



# **Sustainable Consumption and Production in Africa**



*Final Report (July 2009)*

# **Africa Review Report on Sustainable Consumption and Production**

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*African Roundtable on Sustainable  
Consumption and Production (ARSCP)*

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## **ACRONYMS AND ABBREVIATIONS**

<b>10-YFP:</b>	<b>10 Year Framework of Programmes</b>
<b>A21:</b>	<b>Agenda 21</b>
<b>ABREW:</b>	<b>African Brewery Sector Water Savings Initiative</b>
<b>AEO:</b>	<b>Africa Environment Outlook</b>
<b>AEM:</b>	<b>African Eco labelling Mechanism</b>
<b>AfDB:</b>	<b>African Development Bank</b>
<b>AICC:</b>	<b>African Institute of Corporate Citizenship</b>
<b>AMCEN:</b>	<b>African Ministerial Conference on Environment</b>
<b>APCI:</b>	<b>African Productive Capacity Initiative</b>
<b>APRM:</b>	<b>African Peer Review Mechanism</b>
<b>ARSCP:</b>	<b>African Roundtable on Sustainable Consumption and Production</b>
<b>ASCN:</b>	<b>African Sustainable Cities Network</b>
<b>AU:</b>	<b>African Union</b>
<b>BCRC:</b>	<b>Basel Convention Régional Centre</b>
<b>CAADP:</b>	<b>Comprehensive Africa Agriculture Development Programme</b>
<b>CDM:</b>	<b>Clean Development Mechanism</b>
<b>CFSSD:</b>	<b>Committee on Food Security and Sustainable Development</b>
<b>CO<sub>2</sub>:</b>	<b>Carbon Dioxide</b>
<b>CP:</b>	<b>Cleaner Production</b>
<b>CPCT:</b>	<b>Cleaner Production Centre of Tanzania</b>
<b>CSD:</b>	<b>Commission on Sustainable Development</b>
<b>CESR:</b>	<b>Corporate Environmental and Social Responsibility</b>
<b>CFL:</b>	<b>Compact Fluorescent Lamp</b>
<b>CSR:</b>	<b>Corporate Social Responsibility</b>
<b>DAA:</b>	<b>Development Assistance Agencies</b>
<b>DRC:</b>	<b>Democratic Republic of Congo</b>
<b>DTIE:</b>	<b>Division of Technology, Industry and Economics</b>
<b>EAC:</b>	<b>East African Community</b>
<b>EC:</b>	<b>European Commission</b>
<b>ECA:</b>	<b>Economic Commission for Africa</b>
<b>ECOSOC:</b>	<b>Economic, Social and Cultural Council</b>
<b>ECOWAS:</b>	<b>Economic Community of West African States</b>
<b>EE:</b>	<b>Energy Efficiency</b>

<b>EMA:</b>	<b>Environmental Management Accounting</b>
<b>EMS:</b>	<b>Environmental Management Systems</b>
<b>ESC:</b>	<b>Education for Sustainable Consumption</b>
<b>EST:</b>	<b>Environmentally Sound Technologies</b>
<b>EU:</b>	<b>European Union</b>
<b>FAO:</b>	<b>Food and Agricultural Organization</b>
<b>FARA:</b>	<b>Forum for Agricultural Research in Africa</b>
<b>GDP:</b>	<b>Gross Domestic Product</b>
<b>GEF:</b>	<b>Global Environment Facility</b>
<b>GLTN:</b>	<b>Global Land Tool Network</b>
<b>GNP:</b>	<b>Gross National Product</b>
<b>GRI:</b>	<b>Global Reporting Initiative</b>
<b>IAEA:</b>	<b>International Atomic Energy Agency</b>
<b>ICCM:</b>	<b>International Conference on Chemicals Management</b>
<b>ICLEI:</b>	<b>International Council for Local Environment Initiative</b>
<b>IEA:</b>	<b>International Energy Agency</b>
<b>IETC:</b>	<b>International Environment Technology Centre</b>
<b>ILO:</b>	<b>International Labour Organization</b>
<b>IPCC:</b>	<b>Intergovernmental Panel on Climate Change</b>
<b>ISO:</b>	<b>International Organization for Standardization</b>
<b>ISWM:</b>	<b>Integrated Solid Waste Management</b>
<b>IWRM:</b>	<b>Integrated Water Resources Management</b>
<b>JPOI:</b>	<b>Johannesburg Plan of Implementation</b>
<b>KNCPC:</b>	<b>Kenya National Cleaner Production Centre</b>
<b>LA21:</b>	<b>Local Agenda 21</b>
<b>LCA:</b>	<b>Life Cycle Assessment</b>
<b>LCC:</b>	<b>Life Cycle Costing</b>
<b>MDGs:</b>	<b>Millenium Development Goals</b>
<b>MEAs:</b>	<b>Multilateral Environment Agreements</b>
<b>MESA:</b>	<b>Mainstreaming Environment and Sustainability in African Education</b>
<b>MSC:</b>	<b>Marine Stewardship Council</b>
<b>MSWM:</b>	<b>Municipal Solid Waste Management</b>
<b>MTFs:</b>	<b>Marrakech Task Forces</b>

<b>MVA:</b>	<b>Manufacturing Value Added</b>
<b>NEAP:</b>	<b>National Environment Action Plan</b>
<b>NCPC:</b>	<b>National Cleaner Production Centre</b>
<b>NEPAD:</b>	<b>New Partnership for Africa's Development</b>
<b>NEPAD-EAP:</b>	<b>NEPAD Environment Action Plan</b>
<b>NGO:</b>	<b>Non-Governmental Organization</b>
<b>NSSD:</b>	<b>National Strategies on Sustainable Development</b>
<b>OAU:</b>	<b>Organization of African Unity</b>
<b>ODA:</b>	<b>Official Development Assistance</b>
<b>OECD:</b>	<b>Organization for Economic Cooperation and Development</b>
<b>OMVG:</b>	<b>Organisation pour la Mise en Valeur du Fleuve Gambie</b>
<b>PES:</b>	<b>Payment for Ecosystem Services</b>
<b>PFIA 21:</b>	<b>Programme for the Further Implementation of Agenda 21</b>
<b>PGM :</b>	<b>Platinum Group Metals</b>
<b>PPP:</b>	<b>Public Private Partnership</b>
<b>PPP:</b>	<b>Purchasing Power Parity</b>
<b>PPT:</b>	<b>Pro-Poor Tourism</b>
<b>PRSP:</b>	<b>Poverty Reduction Strategies Paper</b>
<b>QSPs:</b>	<b>Quick Start Programmes</b>
<b>R&amp;D:</b>	<b>Research and Development</b>
<b>REC:</b>	<b>Regional Economic Commission</b>
<b>RIMs:</b>	<b>Regional Implementation Meetings</b>
<b>ROAAS:</b>	<b>Regional Office for Africa and the Arab States</b>
<b>RSC:</b>	<b>Regional Steering Committee</b>
<b>RUSPS:</b>	<b>Regional Urban Sector Profile for Sustainability</b>
<b>SADC:</b>	<b>Southern African Development Community</b>
<b>SAICM:</b>	<b>Strategic Approach to International Chemicals Management</b>
<b>SC:</b>	<b>Sustainable Consumption</b>
<b>SCP:</b>	<b>Sustainable Consumption and Production</b>
<b>SD:</b>	<b>Sustainable Development</b>
<b>SETAC:</b>	<b>Society of Environmental Toxicology and Chemistry</b>
<b>SIFT:</b>	<b>Sustainable Investment and Finance in Tourism Network</b>
<b>SME:</b>	<b>Small and Medium Enterprise</b>
<b>SP:</b>	<b>Sustainable Production</b>

<b>SSA:</b>	<b>Sub-Saharan Africa</b>
<b>TOE:</b>	<b>Tonnes Oil Equivalent</b>
<b>UCPC:</b>	<b>Uganda Cleaner Production Centre</b>
<b>UN:</b>	<b>United Nations</b>
<b>UNCED:</b>	<b>United Nations Conference on Environment and Development</b>
<b>UNDESA:</b>	<b>United Nations Department for Economic and Social Affairs</b>
<b>UNEP:</b>	<b>United Nations Environment Programme</b>
<b>UNESCO:</b>	<b>United Nations Educational, Scientific and Cultural Organization</b>
<b>UN-Habitat:</b>	<b>United Nations Human Settlements Programme</b>
<b>UNIDO:</b>	<b>United Nations Industrial Development Organisation</b>
<b>UNITAR:</b>	<b>United Nations Institute for Training and Research</b>
<b>UNWTO:</b>	<b>United Nations World Tourism Organisation</b>
<b>USEPA:</b>	<b>United States Environmental Protection Agency</b>
<b>WBCSD:</b>	<b>World Business Council for Sustainable Development</b>
<b>WHO:</b>	<b>World Health Organization</b>
<b>WSS:</b>	<b>Water Supply and Sanitation</b>
<b>WSSD:</b>	<b>World Summit on Sustainable Development</b>



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# **1 INTRODUCTION**

## **1.1 Background**

1. Transitioning to more sustainable patterns of consumption and production is at the heart of sustainable development, and international co-operation is essential to effect that transition. Recognizing this, governments at the Johannesburg Summit in 2002 called for the development of a 10-year framework of programmes (10-YFP) in support of regional and national initiatives to accelerate the shift towards Sustainable Consumption and Production (SCP) patterns that will promote social and economic development within the carrying capacity of ecosystems. The 10-YFP is a topic in the clusters of issues that will be discussed during the Commission on Sustainable Development (CSD)'s 18<sup>th</sup> and 19<sup>th</sup> cycles in 2010 and 2011. CSD-18 will review progress and achievements made, obstacles and challenges to the implementation of SCP, and CSD-19 will serve as a basis for negotiations for the 10-YFP on SCP. The Marrakech Process, led by the United Nations Environment Programme (UNEP) and the United Nations Department for Economic and Social Affairs (UNDESA), is a global platform that brings together all stakeholders to work jointly in the promotion and implementation of SCP patterns and the elaboration of a 10-YFP on SCP.
2. The United Nations General Assembly Resolution 58/218 mandated the Regional Commissions in collaboration with the Secretariat of CSD, regional institutions as well as United Nations organizations to organize multi-stakeholder Regional Implementation Meetings (RIMs) to provide regional input to the work of the CSD. The United Nations Economic Commission for Africa (ECA) in collaboration with other institutions and UN organizations including UNEP and the United Nations Industrial Development Organization (UNIDO) has therefore scheduled the Africa RIM for CSD-18 to be held in October 2009, under the auspices of the Sixth Session of the Committee on Food Security and Sustainable Development (CFSSD-6). This RIM will review progress achieved in the thematic cluster of issues to be

discussed at CSD-18 based on commitments, goals and targets agreed in the Agenda 21 (A21), the Programme of Further Implementation of Agenda 21 (PFIA21), and the Johannesburg Plan of Implementation (JPOI) of the Outcomes of the World Summit on Sustainable Development (WSSD). To undertake this implementation review, the Committee will have before it a regional review report on SCP. The Secretariat of the African Roundtable on Sustainable Consumption and Production (ARSCP), with the guidance from UNEP and UNECA, has taken the leading role in the preparation of the Africa Regional Review Report on Sustainable Consumption and Production. This report aims to undertake an in-depth review of concrete actions taken and achievements made, identify and document implementation challenges and constraints, and propose the way forward to accelerate implementation progress in the area of SCP in Africa.

## **1.2 Relevance of SCP to Africa**

3. By definition, SCP means *“the production and use of goods and services that respond to basic needs and bring a better quality of life, while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardise the ability to meet the needs of future generations”* (Oslo Symposium, 1994). The main objective of SCP is to promote social and economic development within the carrying capacity of ecosystems and the de-coupling of economic growth from environmental degradation. The implementation of SCP as an integrated approach helps to achieve overall development plans, reduce future economic, environmental and social costs, strengthen economic competitiveness and reduce poverty.
4. To promote Sustainable Consumption and Production in Africa, it is very important to put its relevance into context. For example, given that 41% of the African population is below poverty line (UNDESA, 2008b), it is essential that sustainable consumption is not automatically translated into “consuming less” – as this is highly irrelevant in the region. The large segment of the African population living in poverty has a real need to rather increase their consumption

of basic products and services. Sustainable consumption in the African context refers to more efficient, better informed and less resource intensive consumption, creating opportunities to meet basic needs for the ever increasing population. For many poor people in Africa, the quality of their environment and of the natural resource base is a matter of survival. The challenge is to provide more people with a better quality of life without undermining the natural resource base and destroying the ecosystems on which everybody depends. More efficient resource use allows poor people to meet more of their needs - or consume more – from the same resource base

5. Many of the underlying causes for other priorities are in fact directly linked with how we use resources for production and consumption. For example, domestic water and energy needs often require that women spend several hours daily collecting water and wood or other fuel, hindering them to spend time on other activities such as income generating activities or education. A water and energy system based on the SCP approach should provide everybody with clean water and affordable energy. Another example is vehicle transportation systems in cities which are causing health risks, air pollution and economic losses. By shifting these forms to public and efficient transportation systems and by promoting clean fuels and energy efficient vehicles, many of these problems could be addressed simultaneously. SCP therefore contributes to meeting other objectives. Examples of objectives which are directly relevant to SCP, and which are imperative if Africa is to reduce poverty, are as follows:

- Acceleration of industrial development to provide employment and enhanced incomes and to raise financial resources needed to stimulate growth. Any national industrialization strategy must however be environmentally sustainable and must not be a contributor to further environmental degradation.
- Increasing sustainable agricultural production for food security and avoiding degradation of the natural resource base.

- Avoiding the depletion of water resources through water conservation measures.
- Increasing energy efficiency and access to affordable and sustainable energy sources.
- Improvement of infrastructure and sustainable human settlement patterns to reduce congestion and pollution and improve access to infra-structural services such as water and sanitation.

SCP should therefore be seen as a basis for sustainable resource use, which can help to achieve new sustainable development models as Africa explores the potential and possibility to leapfrog to sustainable development. Sustainable Consumption and Production are therefore essential tools to attain the Millennium Development Goals (MDGs), in particular goals one and seven, which relates to the eradication of poverty and hunger, and to ensure environmental sustainability. SCP is also an opportunity to leapfrog to more resource-efficient, environmentally sound and competitive technologies and infrastructures.

As governments and other actors consider how to manage energy, food and water crises and build a Green Economy, promoting and implementing holistic and integrated policies and actions towards SCP will help to address these crises.

### **1.3 Methodology of the study**

6. The Africa Review Report was prepared keeping in close view, priorities and developments in the region such as the Millennium Development Goals and poverty eradication, the African Union (AU) and the New Partnership for Africa's Development (NEPAD)'s priorities and programmes. It included a participatory process so as to gain consensus on the priority issues to be covered. The preparation of the report has kept into focus the current regional institutional

setting and arrangements for SCP and the following on-going key processes and initiatives in the region:

- A. The NEPAD's Environment Action Plan
  - B. The Marrakech Process, the African 10-YFP and the Marrakech Task Force on Cooperation with Africa
  - C. African Roundtables on Sustainable Consumption and Production
  - D. UNIDO-UNEP National Cleaner Production Centre (NCPC) Programme
  - E. The CSD-Africa process
7. A number of strategies were pursued to achieve the objectives of this assignment. These included:
- (i). Review of A21, PFIA21 and the JPOI, which outline a broad array of strategies and actions to foster SCP. Annex 1 gives the list of SCP commitments contained in Chapter III of the JPOI. In addition, Chapter VIII of the JPOI contains 47 recommendations aimed at promoting Sustainable Development (SD) in Africa within the framework of NEPAD and many of these recommendations are also relevant to SCP.
  - (ii). Secondary statistical data sets and qualitative information available from regional and international institutions which have programmes on SCP as well as from country reports were used for production and consumption patterns overviews and positive initiatives undertaken.
  - (iii). In order to map out SCP activities in the region, and to support the implementation of SCP activities in countries, the report set out for providing an overall picture of the current state and recent trends in consumption and production patterns with regard to processes, products and services in Africa, focusing on key thematic issues from an SCP perspective, including economic sectors, with high environmental impacts such as industrial production, food production and consumption, tourism ,

transport services, energy development and waste generation and management . A focus on implementation initiatives taking place at the city level was ensured due to the increasing urbanization in Africa and that the opportunity for large scale environmental and social gains may be greater in cities through more integrated and efficient spatial planning, investment in collective transport, waste collection and management etc.

- (iv). A focus-group e-mail survey was carried out to identify barriers to SCP in Africa and discuss the way forward. The participants were from Government, Private Sector, Non-Governmental Organisations (NGOs) including consumer associations and from regional/ international organizations. The participants were chosen from the list of participants who attended the Fifth African Roundtable on SCP in Johannesburg in June 2008 and from the ARSCP network. The selection ensured a regional balance. The synthesis of the survey is given in Annex 2. Its results helped in the identifications of challenges and constraints and in the recommendations for the way ahead.
  
