessments;

e. Interlinkages among the pillars were understood, but project and programme implementation remained inconsistent with the requirements of balanced development. The result was overexploitation of resources in a bid to address the poverty and hunger challenge;

f. The green economy concept is yet to be fully understood and is perceived as an externally-driven development paradigm. Efforts are needed to deepen understanding of the concept;

g. Some of the challenges identified at WSSD in 2002, such as HIV/AIDS, ICT and the impact of globalization, persist and need attention. Since then, new challenges have emerged, including the global financial crisis (compounded by the sovereign debt crisis of the advanced economies); food, fertilizer and energy crises; climate change; and persistent human and institutional capacity challenges, as well as inadequate transfer of environmentally sound technologies; and

h. The means for implementation of sustainable development commitments were inadequate and this constituted a serious implementation constraint. There were insufficient funds for development projects and programmes; a multiplicity of policy frameworks, which created confusion; institutional weaknesses due to lack of capacity; inadequate political will and decisiveness to implement commitments; duplication of mandates and functions across institutions, leading to rivalries; poor articulation of frameworks for partnering with the private sector in order to exploit fully private sector contributions; and lack of long-term vision, which led to the implementation of unsustainable and incoherent short-term projects largely tied to electoral cycles.

B. Recommendations

In order to take the efforts of the region to the next level, this report recommends the following:

1. Institutional and policy framework for sustainable development

a. NEPAD as a framework for sustainable development in the region should continue to be upheld and its programmes adequately funded in order to achieve the development results Africans need. Sustainable development strategies must place emphasis on the social pillar so that the poor and less privileged are adequately targeted through social protection and development programmes;
b. A systematic programme to assist countries in the region in the development and implementation of National Strategies for Sustainable Development should be put in place. In addition to this programme, UNECA should lead a process of creating a platform for learning and knowledge sharing among National Councils for Sustainable Development in order to facilitate experience sharing, information exchange and networking;
c. National and regional development strategies should be driven by sustainable development frameworks to allow targets to be set for the achievement of sustainable development objectives. Countries and RECs should not simply integrate sustainable development objectives and policies in their development strategies. Present national sustainable development strategies should be made more comprehensive and capacity development programmes should be aligned with sustainable development needs;
d. Countries need to step up progress in harmonizing institutions responsible for sustainable development through integrated planning and to promote policy coherence. National Councils for Sustainable Development need strengthening; and
e. The AU should see to it that all countries in the region develop comprehensive national sustainable development strategies and implementation plans with clear milestones for the achievement of results in each of the pillars of sustainable development.

2. Leadership and political commitment

- Effective political leadership is at the heart of the drive for sustainable development. The region needs renewed commitment to sustainable development by African leaders. The emergence of a new generation of leaders should be encouraged through credible electoral processes, which respond to the need for change, reform and new perspectives in the pursuit of sustainable development; and
- Countries in the region need to step up awareness of the issues involved in sustainable development and provide appropriate incentives to encourage participation by all national stakeholders. Leaders in all sectors of the economy and society must take the lead in promoting sustainable development-compliant practices and ensuring commitment by all stakeholders.

3. Governance, processes and programmes

a. There is a need to enhance the comprehensiveness of the AU-NEPAD programme. The ten-year review of the implementation of NEPAD provides an excellent opportunity to further strengthen its focus on sustainable development. The implementation of the various components of the programme should be anchored in integrated and interlinkages approaches to growth and development;

b. The APRM is a good initiative for strengthening governance in the region. All countries should be encouraged to accede to it and undergo the review process. An Africa Sustainable Development Fund (ASDF) could be envisaged to earmark resources to help countries to implement the national plans of action (NPoA) resulting from the APRM reviews. Only countries with NPoA should qualify for access to resources from the ASDF; and
c. The APRM process should now include measures for assessing the extent of sustainable development-compliance of policies and programmes in its national plans of action.

4. Human and institutional capacity development framework

a. The Africa region needs a new capacity development strategy that will respond with clear results to the needs of sustainable development. Most of the present frameworks are inadequate and need revisiting in order to align them with sustainable development needs. Institutional capacity to deliver on the new strategy should be strengthened. The operational capacities of the NEPAD Planning and Coordinating Agency and the APRM Secretariat should be substantially enhanced. The structure, operations and capacity of the Agency, in particular, will need to be revisited in order to enable it to play a robust role as an AU think tank and help to drive the sustainable development agenda at the regional level;
b. NPCA should be strengthened to lead implementation, monitoring and evaluation of sustainable development commitments in the NEPAD agenda. It should have a regional capacity development strategy aligned with the pillars of sustainable development and be in a position to offer technical support to RECs and countries in developing and implementing sustainable development-compliant policies and programmes. To this end, the AU-NEPAD Capacity Development Strategic Framework should be substantially revised to provide a basis for the building of capacity for implementing sustainable development commitments;
c. UNECA should be strengthened and supported to implement effectively its sustainable development-related mandates at the regional and subregional levels in a manner that will benefit Member States and yield tangible sustainable development outcomes;
d. UNEP Regional Office for Africa needs to be transformed and strengthened into a fully-fledged regional institution providing technical guidance for sustainable environmental development in the region. It should be appropriately capacitated and resourced to undertake this responsibility;
e. Educational curricula should be reformed to include the development of knowledge and skills for sustainable development at all levels. Major private-sector firms should be encouraged to endow chairs in sustainable development in universities in the region;
f. Regional and subregional institutions, including NGOs promoting Africa's sustainable development agenda, need to be strengthened.