- (v). To discuss the way forward the report considered priority areas for programmes/activities on SCP in the region under the following four clusters listed below;
  - (a). Institutional and Policy Mechanisms (National Action Plans for SCP; Enabling SCP Policies and instruments)
  - (b). Supporting Tools and Instruments (Cleaner Production, sustainable procurement, sustainable cities, mobility ,buildings and construction, food and agriculture, sustainable tourism, sustainable water use, sustainable energy use, Integrated Solid Waste Management(ISWM), eco-labelling etc)
  - (c). Education for SCP (awareness of decision makers, youth education, SCP skill development).
  - (d). Means of Implementation (Finance, Technology Transfer, Capacity building, partnership and collaboration, information outreach)

## **1.4 Structure and outline of the Report**

**8.** The report is structured as follows:

Chapter 2 sets the scene for further analysis by providing an overview of the economic, demographic and social situation and trends, which have relevance for SCP in Africa.

Chapter 3 reviews the progress and achievements made in key theme areas relevant for SCP in the region: the development of the African 10-YFP, sustainable energy development, industrial production, food production and consumption, buildings, transport services, water and sanitation, waste generation and management, policies and instruments. The sections under each theme consider its relevance to SCP, current status and trends, resulting environmental and social impacts, and the status of SCP-relevant policies related to the theme. Opportunities and positive initiatives are also presented. A focus is kept on implementation initiatives taking place at the city level.

Chapter 4 focuses on the challenges and constraints for the development of SCP in Africa. Barriers to the spreading of positive initiatives and the key issues for developing SCP in Africa are discussed.

Chapter 5 reflects on the lessons learned and identifies the way forward. It lays emphasis on the institutional and policy mechanisms, the supporting tools and instruments, the means of implementation and the requirement for education at all levels.

Finally the main conclusions derived from the review are given in Chapter 6.



## 2. BROAD TRENDS IN PRODUCTION AND CONSUMPTION IN AFRICA

9. The African region encompasses a vast area of widely differing economic, demographic and social situations and development trends. To set the scene, this chapter provides a brief economic and demographic background to the region and outlines trends in production and consumption and related environment pressures. Most of the data presented in this chapter are taken from the following publications: The World Bank's "Africa Development Indicators" of 2007, the United Nations Department of Economic and Social Affairs' report on Trends in Sustainable Development for Africa (2008-2009), the report of the Secretary-General on Africa for CSD-16 in 2008 and the 2008 Global Footprint Network Report for Africa.

### 2.1 Regional overview

10. Africa covers 20.4 per cent of the global land area, contain about 13 per cent of the world's population, but generates only 1.7 per cent of the global Gross Domestic Product (GDP) and 2 per cent of the world trade. Annex 3 gives a breakdown of population, land area, GDP and % of rural population for the 53 countries in the region while Table 2.1 gives the average figures region-wise.

**Table 2.1: Area, population and GDP (ADI 2007))**

	<i>Population (millions)</i>	<i>Land Area (thousands of sq Km)</i>	<i>Population density (people per sq Km)</i>	<i>GDP per capita, PPP(Dollars) Constant 2000 prices</i>	<i>% share of rural population to total population</i>
<b>Sub-Saharan Africa(SSA)</b>	801	23,629	33.9	601.6	64.1
<b>North Africa</b>	157	5738	27.3	2136	47.1
<b>All Africa</b>	958	29,367	32.6	852	61.2

**11.** Differences among the countries are considerable. Population ranges from 0.2 million in Sao Tome and Principe to 148 million in Nigeria , population density from 2.5 persons per km<sup>2</sup> in Namibia to 622 persons per km<sup>2</sup> in Mauritius and GDP per capita from 282 US\$ in the Congo Dem. Rep. to 28,923 US\$ in Equatorial Guinea. The greatest differences among countries are in their size, ranging from 460 km<sup>2</sup> in Seychelles to 2,376,000 km<sup>2</sup> in Sudan. The region is thus large and diverse, with the 53 countries in the region having their own specific characteristics with regard to economy, culture, language, climate, industry structure, politics etc. Therefore the recommended approach for promoting SCP will vary from country to country.

Natural resources are the basis for economic and social development in Africa. The poor tend to rely more on the natural resource base for their livelihoods than the rich. Unsustainable production patterns can result in significant social and environmental side effects that undermine the prospects for poverty reduction. And the unsustainable consumption patterns of the consumer class may further limit the “ecological space” available to poor people to meet their basic needs.

## **2.2 Economic Growth and welfare**

**12.** Reversing previous trends, African economies have performed well in the new millennium. In the past few years, sub-Saharan Africa(SSA)’s GDP growth has been accelerating, averaging 5.9% in 2005, 6.1% in 2006 and an estimated 7% in 2007(UNDESA, 2008a). Per capita GDP grew by almost 2% per year from 2000 to 2005, whereas it had actually declined slightly during the 1990s (Figure 2.1). In 2005 eight countries were near or above the 7% threshold needed to sustain poverty reduction. Africa’s recent growth performance has been underpinned by improvement in macroeconomic management in many countries and strong global demand for key African export commodities, sustaining high export prices, especially for crude oil, metals and minerals. Value added as a % of GDP in 2005 for agriculture, industry and services were 14%, 29% and 57% respectively (Figure 2.2).

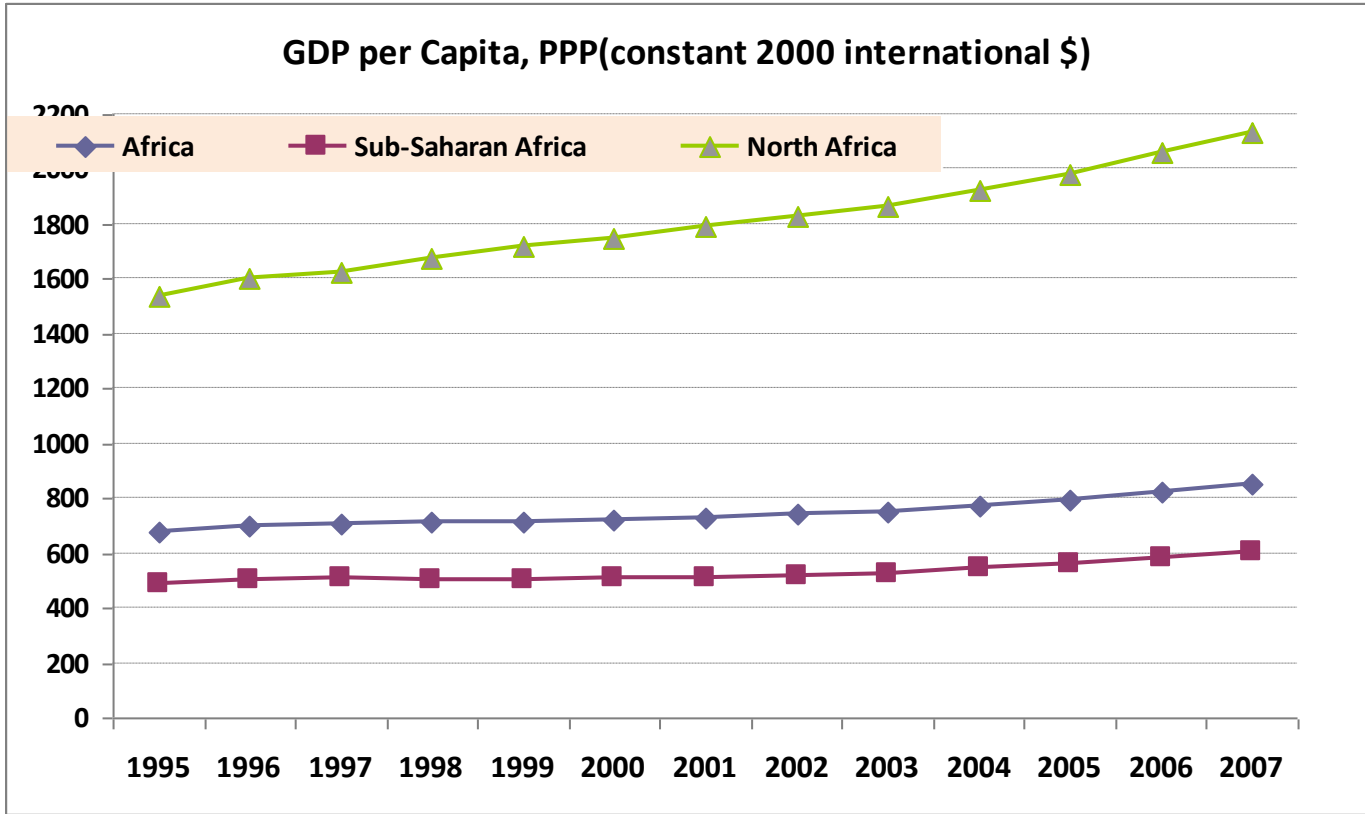


Figure 2.1: GDP in purchasing power parity (PPP) per capita (1995-2007)

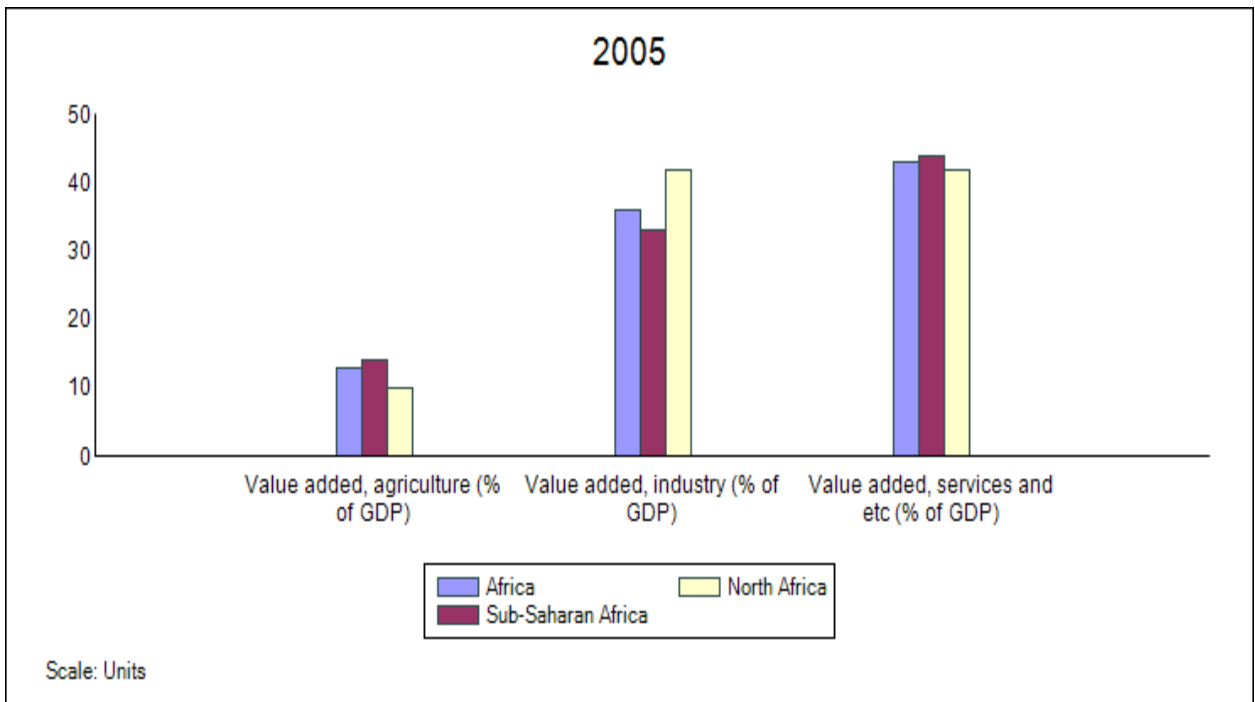


Figure 2.2: Growth across economic sectors

- 13.** Economic figures for sub-Saharan Africa as a whole can be misleading because averages often hide a high variability of situations and trends. South Africa and Nigeria account for more than half of sub-Saharan Africa's GDP. South Africa, though the most industrialized country in Africa, has an economy which is also largely dominated by services, which account for two thirds of the GDP. Nigeria, by contrast, is predominantly industrial, reflecting the importance of the oil and gas sector. With poorer countries growing more slowly, the gap between their incomes and those of richer countries has widened. Africa has become more unequal across countries. Botswana, Cape Verde, Gabon, Mauritius, Namibia, Seychelles and South Africa, with 9% of the region's people has 45% of its GDP.
- 14.** Structural change in African economies has been limited, with most economies still dominated by the agricultural or mining sectors. In 2005, agricultural raw materials, ores and metals and fuels represented 68% of the region's exports (UNDESA, 2008a). African economies remain insufficiently diversified. Natural constraints, conflicts, insufficient infrastructure, poor governance and weak technological capabilities have constituted major impediments to this diversification process.
- 15.** Agriculture remains an important sector in much of the sub-Saharan Africa. It provides 57% of all employment, though only about 17% of the GDP (UNDESA, 2008a). In at least 20 countries, more than 70% of the labour force works in agriculture (UNDESA, 2008b). The poorest members of society are those who are most dependent on rain-fed agriculture for jobs and income. Growth in agriculture value added averaged 4.6% in 2004, but too little of it has come from higher productivity or yields. Agricultural production is mostly increased by the expansion of cultivated area at the expense of forest and pastures. However, an encouraging trend has been noted with the emerging high value crops-namely horticulture and oil seeds crops. Average agricultural value added per worker is low in many countries, reflecting a low degree of mechanization and limited penetration of improved seeds and inputs such as fertilizers. Productivity growth will require an expansion of area irrigated (less than 4% of cultivated land is irrigated (ADI, 2007)), as well as better performance of rain-fed agriculture. The agro-

industrial sector is still at a low level of development that it is yet unable to act as a driver for the agricultural sector.

- 16.** Industrial diversification has been recognized as a priority for Africa (JPOI, paragraph 62 (F)). Despite the importance of industry in the context of sustainable development and poverty reduction, the continent lags behind other developing regions in industrial performance. The share of manufacturing value added in sub-Saharan African GDP had fallen from 16.7% in 1989 to 14% in 2005. If South Africa is excluded, the share of sub-Saharan African industries in world industrial output fell from 0.79% to 0.74% over the period from 1990 to 2002. (ADI, 2007)
- 17.** Economic Development can, and should bring with it improvements in human well-being and quality of life. The UN's Human Development Index (HDI), which takes into account life expectancy, literacy, education and standard of living, shows a reasonably strong correlation with GDP. HDI increases most rapidly with rising GDPs for the poorer economies (Figure 2.3). In more affluent economies, however, further growth in economy brings less rapid improvements in HDI. Some countries appear to be less successful than others at transferring economic wealth into quality of life. The positive impacts of economic growth on quality of life are limited if the increasing wealth is not distributed evenly across society. The Gini coefficient is most commonly used as a measure of inequality of income distribution. It is defined as a ratio between 0 and 1: A low Gini coefficient indicates more equal income or wealth distribution, while a high Gini coefficient indicates more unequal distribution. Annex 3 gives the Gini coefficient for several African countries where data was available. With a Gini coefficient of 51%, Africa has the worst income distribution in the world (<http://www.uneca.org/era2000/chapter1.pdf>).
- 18.** Poverty and health conditions are intimately related. African populations are heavily burdened by poverty-related diseases. Sub-Saharan Africa is the only region of the world where life expectancy has fallen over recent decades, reaching levels below 40 years in Botswana, Lesotho, Zambia and Zimbabwe. The child mortality rate is the highest in the world, with an average under 5 mortality rate of 163 per 1000 in 2005 (UNDESA, 2008b).

- 19.** Access to water and sanitation is very low. In 27 African countries, greater than 30% of the population does not have access to safe water. In nine of those countries, more than 50% of the people lack access to safe water. There are 36 African countries where more than 50% of the population lacks access to sanitation. While much of the world is on track to meet the MDGs on water and sanitation, most of Africa is not. To meet the MDGs in sub-Saharan Africa, more than 23 million people a year will need to gain access to an improved water source; nearly 28 million per year to basic sanitation. While the proportion of people who lack access to water and sanitation is significantly higher in rural populations, the rapid urbanization is putting greater pressure on larger scale municipal services.
- 20.** At the midway point between their adoption in 2000 and the 2015 target date for achieving the MDGs, sub-Saharan Africa is not on track to achieve any of the goals (Table 2.2). Poverty has been reduced but remains widespread, in spite of successes during the last decade. More than 41% of the people in sub-Saharan Africa (or roughly 300 million people) still live on less than \$1/day. Many Africans remain trapped in dire poverty, heavily dependent on a fragile natural resource base and vulnerable to economic and environmental shocks. A study by the International Food Policy Research Institute in 2007 on extreme poverty finds that of the 162 million “ultra poor” people in the world who subsist on less than \$0.50 a day, 121 million live in Sub-Saharan Africa<sup>1</sup>. Although sub-Saharan Africa is not expected to reach most of the MDGs by 2015, there is substantial variation among countries in both the level of attainment of the goals and the pace of progress. Mauritius, Botswana and South Africa have met three goals. Among other countries, nine will meet two goals and thirteen will meet at least one. But despite progress, twenty-three African countries are not likely to meet any of the MDGs.

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<sup>1</sup> ([www.ifpri.org/media/20071106Deprived/](http://www.ifpri.org/media/20071106Deprived/))

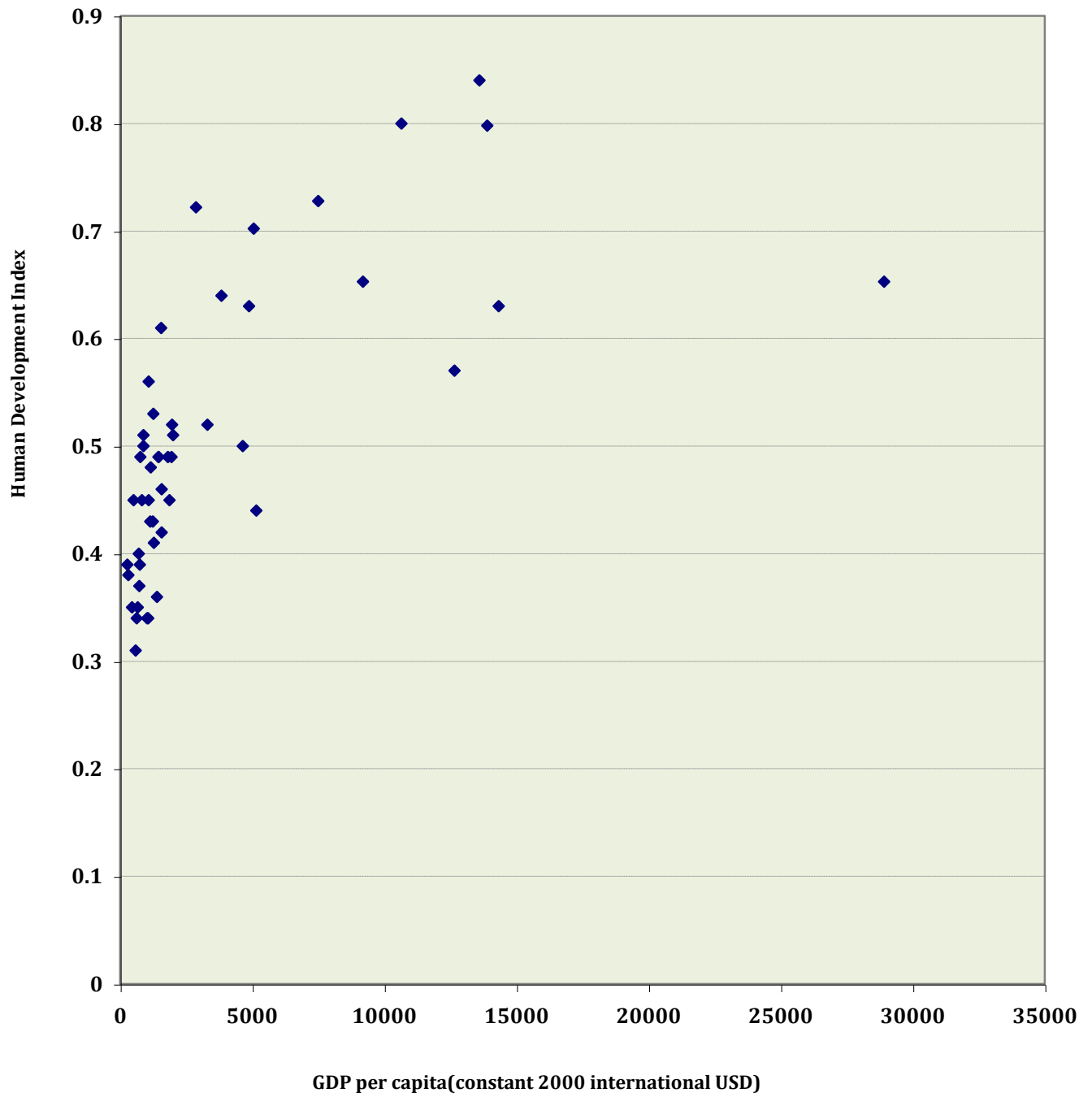


Figure 2.3: Human Development index versus GDP in Africa (2006)

**Table 2.2: Progress towards the MDGs in SSA (1990-2015) Source: UN (2008)**

	1990	2006	2015 (Target)
MDG1: people living on less than US\$1per day (% of population)	45	41	22
MDG2: Primary education enrolment rate(% of relevant age group)	54	71	100
MDG3a Promoting gender equality: primary education(% girls in schools)	0.82	0.89	1
MDG3b:Promoting gender equality: secondary education	0.75	0.80	1
MDG4:Under-five mortality rate(per 1000 births)	187	157	62
MDG5: maternal mortality rate(per 100,000 live births)	920	900	230
MDG6: Combating HIV/AIDS, malaria and other diseases			
MDG 7a: Access to improved water source (% of pop.)	49	58	75
MDG7b: Access to improved sanitation(% of population)	26	31	63
MDG8a:ODA flows(% of donors' GNI)	On the decrease	Increased to 0.3% in 2003	0.7% as agreed in Monterrey
MDG8b: Debt sustainability	N/A	12 African countries reached completion point in 2004	



Policies and actions supporting SCP can serve to bolster poverty reduction efforts and support sustainable long term growth. Measures which reduce inefficient use of resources are particularly relevant in low-income countries where severe resource scarcities mean that wastage has high opportunity costs. By conserving natural resources and the revenues that they generate and in particular by avoiding degradation of ecosystems, SCP measures can protect the incomes of the poor and enhance food security (MDG1). A more efficient and less polluting use of natural resources can improve quality of life by preserving the regulating functions of ecosystems and reducing environmental health problems (MDGs 4, 5 and 6). SCP also contributes directly to ensuring environmental sustainability (MDG 7) and global partnerships (MDG 8) can support the development of innovative products and services that help to meet basic needs in a more sustainable manner. In other words, SCP could help African countries to leapfrog to sustainable models of development.

### **2.3 International trade and impacts on production**

21. Economic structural changes may partially reflect changes in national consumption patterns and a greater demand for services. However, structural changes in national economies have also been significantly influenced by growth in international trade, particularly exports of fossil fuels and metals and increasingly the import of manufactured goods from other parts of the world. Figure 2.4 shows the growth in international trade between Africa and the rest of the world. Exports have increased sharply in the last years. In absolute value terms, exports increased by 12 per cent per annum on average over the period 1995-2006 in Africa. However, when the increase in value is disaggregated between volume and price effects, it appears that this is mainly due to rising world prices for African exports over the last few years. Indeed, export volumes grew by a yearly average of only 6 per cent over the period, which is lower than the comparable figures for all developing countries export (9 per cent). Raw materials (minerals, fuels and related products) constitute more than 60% of Sub-Saharan Africa's total exports (UNDESA, 2008a). Asia is rising as Africa's trade partner. More than a quarter of African exports headed to Asia in 2005 compared to 14% in 2000 (UNDESA, 2008b). Imports of merchandise from China and India have also grown very rapidly in recent years. India exports mainly pharmaceutical products,

manufactured goods, rice and cereals. China's exports mainly cheap manufactured goods such as electronics and household items.

**22.** Most countries in the region remain essentially primary commodity exporters, with only a handful of countries-South Africa, Nigeria, Angola, Botswana, Madagascar, Mauritius, Kenya, Cameroon, Zambia and the North African countries- drawing a significant part of their export revenues from manufactured products. In comparative terms, sub Saharan African remains the region with the highest export dependency on primary commodities. For almost half of the countries in Sub-Saharan Africa, agricultural commodities are the main exports. Sub-Saharan Africa's agricultural exports are concentrated in a few commodities (coffee, tea, cocoa, sugar, cotton, bananas) .However due to a number of constraints sub-Saharan Africa is still weakly integrated in high value agricultural markets.

**23.** The Economic Development in Africa report (UNCTAD (2008)) shows that extensive trade liberalization undertaken by African countries has not been followed by a substantial improvement in their export performance. As a proportion of GDP, exports in Africa increased only by 10 per cent following liberalization. In comparison, non-African developing countries saw their exports as a share of GDP increase by 62 per cent. African exports continue to grow at a lower rate than other regions in volume terms and it is only the rising prices of fuels, minerals and other primary commodities since 2002 that have maintained African export values at a level comparable with other developing regions. Manufacturing exports represent a negligible proportion of GDP in most African countries. This suggests that there are serious obstacles hampering a supply response to the new incentive structure created by the removal of barriers to trade. The obstacles mainly consist of structural problems related to weak capacity in the production and marketing of exports in both the agricultural and manufacturing sectors.

The issue of unrestricted market access for SSA has featured lately in the debate on overcoming Africa's development challenges through international trade, rather than aid. Greater liberalization of agriculture trade in the markets of developed countries is for example key to improving Africa's agricultural export performance. As a result of the boom in world commodity prices, most African countries have benefited from increased

export revenues since 2000. Improvement in the management of the increased revenues is critical. Greater Corporate Environmental and Social Responsibility (CESR) and greater transparency in the management of financial flows require urgent attention.

24. Tourism dominates services exports, both for the region overall and for several countries. There is great potential for further development of this industry in the region which can provide an important source of employment and bring positive spill-over effects in terms of improved infrastructure and technology transfer and knowledge and managerial skills.



**Figure 2.4: International Trade in the African region (1995-2007)**

## 2.4 Socio-demographic trends of relevance to consumption

25. From 1970 to 2005, African populations increased by 126% and 162 % in North and Sub-Saharan Africa respectively (UNDESA, 2008a). Population growth is still strong (Table 2.3). High fertility rates will translate into rapid population growth well into the century. From 520 million in 1990, population is expected to reach 1.3 billion by 2030.

Although growth rates have begun to decline since around 1985, part of the explanation of the rapid demographic growth lies in very high fertility rates and in the large number of youths. In countries like Angola, Chad and Niger the average number of children is still above 6 per woman. (UNDESA 2008b) Fertility rates tend to decrease over time, notably with rising incomes.

**Table 2.3: Socio-demographic trends in Africa (1997-2007)**

	Population Growth, Annual %		% population under 14		% population over 65		Urban population, %	
	1997	2007	1997	2007	1997	2007	1997	2007
Sub Saharan Africa	2.7	2.4	44.7	43.1	2.9	3.1	31.4	35.9
North Africa	1.7	1.6	36.8	30.4	4.3	4.9	50.5	52.9
Africa	2.5	2.2	43.3	41.0	3.2	3.4	34.8	38.7

- 26.** Compared to other developing countries sub-Saharan Africa's population is very young. Currently half of the population is less than 18 years old. The share of people under 15 in total population is expected to decline only slowly, from 46% in 1990 to 36% in 2030. Population aged 15 to 59 is expected to grow from 456 million in 2010 to 758 million in 2030 (UNDESA, 2008b). This young population structure represents a particular challenge for African countries for education and employment, and for the structural transformation of the economies.
- 27.** Africa offers stark contrast in terms of urbanization. Countries like Burundi, Rwanda, Ethiopia and Burkina Faso are still mainly rural, whereas in Gabon more than 80% of the population live in urban areas. Nigeria, the most populous country in Sub-Saharan Africa has seen the proportion of people living in urban areas grow from 44 to 52% in 10 years. (UN-Habitat, 2008). By 2020, the urban population is expected to be 646 million up from 302 million in 2000. While insufficient data exists to accurately ascertain the magnitude of urbanization, available statistics indicate a current rate of urbanization in Africa of around 3.5 percent per year. This rate is the highest in the

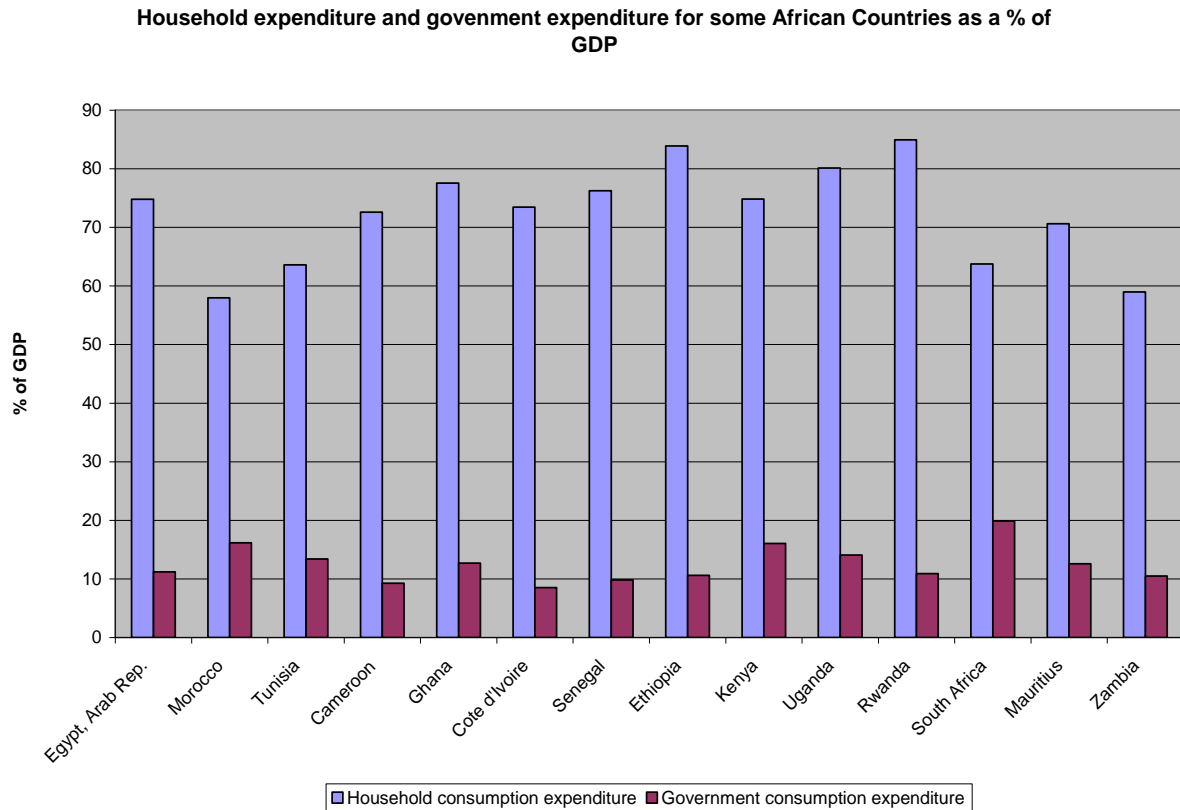
world, and is resulting in the rapid growth of urban agglomerations throughout the region. By 2030, the proportion of Africa's urbanized population is expected to reach 53.5 percent, compared to 39 percent in 2005 (UNDESA, 2008b). This fast rate of urbanization places strain on infrastructure and other services. Urban growth presents daunting challenges for development as migrants have to be provided with land access, infrastructure and basic services. Many of the newly urbanized live in slums. There is a growing and urgent need for integrated approaches to environmental planning and management. The level of urbanization has a strong impact on the patterns and impacts of consumption. Dense urban areas can benefit from more efficient provision of services such as multi-apartment housing, collective transport or waste collection and treatment. On the other hand, in sprawling urban areas the demand for transport can be high and the provision of collective services more difficult to organize. In addition, consumption of processed foods and goods, electronics etc and generation of household wastes is higher in urban area than in rural areas.

28. In large cities, there is evidence of a growing urban middle class and their adoption of western consumption patterns have environmental consequences , such as increasing private car ownership, increase in meat consumption and the emergence of low density detached housing developments in sub-urban area. This trend also offers opportunities for national and sub-regional markets of food producers. Meeting that potential demand requires the development of integrated food value chains in these different spaces.

## **2.5 Consumption by State and Households**

29. In all countries of the region, household expenditure exceeds government expenditures by far (Figure 2.5). In the whole of Africa, household final consumption expenditure was 68% of the GDP in 2007, compared to 13% for the general government's final consumption expenditure as a % of GDP. The ratio of household to government expenditure range from 1.8 in Botswana to 13.8 in Guinea. With respect to government consumption, the potential benefits of sustainable procurement policies remain significant. A rise in income levels and household expenditures has potentially positive social implications, provided that the majority of the population is benefiting. However,

it also tends to lead to an overall rise in environmental impacts related to household consumption.



**Figure 2.5: Household expenditure and government expenditure for some African countries as a % of GDP**

- 30.** According to household surveys carried out in a number of African countries, food still dominate household expenditures across the African region, ranging from 50 to 75% of the mean monthly expenditure. Household consumption patterns will vary according to the socio economic factors, with lower income countries having greater proportions of household expenditures on food while for upper income countries, more is spent on transport and communication and recreation and healthcare. Consistently across countries, the lowest income groups, which often represent the vast majority of the population, spend more than half of their budgets on food. As income rises the proportion of income spent on food tends to decline sharply, allowing for a greater portion of expenditures to go to health and other uses.