5. Financial resources

a. Africa needs substantial financial and technical resources to meet requirements for sustainable development. A funding window within present development assistance frameworks could encourage the creation of an Africa Sustainable Development Fund to assist with special interventions. Clear eligibility criteria would need to be in place for access to Fund resources. The Fund would provide stimulus for priority areas, which could include capacity development and reform of institutions and processes; research and development to support innovation and generation of new knowledge; exploration of policy options and testing of efficacy of environmental taxes; developing mechanisms for technology transfer, adaptation and application; and infrastructural policy reforms;
b. Country level sustainable national development trust funds should be created as joint ventures between the government and the private sector to provide resources for joint research and development programmes to be carried out in institutions of higher learning and specialized research centres on various sustainable development issues;

c. The NEPAD Agency, in collaboration with UNECA, AfDB and AUC, should explore mechanisms for mobilizing domestic resources for the implementation of sustainable development programmes in the region. Part of this effort should include helping countries to identify and develop innovative financing mechanisms to supplement government and development partner funds;
d. There is a need for a substantial increase in the Global Environmental Facility's resources and allocations made to countries for projects. Land degradation that was not catered for in the GEF-4 RAF should be included as an area eligible for intervention under the Facility;
e. The Rio+20 Summit must shore up support for adequate financing of the United Nations Convention to Combat Desertification, as it is the least resourced of all the Rio Conventions;
f. There is a need for countries to develop payment systems around the services provided by ecosystems and to institutionalize community-based resource programmes; and
g. The flow of foreign investment into the region is in response to a number of factors. The current concentration of inflows to a few countries leaves a number of countries disadvantaged. Conscious efforts are needed to even out the inflows.

6. Partnerships and shared responsibilities

a. The APRM provides for corporate, social and environmental responsibility, which the private sector has a significant role in implementing. Countries need price-based instruments and incentives for firms to engage in innovative processes, apply cleaner technologies, and invest in R&D. International trade should respond to the challenge. It is essential to remove barriers to trade in clean technologies and the entry of new firms, and to improve the conditions for entrepreneurship, especially in light of growing evidence that new-generation firms represent a relatively more dynamic source of innovative processes. There is also a need for more effective and inclusive multilateral cooperation in science, technology and the development of new knowledge. A sustainable development strategy will need to address such issues and consider challenges relating to cooperation across countries, funding arrangements, capacity-building and international technology transfer. With evidence showing considerable potential for further development and deployment of renewable energy, energy efficiency and other low-carbon technologies, tapping into this potential will be critical for the energy sector in Africa; and
b. National, regional and global institutions and development partners must work together to help African countries to achieve sustainable development goals. Changes in production processes and consumption behaviour are fundamental to sustainable development. These must support a reduction in the use of scare environmental resources, promote technological innovations which support growing levels of efficiency, raise awareness, improve knowledge, and step up regional and international cooperation and partnerships. Interventions require a robust mix of policy instruments, including market-based approaches, regulations and standards, measures to incentivize R&D, and information-based instruments to facilitate consumer choices. Correct pricing of pollution or the exploitation of a scarce resource through taxes, natural resource charges or tradable permit systems should be a key element of the policy mix if clear market signals are to be provided. Market-based instruments alone will not be enough to bring about a shift to sustainable consumption and production patterns, however. Regulations will be needed in cases where market failures result in weak responses to price signals or when a complete ban on certain activities is necessary, for example in the production and use of toxic chemicals. Other approaches, such as voluntary instruments and information-based measures such as energy efficiency ratings and well designed eco-labelling, can play an important supporting role in raising consumer and producer awareness of the environmental impact of specific activities, as well as of the availability of clean alternatives.

7. Integration, monitoring and evaluation of programmes and performance

a. Countries need support in the application of integrative approaches and tools in the management of the pillars of sustainable development. Regular country reporting to the Africa-CSD through UNECA should be instituted, and matters related to NCSDs included in the agenda of Africa-CSD meetings in order to ensure a proper and regular review of the institutional requirements for effective implementation of sustainable development commitments;
b. UNECA should enhance its work to promote balanced integration of the three pillars of sustainable development in the region. It should draw the region's attention to the need to give prominence to desertification and drought, which are major challenges to sustainable development;
c. UNECA should collaborate with other regional institutions to develop and apply monitoring and evaluation frameworks for sustainable development in the region, and to develop a database to facilitate performance tracking and the provision of technical support to countries on sustainable development strategy, policy and programmes;
d. With assistance from African countries and development partners, UNECA should establish a mechanism for systematically and regularly collating, processing and storing data and information on each of the components of sustainable development in the region in order to provide ready access to the data and information required by policymakers and development managers to monitor progress in the implementation of sustainable development commitments;
e. UNECA should continue to lead consultative meetings and processes to monitor and evaluate progress in the implementation of commitments by the region;
f. Platforms for all-stakeholder dialogue on sustainable development at all levels – regional, subregional and national – should be encouraged in order to promote a common understanding of what sustainable development means in the African regional context, how best to implement commitments and share the lessons of experience, and to determine what works and what does not work and why; and
g. UNECA should ensure that future progress reports on sustainable development are compiled using a participatory approach, with each country in the region reporting on its performance.