- 31.** The level and type of environmental pressures associated with household consumption depend both on absolute levels of consumption (how much is consumed) and on patterns of consumption (what products and services) as well as on the various pressure intensities of these products and services (i.e. environmental pressures per unit of consumption). For some goods and services, environmental pressures dominate during the consumption phase of the life cycle and can be directly attributed to households. For other goods, such as food, the majority of pressures can be associated with production (or disposal). Economy wide analysis of environmental pressures is yet to be carried out in Africa.

## **2.6 Production and Consumption trends in key sectors**

### ***2.6.1 Food production and consumption***

- 32.** Food along with housing and transportation is one of those consumption categories which cause the highest environmental impacts over the life-cycle. Production of food is intrinsically associated with the use of water and land, and agriculture-encompassing both crop production and animal husbandry-accounts for most of the environmental impact of the food production and consumption cycle. For example, agriculture consumes on average 70% of the total water used globally. However, there are other significant effects of the food production and consumption chain, including impacts from transportation, processing, packaging and retailing of food, and food wastes generated at the point of consumption. Also, high food prices can have a dramatic impact on African economies.
- 33.** Agricultural development is of fundamental importance to the achievement of broad-based economic growth, food security and sustainable development in Africa. Agriculture is still largely oriented towards subsistence agriculture. Africa's main commodities are cassava, sugar cane, yams and maize. Sorghum, plantain and rice are also important food staples. Livestock and fisheries are also major sources of food for the African people. From a study undertaken by IFPRI during 1996-2000, for sub-Saharan Africa as a whole 72 per cent of the food traded was for sale in domestic

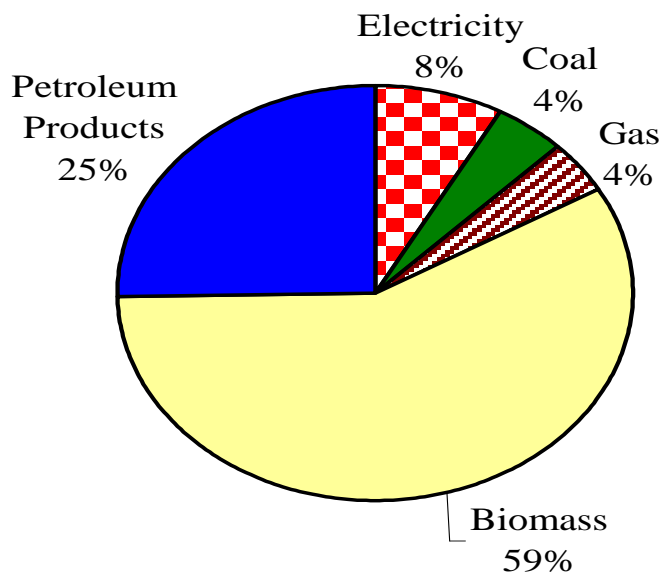
markets for food staples.(UNDESA, 2008A). However African agriculture remains very fragile. Low soil fertility, scarce irrigation, poor rural infrastructure, insufficient finance and recurrent droughts are among the major challenges facing sub-Saharan African agriculture. And as a result of economic and environmental constraints, fishing and livestock raising have failed to keep up with the growing African population. As a result food insecurity remains a major concern, with 24 sub-Saharan African countries requiring external food assistance at the beginning of 2007 (UNDESA, 2008a).

- 34.** The performance of agriculture in Africa has slightly improved, with annual agricultural growths averaging about 3.9% during recent years. It has been possible during the last decade to lift agricultural growth at a level above the rate of population growth in the region as a whole (FAO, 2006). However, while growth did take place, it did not really lead to improved food security and reduced poverty. As per recent studies (FAO, 2006) SSA accounts for 10% of the population and 25% of the undernourished people in the developing world. It is unlikely that the MDG of halving the number of poor and hunger by 2015 would be achieved. The current pattern of agricultural development in Africa is therefore unsustainable. A large share of the population remains undernourished, and the degradation of land and ecosystems worsens food insecurity. Therefore easing the access of African farmers to improved crop varieties, fertilizers and where feasible irrigation deserves priority attention. Improved tillage and land management can also help halt land degradation.
- 35.** In cities, increasing per capita incomes, demographic shifts, urbanisation, smaller family units and other lifestyle changes have increased the demand for processed and imported food and packaging. These changes are having a major impact on the production and consumption of food, leading to significant structural changes in the food production systems and processing industry. From an SCP perspective, these structural changes need to take into account consumer concerns about food safety and quality issues and environmental concerns.



## **2.6.2 Energy production and consumption**

- 36.** Africa's energy sector is best understood as three distinct regions: North Africa, which is heavily reliant on oil and gas, followed by South Africa which depends on coal and the rest of sub-Saharan Africa, largely reliant on traditional biomass. Access to energy remains seriously deficient in sub-Saharan Africa. Compared with other regions, Africa has one of the lowest per capita energy consumption rates with heavy dependence on traditional biomass. However, certain regions such as South Africa and North Africa have experienced rapid growth in energy consumption that is somewhat similar to industrializing countries of Asia. Even within sub-Saharan Africa, modern energy consumption is relatively high in urban areas. In the long term (30-50 years), some African countries could experience the kind of rapid growth in energy consumption that is currently observed in industrializing countries of Asia resulting in significant adverse environmental impacts. The key challenge facing Africa is not to increase energy consumption per se, but to ensure access to cleaner energy services, preferably through energy efficiency and renewable energy thus promoting sustainable consumption. Africa, could, in a number of sectors, leapfrog directly from current traditional energy consumption patterns to sustainable energy options.
- 37.** Africa is relatively well endowed with energy resources and produces about 10% of the world's energy supply. However, with a population of 13% of the world's total, Africa consumes only 5.5% of the world energy, and it generates only 3.1% of the world's electricity (ECA, 2006). The per capita energy consumption of 0.5 tonnes of oil equivalent (TOE), far lower than the world average of 1.2 TOE per capita, makes the continent lag behind all others in energy use. Energy production tends to be costly, relying heavily on fossil fuels (about 80% of electricity generation), despite significant untapped hydro electricity and other renewable energy potential. Only about 7% of Africa's enormous hydro potential has been harnessed and based on the limited initiatives that have been undertaken to date, renewable energy technologies could contribute significantly to the development of the energy sector in Africa. Energy consumption in Africa is still largely dominated by combustible renewable resources (biomass, animal wastes etc) with 59% of the total (Figure 2.6). In some countries, biomass accounts for more than 80% of the total energy use.

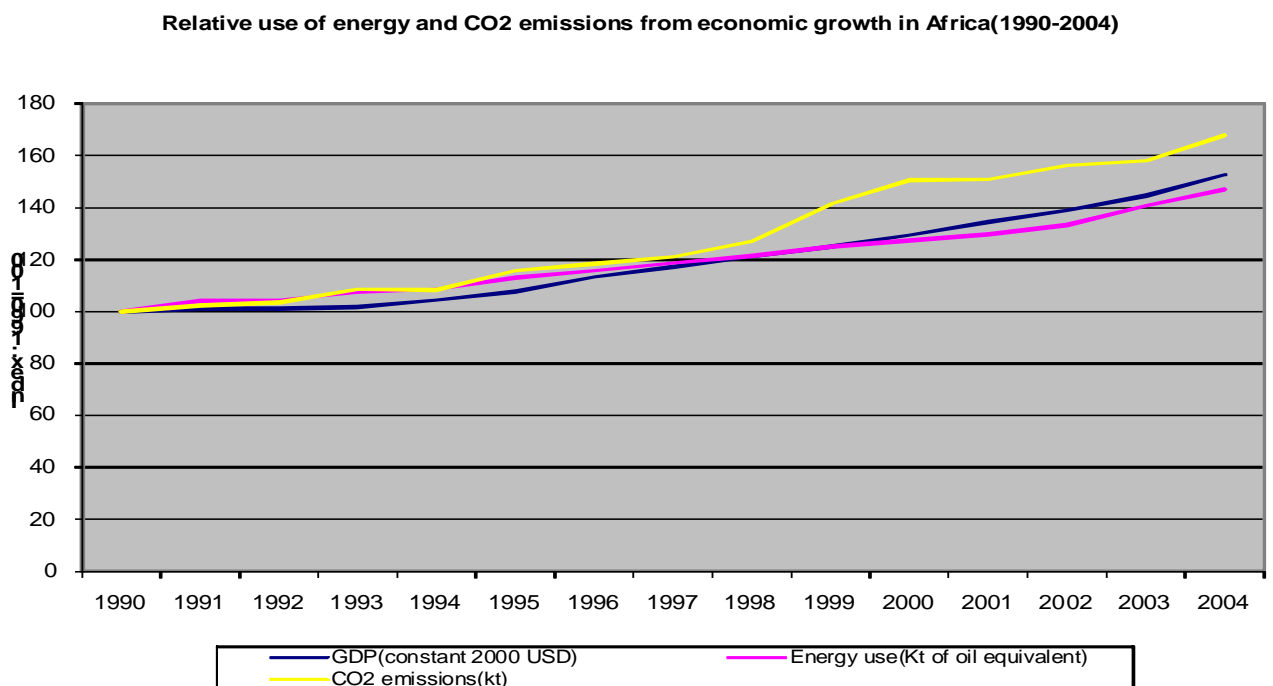


**Figure 2.6: Energy Consumption in Africa in 2005 (in tonnes of oil equivalent)**  
(IEA (2005))

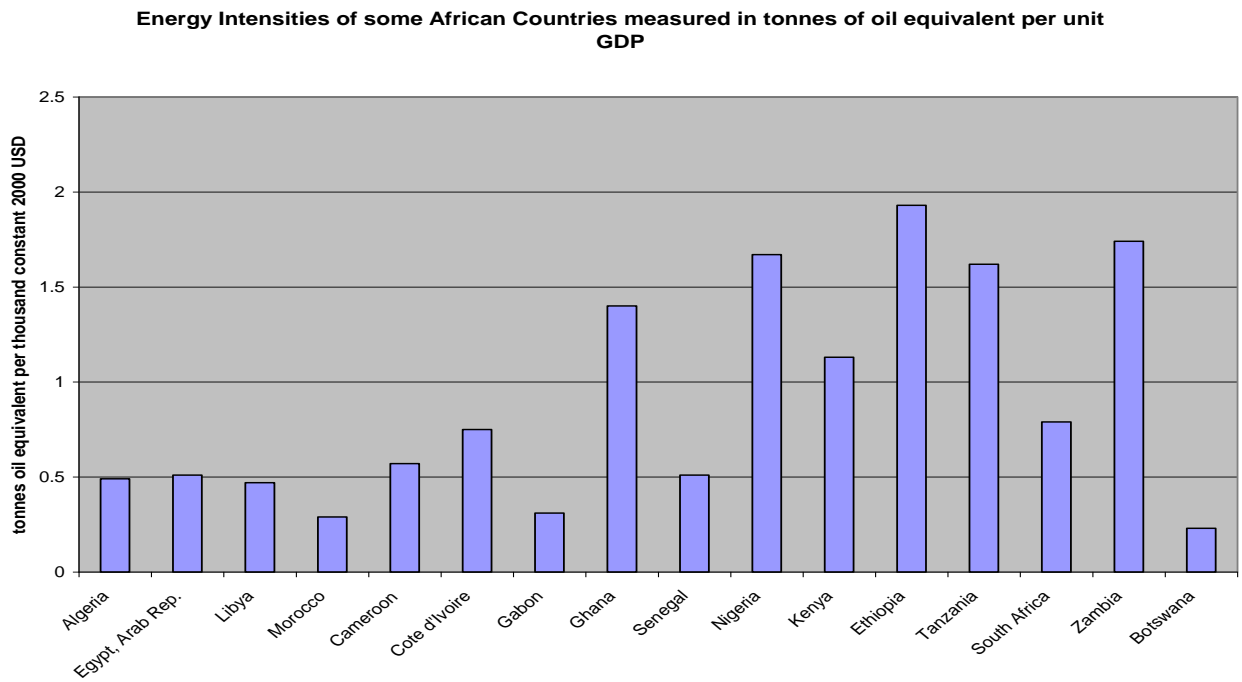
37. Access to energy remains seriously deficient in sub-Saharan Africa with more than 500 million people who do not have access to modern energy. The electricity access rate in the region as of 2005 was only 26% overall and only 8% for rural households (IEA, 2006). Within countries access to electricity tends to be higher in urban area and to increase with income. The cost of lighting with alternative energy sources takes substantial portions of income in the poorest households. Lack of access to modern energy results in air pollution, acute health problems and environmental problems linked to over-consumption or inadequate management of wood resources. There are serious negative impacts associated with this traditional biomass energy use, which range from indoor air pollution (Muchri and Gitonga, 2000) to deforestation.
38. Given the relatively low energy consumption on the continent, there is currently no relative de-coupling of energy use and CO<sub>2</sub> emissions from economic growth across Africa as a whole (Figure 2.7). Energy intensities (measured as tonnes of oil equivalent per unit GDP) vary widely across the region depending on the structure and energy efficiency of the economy (energy efficiency means here that the energy inputs are reduced for a given level of service or there are increased or enhanced services for a given amount of energy inputs) (Figure 2.8). Many countries have energy intensities

significantly greater than the European Union (EU), showing the potential for energy efficiency. Figure 2.9 shows the proportion of total energy use coming from fossil fuels for some selected countries. Fossil-fuel rich North African countries have low shares of renewable energy although the availability of renewable resources is also a key factor.

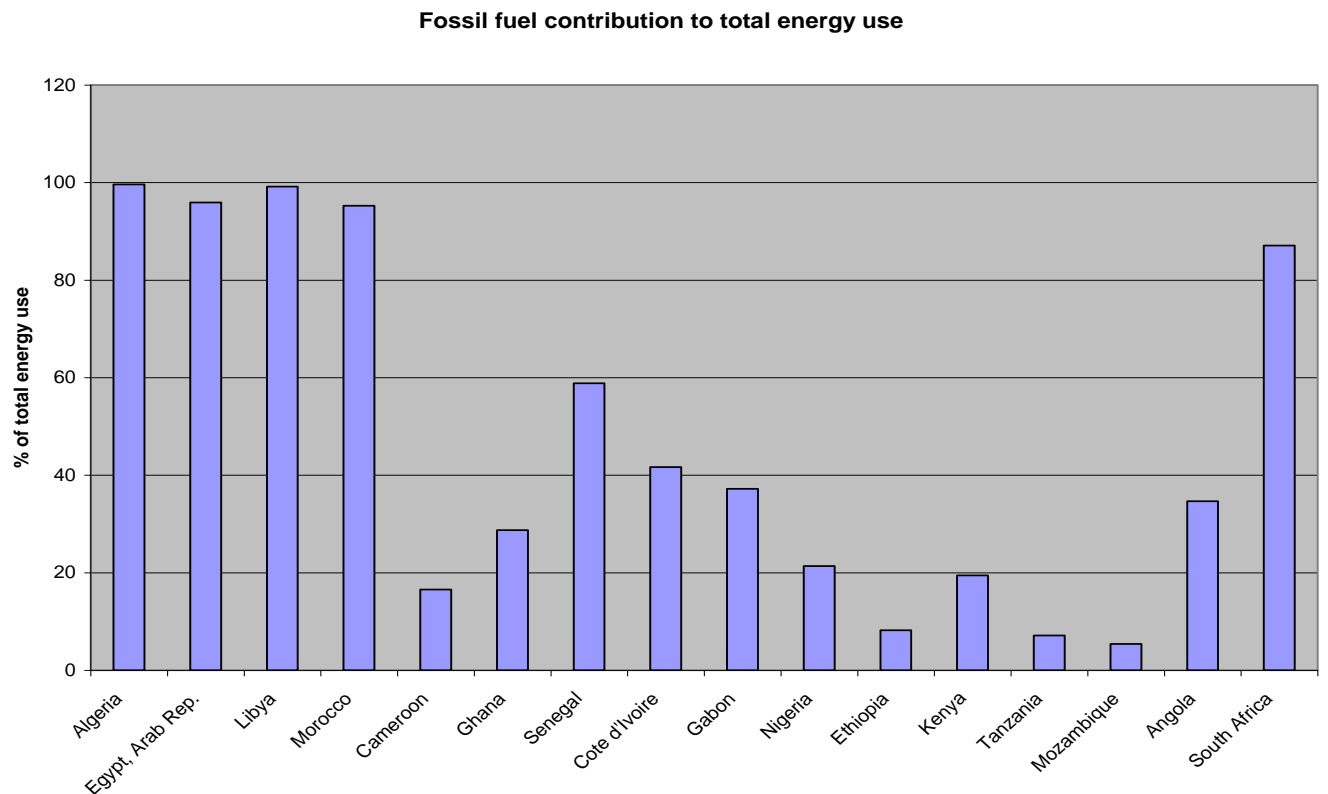
39. Africa contributes about 4% of total greenhouse gases. Most countries (except for the wealthier and fossil-fuel rich nations) have very low carbon dioxide (CO<sub>2</sub>) emissions per capita due to low energy intensities, lower GDPs and high levels of biomass energy use (Figure 2.10).



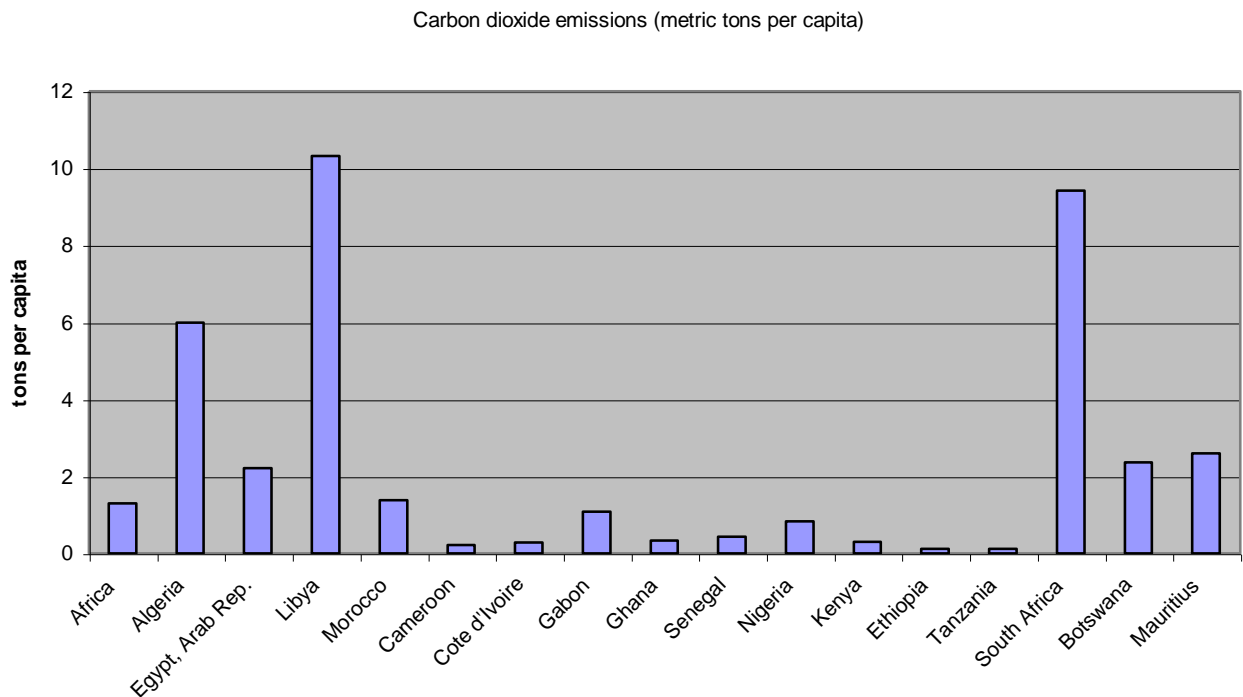
**Figure 2.7: Relative use of energy and CO<sub>2</sub> emissions from economic growth in Africa (1990-2004)**



**Figure 2.8: Energy Intensities of some African countries in tonnes of oil equivalent per unit GDP**



**Figure 2.9: Fossil fuel contribution to total energy use.**

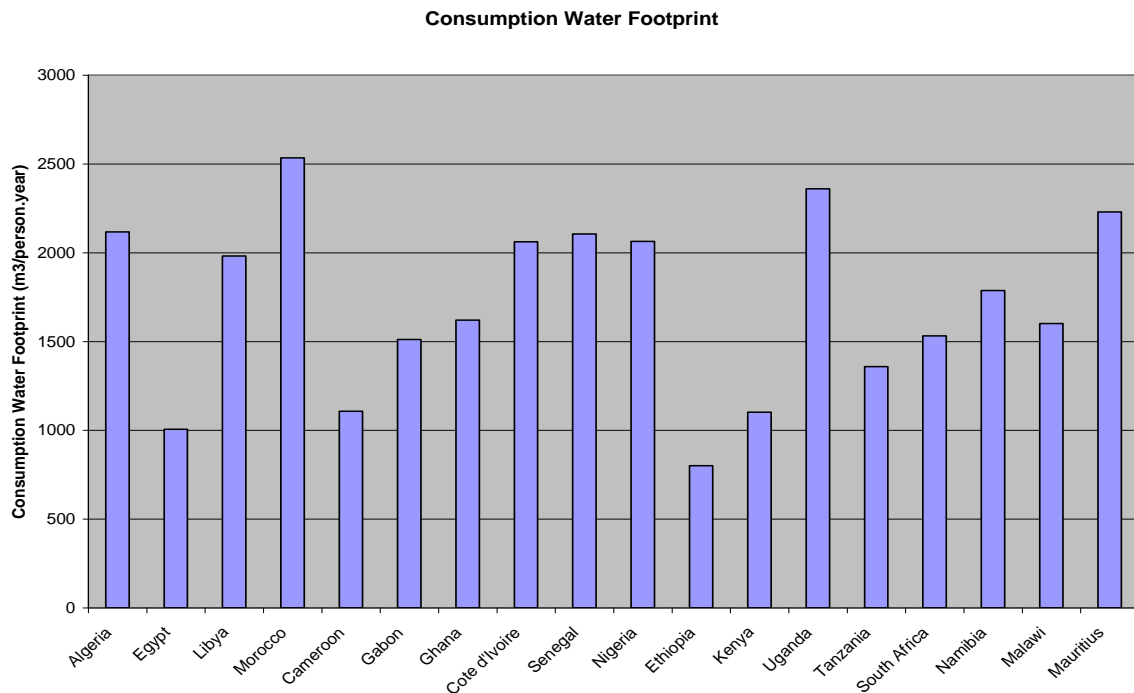


**Figure 2.10: Carbon dioxide emissions for Africa and some selected African countries**

### 2.6.3 Water supply and sanitation

40. Africa is endowed with abundant water resources, which account for about 10% of global freshwater endowments (UNDESA, 2008). Africa is relatively poor in groundwater, which represents only 15% of its water resources. Freshwater resources across Africa are unevenly distributed. Although some African countries have high annual averages water per capita, many others already or soon will face water stress ( $1700 \text{ m}^3$  or less per person annually) or scarcity conditions ( $1000 \text{ m}^3$  or less per person annually). Currently 14 countries in Africa, mostly located in the Sahel region and the Horn of Africa, are subject to water stress or water scarcity. A further 11 counties will join them in the next 25 years. (UNEP, African Environment Outlook, 2007)). As a result of climate change and variability, population growth, environmental degradation and resource mismanagement, access to freshwater is worsening in the region. Increased water scarcity in the future in many countries of the region implies a need for efficient management of shared water resources. The number of people affected by absolute and seasonal shortages is projected to increase steeply because of climate

change and increasing demands. Figure 2.11 shows the consumption water footprints of some selected African Countries. It represents the use of national water resources for production of goods and services that are consumed domestically (internal water footprint) and the use of water in other countries to produce goods that are imported for consumption (external water footprint). Across Africa, 93% of the water footprint falls inside country borders.



**Figure 2.11: Consumption Water Footprints of some selected African Countries (Global Footprint Network, 2008)**

- 41.** In Africa, access to Water Supply and Sanitation (WSS) is very low. Only about 58% of the sub-Saharan population has access to piped water supply and 37% has access to improved sanitation. In contrast, North Africa is on track to meet the Target on drinking water and adequate sanitation (ECA, 2006). To achieve the MDGs for WSS in sub-Saharan Africa, it is estimated that the number of persons served must double from 350 million in 2000 to 700 million by 2015 and expenditure of at least US\$ 2 billion each year up to 2015 is necessary. There are disparities between urban and rural areas, as well as high income and slum areas in cities.

**42.** Over 70% of the urban population in sub-Saharan Africa are slum dwellers (UN-Habitat). The urban poor depend heavily on rising agricultural productivity for food security. Agricultural water reuse in urban and peri-urban areas is a key opportunity. Except in North Africa and in Namibia, Zambia and South Africa, wastewater reuse is still in its infancy in Africa. Wastewater reuse is particularly critical in arid and semi-arid countries. Irrigation with raw wastewater is a widespread practice in North Africa where it is usually used when no alternative water source is available. This practice can bring considerable benefits, yet, it is associated with serious health and environmental risks. Most of the wastewater reuse standards are based either on United States Environmental Protection Agency (USEPA) or World Health Organization (WHO) guidelines of 2006. However, most of the time, these standards are not reinforced in the countries of the region. Although unregulated irrigation with wastewater does persist in some countries of this region, especially nearer smaller urban centres, the trend is towards regulated reuse of treated wastewater – as far as available capital resources allow. Windhoek, Namibia is the location for a successful project implementing treated wastewater reuse.

#### **2.6.4 Industrial Production**

**43.** Africa lags behind other regions in almost all its industry-related indices. The contribution of manufacturing output to total national income is generally low, with the share of manufacturing value added (MVA) in GDP being at an average value of only about 9% (ECA, 2005b).

**44.** Environmental issues in the industry sector include a whole spectrum of concerns, from control of air emissions and wastewater discharges, improving efficiency in the use of natural resources and energy, a switch to less polluting fuels, proper management and prevention of waste, to management and control of hazardous and toxic substances. The topic is all the more important in view of the significant role that industry has to play in African economies and the fact that pollution and resource use intensities are typically much higher in the industry sector than in the agriculture and service sectors. Notable exceptions are transport and municipal services. Detailed data and information on emissions, waste generation and resource use by industrial sources are a necessary

precondition for designing and implementing effective industry-related environmental policies. However such data and information are not readily available in African countries. Environmental inspectorates, typically the body responsible for enforcing related legislation, collect actual or estimated data on emissions from industrial companies. It appears, however, that such data are not systematically compiled at nationwide level and apparently there are no efforts to use this information for policy making. Given the poor data situation, it was not possible to prepare a comprehensive review of trends in industrial pollution and resource use in Africa.

- 45.** Small and Medium Enterprises (SMEs) dominate and play a critical role in national economies of African countries. Key industry/manufacturing sub-sectors vary greatly in diversity, across countries (size of the economy) and in their relative importance to the economies of the countries. Key ones in the “giant” South African economy are Mining, Chemicals, Automobiles, Food and Agro-processing, Textiles, Tourism, Paper and Packaging, Metal Finishing, Electronics, Engineering,, Power generation, Building and construction, Services and Fishing. The industrial sector in other countries is made up largely of micro, small and medium enterprises (MSMEs). Most activities in the sector concentrate on manufacturing simple consumer goods such as sugar, beer, soap/detergents, vegetable oils, tobacco, textiles, cement, furniture and wood-based products. Others include mining & quarrying, handicraft, construction, electricity and water, leather/tanning, chemical, metallurgy, electrical/electronics, rubber, paints, batteries, paper industries. There is, however, lack of proper records on the actual numbers of these enterprises, particularly the micro enterprises owing to their nature and distribution around the countries.
- 46.** There are growing cases of industrial pollution around the capital cities and other key economically important towns in the countries. Examples exist to demonstrate the severity of unsustainable production processes. For example, over 90% of industries in Ethiopia discharge effluents untreated in water bodies and open land. Similarly, 35% of all factories in Maputo, Mozambique are chemical industries whose effluents are discharged untreated into the Matola River, ending up in the Indian Ocean. Another 34% of wastewater in urban areas in Zimbabwe emanates from local industries. A peculiar observation of concern is that about 97% of all Moroccan industrial water



demand goes to chemical industries, of which 89% is released as untreated effluent into local water bodies (UNEP, 2004).

- 47.** Positive performance in industrial growth in a few countries and an increase in foreign direct investment in African industry indicates a potential for industrial take-off. The challenge is to ensure that environmental best practices are incorporated at these early stages of industrialization whenever manufacturing investments are being considered. It is to be noted that, while the overall level of industrial pollution is still low because of Africa's low level of industrialization, the environmental impact intensity in relation to the level of industrialization is among the highest in the world.
- 48.** Although under-explored, Africa hosts about 30% of the planet's mineral reserves, including 40% of gold, 60% cobalt and 90% of the world's Platinum Group Metals (PGM) reserves - making it a truly strategic producer of these precious metals. South Africa, Ghana, Zimbabwe, Tanzania, Zambia and the Democratic Republic of Congo (DRC) dominate the African Mining industry, whilst countries such as Angola, Sierra Leone, Namibia, Zambia and Botswana rely heavily on the mining industry as a major foreign currency earner. The region is a mining giant and yet its industrial base is insignificant on the global market, and the majority of its people live in growing poverty. There is a need for Africa to move from being a major exporter of primary resources to strengthening its industrial and manufacturing base. Coal resources are concentrated in Southern Africa, with South Africa accounting for 5 percent of proven world coal resources and 98 percent of Africa's output.

#### **2.6.5 Human settlements development**

- 49.** Improvements are needed in infrastructure and sustainable human settlement patterns in Africa, in order to reduce congestion and pollution. Africa is the fastest urbanizing region in the world. Rural population is growing at a rate of 2.5% per year, while the urban population is experiencing 5 to 10% growth rate per year (ECA/UN-Habitat, 2003). Africa's urban population was 373 million in 2007 and will reach 760 million in 2030 (UN Habitat, 2008). Increasing numbers of the poor will be city dwellers and SSA follows South and East Asia in having the third largest number of slum dwellers. The

urban population growth is not absorbed by the largest cities but by the intermediate cities (towns less than 500,000 inhabitants) where two thirds of all African urban growth is occurring. This swift urban growth means that governments should strengthen the governance capacities of intermediate and smaller cities so as to be prepared for the rapid increase in new and additional demand for urban spatial planning, urban housing, urban services and urban livelihoods. The larger African cities will absorb the remaining one-third of the continent-wide urban growth. Africa's three giant urban agglomerations, Cairo (11.9 million), Kinshasa (7.8 million) and Lagos (9.6 million) continue to rise rapidly in their ranking among the world's largest metropolitan cities.

- 50.** Urbanization presents both a challenge and opportunity. It is a challenge in that providing additional millions of people with adequate housing, water and sanitation, transportation, waste management and other needs will require vast investment, skilled management and strong leadership. In addition the concentration of people increases the risk of diseases, pollution and disaster. On the other hand, the concentration of people will also facilitate the provision of education, health care, transportation and other social services. Urbanization also tends to conserve energy and natural resources, in as much as people living in densely populated cities use substantially less land, energy and water per person than people with comparable incomes in sub urban or rural areas.
- 51.** According to UN-Habitat (2008), in sub-Saharan Africa, 62% of urban dwellers (about 175 million people) live in slums. They constitute 20% of the global slum population. The slum population is particularly high in countries such as Ethiopia, Angola, Central African Republic, Chad, Guinea-Bissau, Madagascar, Mozambique, Niger, Sierra Leone and Sudan where slum households are likely to lack clean water, improved sanitation, durable housing or sufficient living space. In many cases slum dwellers in these countries not only suffer from one shelter deprivation, but from three or more. In a second group of countries-Benin, Burkina Faso, Burundi, Cameroon, Gabon, Kenya, Ghana and Senegal - have large slum concentrations but fewer instances of multiple shelter deprivations. Most countries suffer from only one shelter deprivation. This means that a simple programme tackling the lack of improved water, sanitation or housing can contribute significantly to improving the lives of slum dwellers. For countries such as Benin, Burkina Faso, Cameroon and Ghana, a sanitation programme

would be enough to significantly improve the lives of most slum dwellers. In the last five years, some countries in sub-Saharan Africa have been more successful than others in reducing the number and proportion of slum dwellers. The Northern Africa region has the lowest concentration of slums in Africa, with slum households comprising 15% of all urban households. In this region, 9 out of 10 slum households suffer from only one shelter deprivation.

- 52.** Transportation services contribute to development and their improvement will be essential for Africa to achieve SD and the MDGs. In many African countries transport access rates and network quality are low by any standard. Only 12% of sub-Saharan African roads are paved, compared to 23% in Latin America and the Caribbean for example. Less than a third of Africa's 2 million km of roads are asphalted with a low density of 6.84 km per 100 square km, compared to 12 km in Latin America and 18 km in Asia (UNDESA, 2008a). Urbanization and increasing motorization in sub-Saharan Africa have resulted in a high level of degradation of the air quality particularly in the large cities. Provision of good transportation services and infrastructure constitutes a necessary precondition for African economic growth. A transport system that supports sustainable development is one in which transport is used in a way that minimises demands on non-renewable resources, e.g. fossil fuels and metals. It also minimises adverse impacts on human health and the environment, e.g. pollution and contributions to climate change, or waste generation. Likewise, it provides for affordable mobility to allow access to services, jobs and education — as we travel more and farther both for work and leisure. In the context of efficiency and environmental impacts of transport, there is clearly a hierarchy of 'desirable' kinds of transport. The most energy-efficient and affordable modes are, of course, walking and cycling as they entail virtually no use of fossil fuels or other non-renewable resources, and are, in this respect, the most desirable means of transport for short journeys. Some types of mechanised transport, most obviously water transport and to a lesser extent rail, are, generally speaking, significantly more energy-efficient than motorised road transport or aviation. However, within each mode there is a considerable variation between the energy efficiency of different types of vehicles. For example, large public transport vehicles tend to be more energy-efficient per passenger kilometre than small individual vehicles, provided always that they are well utilised. Electric trains usually are appreciably more fuel-

efficient than diesel trains, while diesel cars and trucks tend to be more efficient than petrol ones. There is an enormous variation between vehicles according to size, age, and type of construction. Newer vehicles tend to be more energy-efficient than older ones, but often this benefit is overshadowed by their greater size, weight or power and they might actually use more fuel than the older cars. Maximising the efficiency of transport use is also important for moving towards SCP. As noted above, there is a hierarchy of transport modes, based on their energy-efficiency. But utilisation rates are also important. For example, public transport vehicles do not make efficient use of resources if they carry few passengers. The passenger car is relatively efficient if it carries four or more passengers, but this is not usually the case. Efficient utilisation also implies patterns of transport that are themselves efficient. For instance, it makes little sense in resource terms to transport materials or goods over long distances when similar products are available locally, even if it makes economic sense to do so. Efficient passenger transport also implies land-use patterns that minimise the need to travel long distances for goods, services, jobs and the use of public transport. This includes maintaining densely-populated and thriving urban centres, well served by public transport, while avoiding urban sprawl and out-of-town developments. Africa to consider the mistakes made by continents like Europe which indicate that trying to build your way out of the problem by constructing more and more roads can be expensive and delivers only short term benefits.