Sustainable development is not simply one option among many for the transformation of national economies and societies. It is a challenge that has to be addressed in order to ensure the long-term well-being of the region. In doing so, the region has to be mindful of the fact that the overarching priorities for Africans are still poverty eradication and wealth creation, provision of socio-economic infrastructure and services and food security. The main challenge is that, with a large number of African economies heavily dependent on natural resources, and the rural economy home to the majority of the poor who rely on subsistence agriculture, the vulnerability of the environment to economic and social development and unsustainable cultural practices remains very high.

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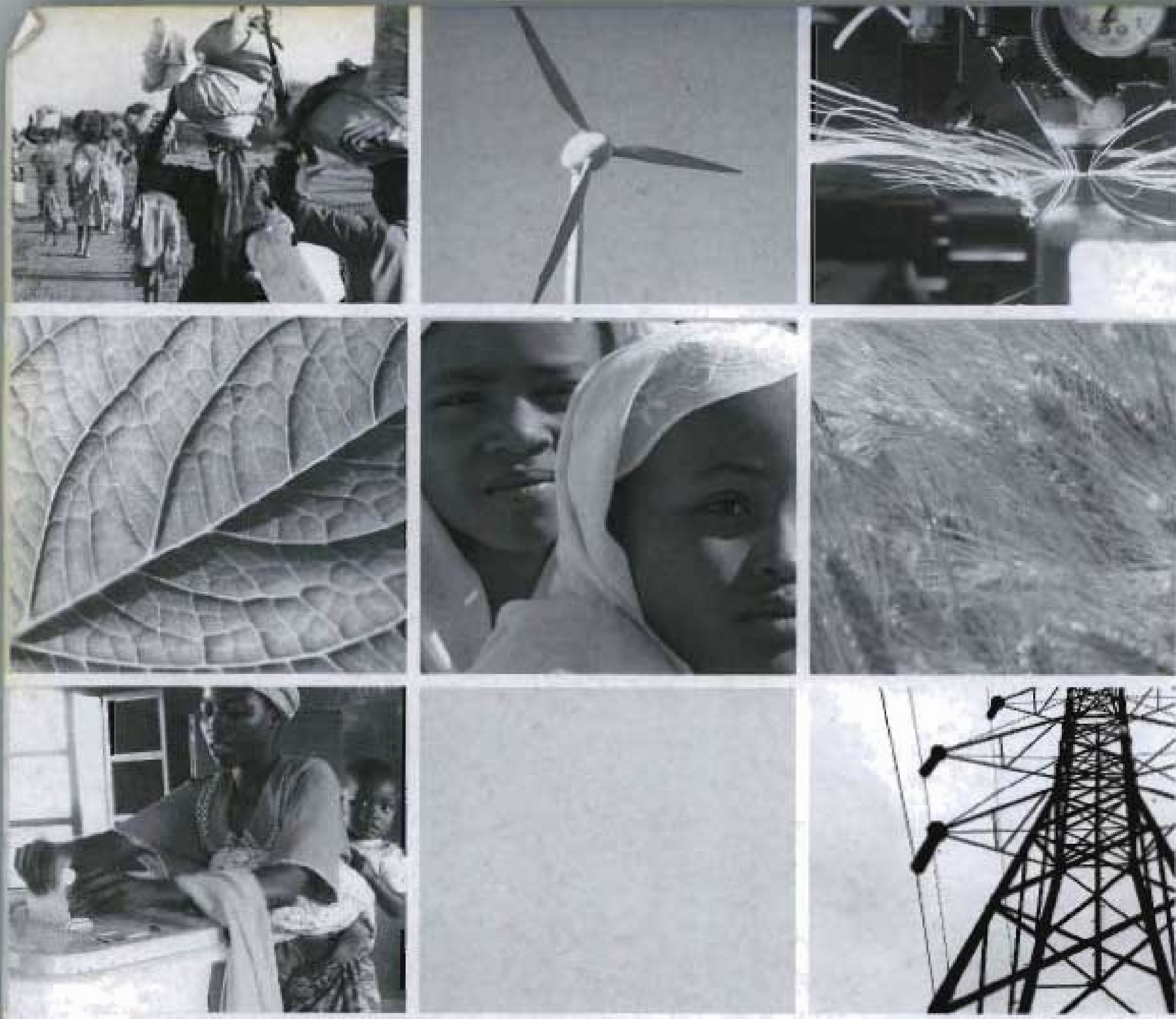

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