- 53.** The problem of solid waste management is a growing source of concern in African urban centres driven by population growth, urbanization, industrialization and rising living standards and is identified as one of the major challenges in the promotion of sustainable consumption and production in the region. Industrial, electronic and medical waste, some of which is hazardous, is also increasing rapidly in many countries. African cities have not been able to set up adequate system for the collection of municipal and industrial waste due to their poor infrastructure base, limited resources and lack of proper urban management. The solid waste generation of selected cities in Africa ranged from 0.3 to 1.9 kg per person per day (Achankeng, 2003). Data specific to African cities are generally not available, though some regional evaluations have been made. Although waste characterization is a key component in any Municipal Solid Waste Management (MSWM) scheme, such data are not commonly compiled in cities

across Africa. The limited available data suggests that the MSW stream in the typical African city at point of disposal is high in putrescible organic matter. However it is low in % of commercially recyclable components and too low in heating value for energy recovery by incineration. There are few formal systems of materials recovery through the public and private sectors in Africa. Instead, in most parts of Africa, materials recovery including source separation and recycling takes place in the informal sector. With few official statistics on MSW generation and recycling, it is difficult to arrive at an overall rate of waste recycling in Africa. Obtaining these data is vital to the design of well integrated ISWM systems. Most major cities in Africa have an organized municipal waste collection system. Collection coverages across the continent range from 20% to 80% with a median range of 40% to 50% (Cal Recovery, Inc and UNEP IETC (2005)). More than half of municipal waste therefore never enters an official or unofficial collection stream and waste that is collected is often disposed of with no control, dumped outside of urban areas or in outlying districts. Only 5% of waste in African urban areas is collected and recycled by the waste collectors that are often working illegally in the informal economy (Lavergne and Gabert (2005)).

- 54.** Most disposal sites in Africa are simply open dumps-recently however some countries have moved towards improved landfill practice. Even though the organic content of the MSW in the typical African city may exceed 70% (wet basis), centralized composting, anaerobic digestion and gas recovery are not significant components of African MSW management practice. Further investigation of their market potential may prove this to be an overlooked opportunity. Backyard composting is limited. Some NGO provide the practice in several countries but it does not have a significant impact on MSWM at the city level. Incineration and Waste to Energy remain little used options for MSWM in Africa. High costs, limited infrastructure and the composition of the waste stream suggest that incineration is an inappropriate technology for most African cities.
  
- 55.** For the most part in Africa, services are not available for the separate handling of special wastes such as household hazardous wastes, construction and demolition wastes, medical and infectious wastes, tires, sewage sludge or chemical and pharmaceutical wastes. Most special wastes are disposed of in open dumps along with regular MSW. For some special wastes, some items are recycled –for example lead-acid batteries,

tires, used oil and C&D wastes. Cities need more financial and technical resources to provide adequate municipal solid waste collection and disposal services. As informal waste collectors are at the heart of municipal waste collection in many countries, improved systems should as far as possible seek to build on this foundation, while protecting workers from hazardous working conditions.

### **2.6.6 Tourism development**

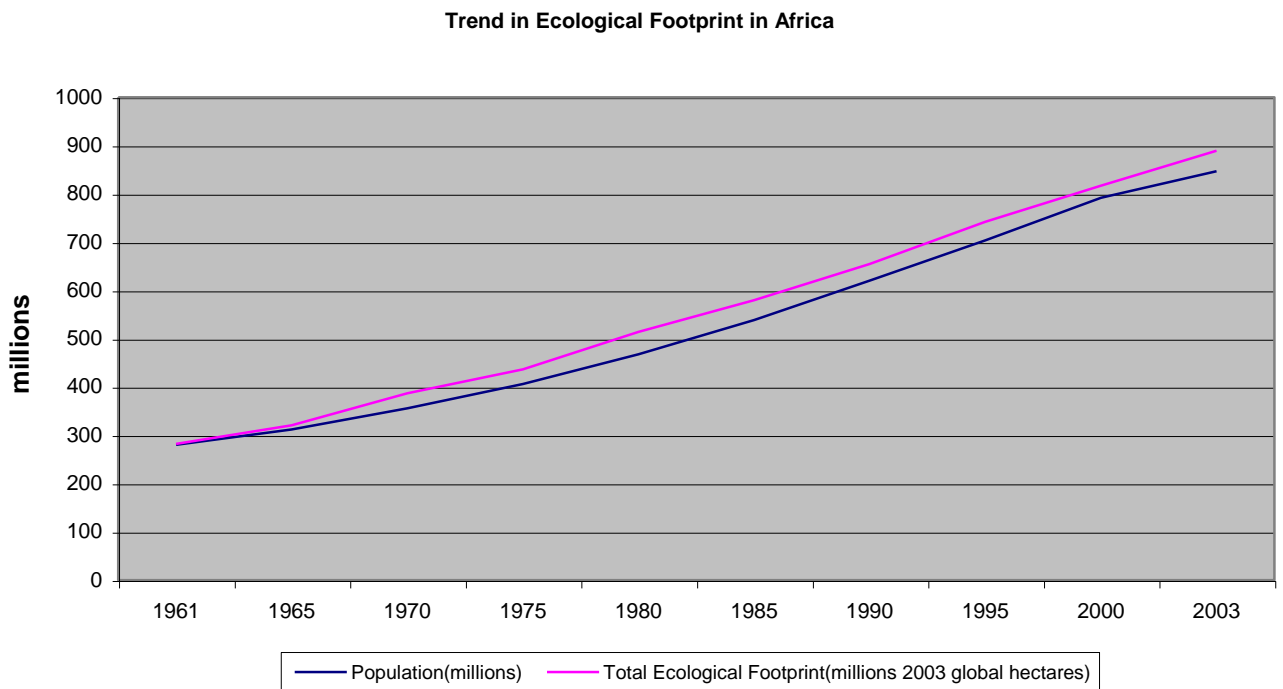
- 56.** Africa has numerous tourist attractions ranging from wildlife to cultural heritage. Since 1990, Africa's share in the world's total rose one percentage point, from 3.4 to 4.4 percent in 2004. With slightly over 33 million international tourist arrivals estimated in 2004, Africa recorded an increase of eight percent over 2003. Many African governments have identified the potential of international tourism, which involved 37.3 million tourists and brought about \$21.7 billion in revenue to African countries in 2005(WTO Tourism Highlights, 2007 ([www.unwto.org/facts](http://www.unwto.org/facts))). International tourism in Africa is characterized by a strong polarization. Four countries alone-South Africa, Morocco, Tunisia and Egypt account for about 60% of all arrivals in the region. Approximately 95% of all arrivals are concentrated in 20 of the 53 African countries. Roughly 60% of international tourists who visit Africa are leisure tourists, 15% are business tourists and 25% come for other purposes. The main tourism products in Africa are resort tourism led by North Africa and the Indian Ocean islands, adventure tourism led by Eastern and Southern Africa and Business tourism. Eco-tourism is the fastest growing tourism product in the world and Africa, for its natural endowments constitutes an obvious destination as in countries like Uganda, Rwanda, Tanzania and Kenya.
- 57.** The ecological footprint of tourism activity is significant and the tourism industry and its associated infrastructure tend to be concentrated in biodiversity hotspots. On the other hand, tourism can foster environmental preservation, especially if it is eco-tourism. The JPOI emphasizes in paragraph 70 the role tourism can play in the protection of wildlife and the sustainable development of local communities living in areas of great tourism potential. Through the generation of local employment and equitable schemes for rewarding habitat conservation and wildlife protection, these

communities can share in the benefits from wildlife-related tourism. New forms of sustainable tourism, such as community-based tourism, have gradually expanded. Tourists can immerse themselves in the day-to-day lives of local and indigenous people while helping them to preserve their environmental and cultural heritage. The promotion of community-based tourism should be an integral part of a larger national strategy that encompasses other dimensions of sustainability, such as education and public health improvements.

- 58.** The tourism industry in Africa is characterized by a large number of small and medium-sized tourism enterprises (SMEs) that in many cases lack the financial and human resources necessary to provide a qualitative product and integrate sustainable tourism principles. On the other hand, mainstream international hotel chains are increasingly making efforts to reduce their environmental impacts. Many travel and tourism companies have joined together in the International Tourism Partnership to promote responsible tourism. In 2007, the Partnership launched the Going Green standards for sustainable hotels. A variety of eco-labels and certification schemes have been developed for tourist sites and hotels. The Blue Flag label for example which have participating national organizations in Africa has been awarded to some beaches and marinas.

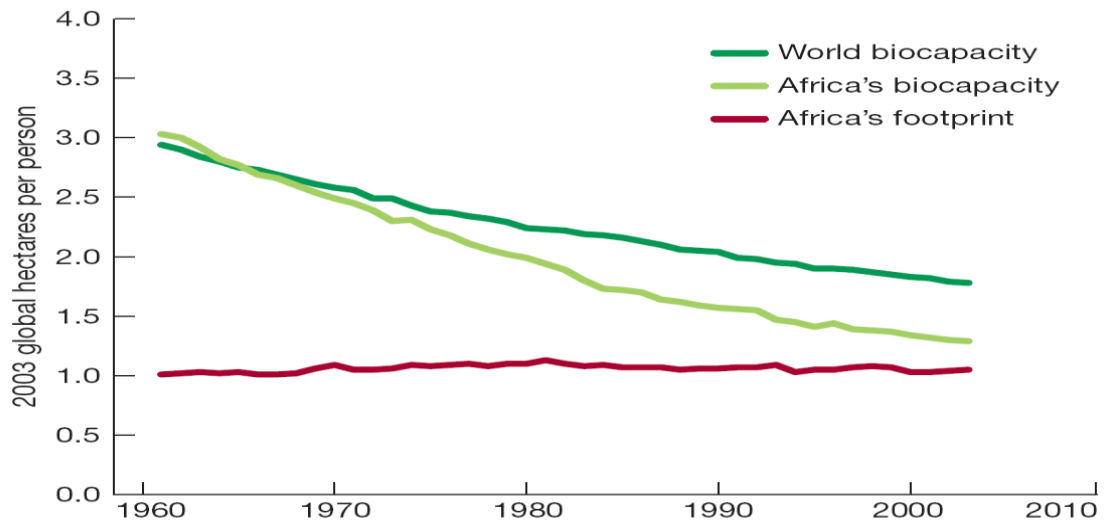
## **2.7 Ecological Footprints**

- 59.** An ecological footprint provides a useful indicator of the degree to which a country's consumption is sustainable. Resources consumed to meet the country's demand for food, energy and goods are translated into an equivalent land area in hectares per capita to provide the resources as to absorb emissions such as CO<sub>2</sub> without permanent change. These can then be compared to the total global available bio-capacity per person. Countries whose footprint significantly exceeds the global available bio-capacity (1.8 ha per person in 2003) can be considered to have unsustainable consumption and production patterns.



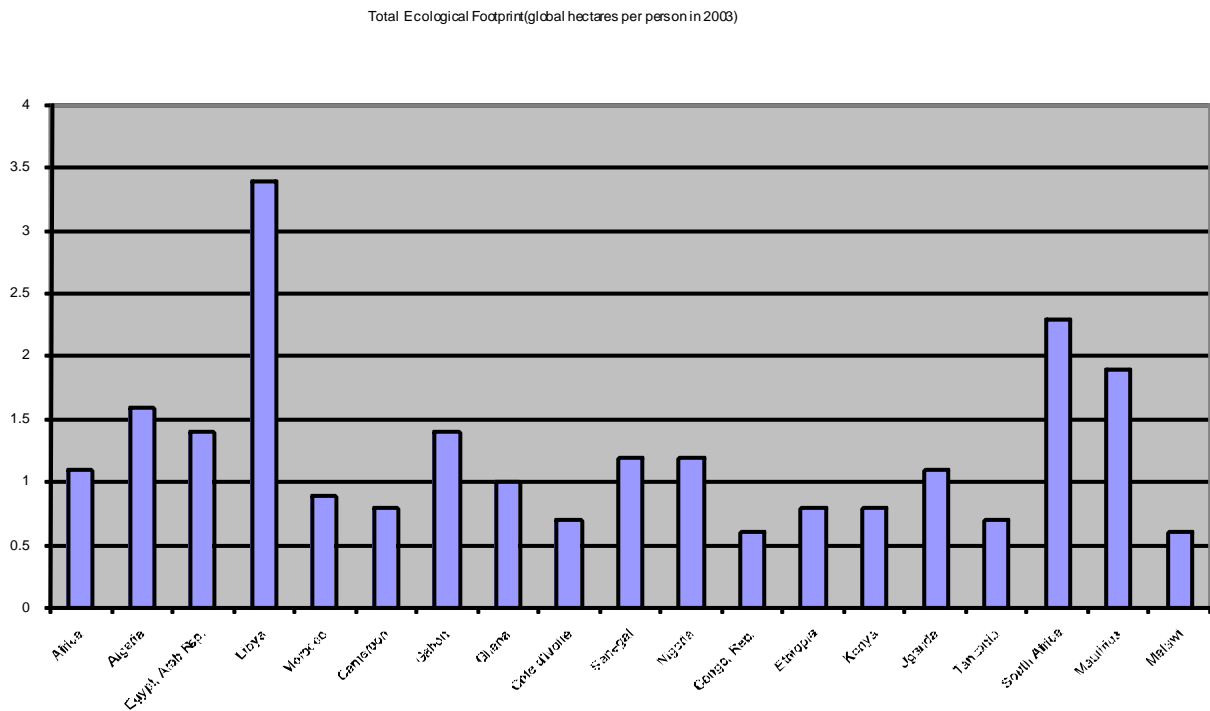
**Figure 2.12: Trends in Population and Ecological Footprint of Africa**

**AFRICA'S FOOTPRINT AND BIOCAPACITY, AND WORLD BIOCAPACITY, PER CAPITA 1961–2003**



**Figure 2.13: Africa's Footprint and Bio capacity and World Bio Capacity, per capita 1961-2003**





**Figure 2.14: Ecological Footprints of some selected African countries**

60. The “Africa-Ecological Footprint and Human Well-being” report (Global Footprint Network, 2008) was launched at the African Ministerial Conference on Environment (AMCEN) meeting in Johannesburg in 2008. The report shows that the impact of the average African to be low by western standards. Compared to the rest of the world, the average African’s footprint is small (1.1 global hectares)-for many too small even to meet basic needs. In 2003 Africa had 13 per cent of the world’s population but contributed only 6% of the global footprint. The trend in population and ecological footprint of Africa is shown in Figure 2.12. Data on the ecological footprint for 2003 indicated that, for example, the eco-footprint for Kenya, Cameroon and Ethiopia was 0.8 global ha/cap (Figure 2.14). This can be compared to the ecological footprint of the United States which was at 9.6. But the report also reveals that a growing number of African countries are now depleting their natural resources faster than they can be replaced. Africa’s bio-capacity is 1.3 global hectares per person, slightly more than what Africans use, but 28% less than the world’s average of 1.8 global hectares available per person (Figure 2.13). While Africa still has more bio-capacity than it uses, this margin is shrinking, largely due to population growth. If current trends

continue, Africa will soon be facing an ecological deficit, with demand exceeding the continent's supply. Africa's lower than world average bio-capacity per person and rapid population growth could increasingly thwart human development achievements. Several African countries already have a footprint that is larger than their countries' bio-capacity per capita meaning that a growing number of African countries are depleting their natural resources — or will shortly be doing so — faster than they can be replaced. The list is topped by countries such as Egypt, Libya or Algeria, whose people are living well beyond their ecological means. Further down the list, other nine countries (Morocco, Tunisia, Ethiopia, Kenya, Uganda, Senegal, Nigeria, South Africa and Zimbabwe) are using resources beyond their capacity.

61. About 16.8 percent of global forest cover (650 million ha) is found in Africa, with the Congo basin home to the second largest contiguous block of tropical rainforest in the world. Forests play an important economic role in many countries by providing ecosystem services for resident populations as well as being a source of food and other non-timber products. The forest sector accounts for 6% of GDP on the African continent, which is the highest rate in the world (UNDESA, 2008). Most rural households rely on wood fuel to cover their energy needs in sub-Saharan Africa. Africa is undergoing a severe process of deforestation. From 1990 to 2005, deforestation took place at a rate of 0.7% per year versus 0.2% at the global level (UNDESA, 2008). Africa's forests are under threat across the continent from a number of factors. The continent accounted for 64 percent of the global area burned by wildfires in 2000 (FAO, 2007). Agricultural expansion and high population growth rates are also exerting great pressures on forests. It is estimated that 60 percent of the tropical forest areas cleared in Africa as a whole between 1990 and 2000 were converted to permanent agricultural smallholdings.

## **2.8 SCP perspective for African countries**

62. In every society, production and consumption and investment patterns should be managed with consideration to environmental, economic and social elements of sustainability. SCP provides such an integrated approach to policy making, requiring close collaboration among different sectors and a wide participation of stakeholders.

The African region faces very different SCP challenges than those faced by developed countries. In the latter, the focus of current and future SCP action is on the environment pillar of sustainability-improving efficiency of production and using economic incentives to orient consumption towards less pressure intensive goods and services. In contrast, in much of Africa there is a clear need to address simultaneously the environment, economic and social pillars of sustainability. A large segment of the population lives in poverty and do not have access to basic needs, such as clean water, energy etc and adequate nutrition levels. The main challenge will have to satisfy the basic needs of the population. But at the same time, the environmental pillar of sustainability must be addressed.

- 63.** SCP has the potential to provide a valuable contribution to poverty alleviation in Africa. This contribution could be made through changes in the areas of access to sustainable energy sources, energy efficiency, waste management, water efficiency and agriculture. It offers new opportunities such as the creation of new markets, job generations (e.g. markets for organic food, fair trade, sustainable housing and renewable energy) and the improvement of natural resources. SCP can contribute to the achievement of the UN MDGs in Africa through increased utilization of opportunities of SCP for poverty reduction and wealth creation in Africa.
- 64.** Moving towards more SCP patterns requires a decoupling between economic growth, on the one hand and resource and energy use and their associated environmental impacts, on the other. In Africa a number of trends can affect any potential decoupling. With an increasing dominance of the service sector in some economies, this has potentially a positive decoupling effect because services generally tend to have lower energy and material use per unit of output than industry and agriculture. Notable exceptions to this rule are transport services and provision of water and sanitation which have high energy intensities. A second trend is improvement in efficiency of the industrial sector which can have a positive decoupling effect. However the rise of a consumer class in urban city areas and the shifting of industry from manufacturing and light industries to the exploitation and processing of fossil fuels and minerals may be pulling in the other direction.

**65.** Some African countries already have a footprint that is larger than their countries' bio-capacity per capita. Economic growth will further increase ecological footprints in the futures and achieving sustainability will require an absolute decoupling of resource use and impacts related to economic growth. The on-going economic and social restructuring in Africa offers a unique opportunity to establish more resource efficient SCP patterns. There are many opportunities to "leapfrog" towards more SCP patterns before consumption-driven impacts reach the levels observed in developed countries. SCP strategies applied now will safeguard against unsustainable patterns of consumption and production in the future. Whereas in some countries much of the focus for SCP needs to address impacts arising from high and increasing levels of consumption, SCP policy and action in most African countries may need to be more weighted towards improving efficiencies of agricultural and industrial production, infrastructures and municipal services. National differences give varying priorities for future SCP action and require the use of a range of SCP policy instruments. However there also many similarities in the problems faced by African countries and this creates opportunities for the exchange and transfer of experiences among countries. These are identified and presented in the next chapters.

### **3. REVIEW OF PROGRESS AND ACHIEVEMENTS MADE IN SCP IN AFRICA**

66. The main commitments on SCP as agreed upon in A21, PFIA21 and the JPOI can be summarized as follows:

- a. Encourage and promote the development of a 10-YFP in support of regional and national initiatives to accelerate the shift towards SCP
- b. Increase investment in cleaner production and eco-efficiency in all countries
- c. Integrate the issue of production and consumption patterns into sustainable development policies, programmes and strategies, including, where applicable, into poverty reduction strategies
- d. Strengthen the contribution of industrial development to poverty eradication and sustainable natural resource management
- e. Enhance corporate environmental and social responsibility and accountability
- f. Encourage relevant authorities at all levels to take sustainable development considerations in decision making, including investment in infrastructure, planning, business development and public procurement
- g. Promote energy for sustainable development including the diversification of energy supply, diffusion of environmentally sound technologies, improving energy efficiency and increasing the use of renewable energy resources.
- h. Promote an integrated approach to policy-making at the national, regional and local levels for transport services and systems to promote sustainable development, including policies and planning for land use, infrastructure, public transport systems and goods delivery network
- i. Prevent and minimize waste and maximize reuse, recycling and use of environmentally friendly alternative materials
- j. Promote sustainable tourism development
- k. Renew the commitment to sound management of chemicals throughout their life cycle and of hazardous wastes for sustainable development

- l. Encourage the development and strengthening of awareness and educational programmes to promote sustainable consumption and production patterns
- m. Undertake research and development of core indicators on consumption and production

Concrete actions taken and progress made towards achieving SCP in the areas listed here under are highlighted.

### **3.1 The Marrakech Process and the Ten-Year Framework of Programmes on SCP**

**67.** The Marrakech Process was launched in 2003 responding to the call of the JPOI. The Marrakech Process is a global multi-stakeholder process to support the implementation of Sustainable Consumption and Production (SCP) and the elaboration of a 10-Year Framework of Programmes on SCP (10YFP). UNEP and UN DESA are serving as the Secretariat to coordinate this global process, with an active participation of national governments, development agencies, UN –Inter Agency Network, and major groups – thus far represented by business and industry, civil society, trade unions, and other stakeholders. The first meeting devoted to developing the 10-YFP took place in Marrakech, Morocco in June 2003, hence the name. The Marrakech Process is developing inputs to the 10YFP in a participatory and bottom up approach by the following phases.<sup>1</sup>

- a) Organising regional consultations to promote awareness and identify priorities and needs for SCP;
- b) Building regional programmes and implementation mechanisms with regional and national ownership, to be endorsed by the relevant regional institutions;
- c) Implementing concrete projects and programmes on the regional, national and local levels to develop and/or improve SCP tools and methodologies, with the Task Forces as the main implementation mechanisms;

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<sup>1</sup> For more information on the mechanisms of the Marrakech Process see: <http://esa.un.org/marrakechprocess> and <http://www.unep.fr/pc/sustain/10year/home.htm>

- d) Evaluating progress, exchanging information and encouraging international cooperation and coordination, through the international review meetings.
- e) Securing and incorporating multi-stakeholder inputs on the elaboration of a 10YFP to be submitted as input to the CSD18 and CSD19.

### **Accomplishment so far**

In its first five years, the Marrakech Process has promoted the development of regional SCP programmes or action plans in Africa and Latin America with the institutional support of the regional intergovernmental organizations as well as in the European Union.<sup>1</sup> These programmes or action plans address issues that are highly relevant to the energy, food, water, and climate crises. The West Asian, Asia-Pacific and North American regions have also engaged in similar processes in 2008.

Seven Marrakech Task Forces have been created that support the development of SCP tools, capacity building and the implementation of SCP projects on the following specific SCP-related issues: cooperation with Africa, sustainable products, sustainable lifestyles, sustainable public procurement, sustainable tourism, sustainable buildings and construction, and education for sustainable consumption. Most of the task forces are supporting the implementation of demonstration projects and the collection of best practices. These include creating a Tool Kit on Sustainable Public Procurement, implementing a project on Eco-labelling for Africa, undertaking an awareness-raising campaign for tourists called the Green Passport, conducting a Global Survey on Sustainable Lifestyles, developing guidelines for education on sustainable consumption, and preparing a study on the contribution of sustainable buildings and construction to climate change mitigation, among other tools.

Activities have also taken place at the national level supporting the development of National SCP Programmes through capacity building and implementation of demonstration projects in various countries, including Mauritius, Senegal, Indonesia, Tanzania, Egypt, Mozambique, Colombia, Brazil and Ecuador. Progress has been

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<sup>11</sup> For more information on the regional process and outcomes see:  
<http://www.unep.fr/scp/marrakech/consultations/regional>

made in engaging countries with emerging economies, including the convening of national roundtables on SCP in China, India, Brazil and South Africa.<sup>1</sup>

### **3.1.1 Development and implementation of the Africa 10-YFP on SCP**

68. The Regional Roundtables on Sustainable Consumption and Production are forums that are promoted and supported by UNEP to facilitate information exchange and experience sharing amongst the increasing number of institutions and practitioners that are engaged in the promotion of sustainable consumption and production. The African Roundtable has been one of such regional forums that have been supported by UNEP. Accordingly, in August 2000, UNEP organised the First African Roundtable on Cleaner Production and Consumption in Nairobi, Kenya. The Second African Roundtable on Cleaner Production and Sustainable Consumption was organised by the Cleaner Production Centre of Tanzania (CPCT) in collaboration with UNEP and was held in January 2002, in Arusha, Tanzania. Participants of the First and the Second African Roundtable requested UNEP to provide support on institutionalizing the African Roundtable as a regional networking organization. In March 2004, UNEP with the financial support from the Government of Norway started to implement the project on ‘Institutionalizing the African Roundtable on Sustainable Consumption and Production’ (ARSCP). The African Roundtable on SCP (ARSCP) was established as a non-governmental, not for profit regional coordinating institution during the Third African Roundtable on SCP held in Casablanca, Morocco in May 2004. The ARSCP is a multi-stakeholder forum promoting SCP in Africa and its activities include support for the organization of national and sub-regional SCP roundtables , facilitate information exchange on SCP , develop and maintain a directory of African experts on SCP , compile and disseminate case studies in the application of SCP policies and strategies , provide technical and policy input to regional initiatives such as NEPAD ,develop sub-regional and regional projects on SCP ,organize training workshops and seminars on selected topics and promote research partnerships in the area of SCP. The Secretariat of the ARSCP has

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<sup>1</sup> For more information on the National activities and outcomes see:  
<http://www.unep.fr/scp/marrakech/consultations/national>



been established in Dar-es-Salaam, Tanzania and ARSCP has become a legally registered regional not-for profit organization.

68. Subsequently, UNEP, UNDESA, in close consultation with the Secretariats of AMCEN and the ARSCP, facilitated the development of the African 10 Year Framework Programme on SCP (African 10YFP). The First African Expert Meeting on SCP was held in Casablanca, Morocco in May 2004. The meeting deliberated on the key issues that needed to be addressed under the framework programme and identified four thematic areas of focus: **energy, water and sanitation, habitat and sustainable urban development, and industrial development.** The strategic focus of the African 10-YFP is linking SCP with the challenges of meeting basic needs in more sustainable manners. The second expert meeting held in Nairobi, Kenya in February 2005, further deliberated on the four thematic areas and proposed key activities that needed to be undertaken under each area. The African 10-YFP lists more detailed priorities and recommendation for action (UNEP, 2005), for example:

- (i) Energy: promoting renewable energies, energy efficient technologies and modernized energy systems in agriculture, industries and households.
- (ii) Water and sanitation: sustainable management and use of water and sanitation, and safe reuse of waste water.
- (iii) Habitat and urban development: Integrated Solid Waste Management (ISWM), sustainable urban mobility, reduction of vehicle emissions, and sustainable urban development.
- (iv) Industrial development: strengthening capacity of African Roundtable on sustainable consumption and production (ARSCP); financing business transition; value-added chains for agro-products and by-products, market for sustainable goods and services, early warning system to improve value of African products.

69. The outcome of the two African expert meetings on the 10-YFP was presented to the technical segment of AMCEN in February 2005, which endorsed it for submission to AMCEN's Ministerial session. AMCEN, through its Dakar declaration, approved the 10-YFP, in Dakar, Senegal, in March 2005. In May 2006, His Excellency Girma Woldegiorgis, 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, the Economic Commission for Africa (ECA) 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, namely: production and use of bio-fuels; water efficiency and provision; labelling of African products; waste management; and knowledge and information sharing (AU,ECA,UNEP, 2006). The Fifth African Roundtable on Sustainable Consumption and Production (ARSCP-5) was organised in June 2008 in Johannesburg, South Africa and activities and issues related to the African 10-YFP were discussed. The meeting was successful in building greater cooperation between the region and the Marrakech Task Forces (ARSCP5(2008)). Concrete areas for collaboration were identified on Sustainable Public Procurement, Sustainable Lifestyles and Sustainable Building and Construction.

- 70.** AMCEN, through its Dakar declaration, called upon its 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 for the Task Force on Cooperation with Africa during the Second International Expert Meeting of the Marrakech Process in Costa Rica in 2005. This provided the basis for the establishment of the Regional Steering Committee (RSC) for the African 10-YFP, whose overall objective is to facilitate the required coordination of efforts and support to the further development and implementation of the African 10-YFP. Members of the Committee are AMCEN, ARSCP, AU Commission, ECA, UNIDO, UNEP and the Federal Ministry of Environment, Germany. Membership is also open to other bilateral and multilateral development partners (ARSCP and UNEP, 2006; UNEP 2006). Based on the outcomes of the ARSCP 4 and the conclusion of the first meeting of the RSC, the Marrakech Task Force on Cooperation with Africa identified the following as the key focal areas for its activities (UNEP/ECA, 2006):
- (i) development of an eco-labeling scheme for Africa;
  - (ii) support for the development and implementation of SCP action plans at national and local level;
  - (iii) a research study on leapfrogging possibilities for SCP in Africa;

- (iv) collection of best practices on SCP projects in Africa by development agencies and
- (v) Support to the development of networks and knowledge based information tools in the selected fields of action such as waste management and recycling, biofuels, drinking water etc.

Additionally the Task Force has published the findings of a project on best practices in SCP in African countries (MTFCWA, 2007) and has provided support to ARSCP-5., supporting the participation of regional experts, provision of technical input and organisation of a plenary session on inter-Task Forces collaboration.

### ***3.1.2 Key Projects and Initiatives undertaken under the African 10YFP:***

**71.** The following projects and initiatives have been undertaken specifically under the African 10- YFP:

- Pilot projects on Sustainable Consumption and Production of Plastics in Africa, supported by UNEP and implemented by the Government of Kenya.
- Developing Capacities for Sustainable Consumption and Production in Lake Victoria Region, coordinated by UNEP, implemented by Governments of Burundi, Rwanda, Kenya, Tanzania, Uganda, and UNEP
- Life Cycle Analysis Awareness and Inventory Training Workshop coordinated by UNEP: about 23 countries represented at training workshop for country-level life cycle inventory databases
- Sustainable Procurement Workshops in Ghana and Morocco, coordinated by UNEP, implemented by Governments of Ghana and Morocco and UNEP and a regional training workshop held by the Marrakech Task Force on Sustainable Procurement.
- Eco-labelling for Africa implemented by the Marrakech Taskforce Cooperation with Africa. A Regional Expert Meeting on the Development of an African Eco-labelling Scheme was held in June 2007 in Addis Ababa, Ethiopia. As a follow-up to the Regional Expert Meeting, the African Union Commission, UNECA, UNEP and the Task Force on Cooperation with Africa agreed on key elements as the way forward;

- National SCP Programmes in Egypt, Mauritius, Mozambique and Tanzania, coordinated by UNEP and supported by the Marrakech Taskforce on Cooperation with Africa (Germany).
- Best-Practices in Africa in the areas of water, energy and waste management, coordinated by the Marrakech Taskforce Cooperation with Africa. This contains information on selected practices in different parts of the regions and is disseminated to countries for possible replication of those practices;
- The first issue of Bio-Energy International Africa Newsletter was published, under the editorship of the members of ARSCP and ALCANET as part of the September 2007 edition of the Bio-energy International online magazine.
- Study on Opportunities for Leapfrogging, implemented by Marrakech Taskforce Cooperation with Africa.
- Capacity Building for local SMEs in the accommodation sector, supported by the [Marrakech Taskforce on Sustainable Tourism](#).
- Based on information provided through the existing regional networks, five members of the African Lifecycle Assessment Network (ALCANET) competed for UNEP/SETAC Award on Life Cycle Initiatives. Out of the five submissions, the submission from teams working at the University of Zimbabwe and University of Cape Town took two of the three awards provided for the year 2007. More on this can be obtained from <http://lcinitiative.unep.fr>.

### **3.1.3 Achievements**

- 72.** Africa as a region is at the forefront of the global Marrakech process on the 10-Year Framework of Programs as it has: i) a regional 10-YFP that is approved by AMCEN and included in its work plan, ii) created a regional institutional mechanism by establishing the African Roundtable on Sustainable Consumption and Production (ARSCP) as a regional focal institution, and iii) have the Marrakech Taskforce on Cooperation with Africa supported by the Federal Ministry of Environment of Germany as the only region-focussed taskforce under the global support mechanism. Africa has therefore established appropriate structures, political goodwill and mechanisms for sharing

information. The Marrakech Process has not only contributed to the development of the regional 10-YFP, but is also a substantive dialogue and forum for cooperation on SCP issues among governments and other stakeholders at the regional level.

**73.** Sustainable consumption and production activities in the region have been strengthened leading to a number of results which includes the following:

- (i) In addition to the SCP programmes of the existing ten NCPCs, several African countries have moved forward on the establishment of their respective NCPCs while a number of others are considering their next steps.
- (ii) A few pilot projects on SCP have been launched and some of them include the integration of the concept into poverty reduction strategies.
- (iii) Some national/regional roundtables and expert meetings on SCP have been organized since 2004, including the organisation of a regional SCP roundtable for French speaking countries of Western and Central Africa; the SCP Roundtable for the Lake Victoria Region which led to further collaboration between the NCPCs in Kenya, Tanzania and Uganda on developing regional SCP programme for the Lake Victoria region which now includes Rwanda and Burundi also.
- (iv) Support has been provided for selected pilot countries on the development of National and City Action Plans which led to useful lessons and experiences that could be shared by other countries.

**74.** Many initiatives combining poverty alleviation with safeguarding the environment have been initiated by different programmes. . Some notable examples include:

- (i) A project to transform domestic waste into wealth in Kenya by employing techniques which turn waste paper into fuel briquettes and plastic waste into roof tiles. This has not only helped reduce the amount of waste in slum areas, it has also created employment, provided shelter and improved access to energy while at the same time diminished the pressure on trees as a fuel source;
- (ii) A business centre in a poor Ghanaian village uses solar panels to augment erratic grid power for telecommunications applications. Now people in the village can charge their mobile phones locally without having to travel about 5 kilometres to

the nearest village connected to the electricity grid. In doing so, the centre has improved access to information, a key to development;

- (iii) The establishment of a biogas plant in Nigeria running on abattoir waste to create a source of domestic energy, lessening pollution and greenhouse gas emissions<sup>3</sup>. The biogas plant will benefit from technological support from Thailand;
- (iv) The use of mosquito nets placed in acacia trees, in a semi-arid area of Kenya, to breed silk worms which produce high quality silk for the local market<sup>4</sup>. The silk creates a stable income, often benefiting women, far beyond what the tree would have fetched if it had been reduced to charcoal.

The above examples illustrate the potential of resource efficiency and sustainable consumption and production (SCP) and how innovative and sometimes surprisingly simple solutions can help to increase poor people's incomes and access to resources throughout Africa, while at the same time reducing environmental damage. Where the initiatives include the introduction of modern technologies, they also offer an opportunity for leapfrogging – the ability for these countries to by-pass inefficient, polluting and ultimately costly phases of development and jump onto a sustainable development path.

## **3.2 Energy for Sustainable Development**

- 75. 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 costs directly affects prices of other goods and services. 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 enjoins the international community to inter-alia, establish and promote programmes, partnerships and initiatives to support Africa's efforts to

implement NEPAD objectives on energy, which seek to secure access for at least 35 percent of the African population within 20 years, especially in rural areas. 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.

**76. Concrete initiatives and actions taken include:**

- (i) Establishment of a multi-donor NEPAD Infrastructure Project Preparation facility at the African Development bank (AfDB) for the provision of funding for the preparation of several regional projects which include, the Kenya-Uganda oil pipeline; Benin-Togo-Ghana power interconnection project; and Zambia-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 in the Organization pour la Mise en Valeur du fleuve Gambie (OMVG).
- (ii) In its infrastructure short term action plan, NEPAD has identified 7 projects related to energy distribution and production among its top 20 priorities. These priorities which are being translated into specific projects, encompass the creation of power pools, the reinforcement of power interconnection and oil and gas pipelines and the strengthening of regional cooperation through the African Energy Commission.
- (iii) The West Africa Gas Pipeline project which is expected to supply clean and affordable energy from Nigeria to Benin, Togo, and Ghana. A Feasibility study is being carried out by the NEPAD secretariat and AfDB on the Greater Inga Integrator Study, which aims to assess the feasibility of developing the hydropower potential at Grand Inga in the Democratic Republic of Congo to supply the sub regions of Africa and transmit the surplus power to neighbouring continents.
- (iv) Under the African Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology (AFRA), project activities will be implemented by the International Atomic Energy Agency (IAEA) in partnership with the NEPAD Secretariat, the African Energy

Commission and UNIDO to support AFRA members in elaborating national energy strategies and strengthening institutional capability for energy planning. In the framework of UN-Energy/Africa, ECA 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.

- (v) UN-Habitat's energy scale up initiative aimed at increasing energy access in poor rural and urban areas.
- (vi) UNDP/Institut de L'Energie et de l'Environnement de la Francophonie programme for capacity building and investment in mini/micro hydropower which is being implemented in partnership with ECA, UNIDO and UNEP in 11 African countries.
- (vii) UNIDO energy productive use programme and UNEP "African rural energy development project".
- (viii) Regional rural electrification strategies developed in different forms by various RECs such as the Southern Africa Development Community (SADC) and the East African Community (EAC). A sub-regional rural energy programme is well advanced in SADC and the Economic Community of West African States (ECOWAS) countries, with plans to harmonize national policies.
- (ix) Development of Renewable Energy and Energy Efficiency by UNEP, UNESCO and UNIDO.
- (x) Energy Planners in some countries are benefiting from technical assistance to enhance their capacity to effectively use integrated resource planning to mainstream sustainable development in the planning of investments in the electricity supply industry at the regional and national levels.

**77.** In recognition of the fact that the problem of access to energy in rural Africa requires much more attention, means and renewed commitments by all stakeholders, increased country-to-country and city-to-city dialogue and cooperation are taking place on the issue of clean energy access for the urban poor. Energy access scale-up initiatives led to the design of new energy supply schemes integrating energy services to the



development of productive and income generating activities, entrepreneurship, and the promotion of indigenous energy resources. Off-grid systems, based on renewable energy have been developed in rural areas of many countries, and validated as an important option to increase energy access. Progress has been made in capacity development and investments in mini-hydro power systems, with the identification of a large number of mini/micro hydropower potential sites. A sub-regional rural energy program 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 were identified and approaches for their removal were implemented in some countries.

- 78.** Although Africa is endowed with substantial renewable energy resources, there is still emphasis on conventional energy options and a higher proportion of funding is allocated to the conventional energy sector such as large scale hydro and petroleum. Medium to small scale initiatives such as cogeneration, Liquefied Petroleum Gas (LPG), wind-pumps, solar water heaters, off-grid electrification, solar driers, improved stoves etc which have an increased impact on the population are largely left out. Estimates show that up to 16 sub Saharan African countries can meet significant proportions of their current electricity consumption from bagasse-based cogeneration in the sugar industry (Karakezi, 2003). Efforts to improve and modernize small-scale biomass energy constitute an important component of national energy strategies in many sub Saharan African countries. The diffusion of solar water heaters has in general been slower than anticipated and the bulk of solar water heaters in use are bought by high-income households, institutions and large commercial establishments such as hotels. Solar photovoltaics has been promoted in the region but it is still unaffordable to the majority of the population in sub Saharan Africa, given the high levels of poverty. Development of Renewable Energy Technologies have significant implications for the poor through increased reliability, enhanced competitiveness of agro-industries and the job creation potential. Renewable energy can enhance the competitiveness of agro-industries. There is no indication however of regulatory agencies in Africa setting specific targets for the share of electricity from renewable energy technologies. With the exception of Mauritius, the regulatory framework in most of sub-Saharan African

countries does not provide for attractive tariffs to sustainable energy generation options such as small scale hydro, wind, bagasse-based cogeneration and geothermal.

- 79.** Regarding 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 such as geographical mapping of renewable energy resources have been undertaken to increase the share of renewable energy in the energy mix. Solar thermal and other renewable sources of power have considerable potential in parts of Africa. At the community level initiatives such as the Cows to Kilowatt project in Nigeria, demonstrate how small scale initiatives can be developed to offset energy shortage: through the utilization of the methane produced by the degradation of abattoir wastes, the city of Ibadan and its partners expect to provide energy for 2000 households in the neighbourhood. As a result of similar initiatives, progress has been made in access for the poor to energy for cooking and heating, as well as in electricity-grid connections.
- 80.** 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, African Energy Policy Research Network) have contributed to enhancing knowledge and capacity in many countries on cleaner energy technology options for energy production. 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.
- 81.** There has been progress in the means of implementation. The United Nations system and the international community have increased their efforts through various mechanisms at the international level (e.g. the special office for NEPAD) and at the regional level (e.g. the United Nations regional consultation meeting) to support African countries in implementing NEPAD. Financial investments in NEPAD energy projects have increased and are projected to grow further. The internal capacity of several

development and commercial banks and private investors to assess investments in the energy sector had improved. Several actions have been implemented to strengthen the capacity of energy planners and developers, education and research institutions and centres of excellence. Several actors, including the African Energy Commission, had made progress in the collection, management and dissemination of energy information in Africa. Less than 3% of the Clean Development Mechanism (CDM) projects registered under the Kyoto Protocol have been registered in African countries. The Nairobi Framework has been initiated by the UNDP, UNEP, World Bank Group, African Development Bank and the United Nations Framework on Climate Change (UNFCCC) with the specific target of helping developing countries, especially those in sub-Saharan Africa, to improve their level of participation in the Clean Development Mechanism (CDM).

- 82.** There are big hopes in many African countries for the development of bio-fuels. 12 African nations joined Senegal in 2006 in forming the Pan-African Non-Petroleum Producers Association, aimed in part at developing a robust bio-fuels industry in Africa (UN-Energy, 2007). According to Bio-energy International (2007), South Africa began in July 2007 to construct Africa's first production plant for ethanol, based on grains. Seven similar factories are expected to be up and running by 2010. Nigeria plans to build 15 ethanol plants with technical assistance from Brazil. Senegal has launched an experiment on colza plantations to produce biodiesel, and distillation is under way by a Senegalese sugar firm to produce bio ethanol. Senegal and Mauritius have created new Ministries entirely devoted to renewable energies. The Democratic Republic of Congo has set up a special commission to study the possibility of producing bio-fuels in the vast central African nation which cultivates less than five per cent of its arable land. Several other southern African countries including Mozambique, Zambia, Zimbabwe and Tanzania are also processing different projects for biodiesel and bio-ethanol. Commercial biofuels markets could become a major factor in raising the economic viability of rural enterprises in Africa. The increased investment in infrastructure for bio-fuel processing, distribution and transport would also contribute to the overall development of the agricultural sector. While bio-fuels offer potentially significant benefits, it also entails many trade-offs and risks. Experience with the associated economic, environmental, and social impacts is limited, and the types of impacts will

depend largely on local conditions and on policy frameworks implemented to support bio-energy development. The production of biomass for bio-fuels needs to be sustainable and one key sustainability issue in Africa is the implication for food security. The expansion of liquid biofuel production could threaten the availability of adequate food supplies by diverting land and other productive resources away from food crops. This can affect food security at the household, national and global levels through each of four major dimensions: availability, access, stability and utilization (UN-Energy, 2007). More research and analysis is needed to fully understand the long-term impacts of expanded bioenergy production and use on food security in Africa. The effects of bioenergy on food security will be context-specific. And an analytical framework based on country typologies should be developed to facilitate understanding of country-specific effects. The Life-cycle analysis methodology and tools need to better develop in African countries to enable them to assess bioenergy systems.

### **3.3 Water Supply and Sanitation**

**83.** WSSD underscored the importance of provision of clean drinking water and adequate sanitation to protect human health and the environment. In this respect it endorsed the Millennium Declaration targets. The JPOI, with specific reference to Africa, calls for actions to provide access to potable domestic water, hygiene education and improved sanitation and waste management at the household level. It indicates that this could be done through initiatives to encourage public and private investment in water supply and sanitation that give priority to the needs of the poor within stable and transparent national regulatory frameworks provided by Governments. Water and Sanitation is an integral component of the NEPAD infrastructure programme and has one of its objectives, ensuring sustainable access to safe and adequate clean water supply and sanitation, especially for the poor.

**84.** Concrete regional and national actions include:

- The development of water infrastructure has been a priority of most African countries over recent decades. Many multilateral organisations have been involved

in working towards the achievement of the MDGs on water and sanitation access. Some countries have achieved good progress in expanding access to services and improving operating performance.

- The African Ministerial Council on Water and the Africa Water Task Force have been established to enhance cooperation and coordination to promote the development and implementation of coherent policies and strategies for water resources management. The water resources management component of the NEPAD short-term action plan has been developed and focuses on seven river basins.
- The AfDB is providing assistance to NEPAD to implement its water and sanitation infrastructure development programme with a view to enhancing regional integration. Under the auspices of UN-Habitat, the Water for African Cities program is being implemented with the aim of reducing the urban water crisis in African cities
- An increasing number of countries are undertaking policy, legal and institutional reforms and developing strategies for water resources development and management, on the basis of IWRM.
- Good water management practices must be given due weight in SCP. A pilot project on community water management carried out by Ivory Consult Ltd. in the Chumvi Laikipia district in Kenya has generated reduced water conflicts, better conservation of water sources, fair distribution, higher water quality and it also instituted an effective water management system in the area. This has been achieved through the establishment of a cooperative water scheme in the district which has many advantages such as protection of sources and users, legal rights and it can serve as a source of income. Another example is in Zambia where the cooperative model for water management has performed very well in the Lusaka district and has been able to reduce poverty and unemployment.
- Improving water efficiency and reducing water pollution from industry is one of the functions of NCPCs. In a Uganda fish processing plant for example, cleaner production methods reduced water consumption by 30%, with a savings of \$6000 per year ([www.uneptie.org/pc](http://www.uneptie.org/pc)). The promotion of efficient water utilization in African industries is recognized as one of the key factors that would contribute to

the improvement of the quality and quantity of water in the region. The African Brewery Sector Water Savings Initiative (ABREW), implemented by UNEP in collaboration with the ARSCP and the Uganda Cleaner Production Centre (UCPC) which was carried out between 2006 and 2008 aimed at assessing the current status and opportunities for reducing water and wastewater generation in the African brewery sector through the cleaner production approach, and to carry out a framework analysis of water consumption in African breweries. The study report (UNEP, 2008) concluded that most breweries in Africa are still far from the accepted international best practice benchmark for water consumption and cleaner production has the potential to make a major contribution to reducing water consumption in African breweries.

### **3.4 Habitat and urban development**

- 85.** In its Africa chapter, the JPOI calls for support to African countries in their efforts to implement the Habitat Agenda and the Istanbul Declaration through initiatives to strengthen national and local institutional capacities in the areas of sustainable urbanization and human settlements, provide support for adequate shelter and basic services and the development of efficient and effective governance systems in cities and other human settlements. In its Africa chapter, the JPOI advocates for support to African efforts to develop affordable transport systems and infrastructure that promote sustainable development in Africa. Transport is an integral part of NEPAD's infrastructure program.
- 86.** UN-Habitat has launched the Global Campaign for Sustainable Urbanization to operationalize at country level, the Habitat Agenda, through various programmes such as Water for African cities, Urban Observatories, Safer Cities, Good Urban Governance and Local Agenda 21. Furthermore the UN Habitat Regional Office for Africa and the Arab states (ROAAS) supported the Global campaign launched in various countries. UN Habitat provided technical assistance in collaboration with Cities Alliance to implement the Plan of Action on slum prevention and upgrading, and Cities Development Strategies (CSD). Furthermore, UN-Habitat and other partners have

launched the Global Land Tool Network (GLTN), which tries to document best land practices and in which Africa will be an important beneficiary. In collaboration with the European Union, UN-Habitat has implemented the Regional Urban Sector Profile for Sustainability (RUSPS), in over 23 countries in Africa, to develop medium to long term policies.

- 87.** Many African cities are beginning to adopt the principles and norms of good governance. The Global Campaign will also promote security of tenure and the improvement of the living standards of the poor by providing them affordable housing, employment and sustainable livelihoods. Many African countries have mainstreamed sustainable urbanization into their PRSPs, and have introduced programmes and projects for the provision of basic urban services such as water and sanitation, and for slum upgrading and prevention policies, as well as social housing schemes. With support from ROAAS and the Habitat Programme Managers, several countries in the region have undertaken initiatives to review and reform national housing and urban development, and policies and legislation for adequate access to land, water and sanitation, slum prevention and upgrading and shelter. The African Sustainable Cities Network (ASCN), established in 1995 within the framework of LA21 and coordinated by ICLEI through its office in Africa, has the purpose to build capacity of local authorities in Africa to institute participatory environmental planning as an ongoing function of local public administration.
- 88.** The responses to the challenges of urbanization vary from city to city. Most have tended to respond on ad hoc basis, by employing both sectoral and top-down approaches to solving problems. In some cases, the role of either a city or local government has been dominant, especially in cities that are organized along mayoral principles (UN Habitat 2006). Initiatives undertaken by African countries to meet the target of improving the quality of life of 100 million slum dwellers range from review of national housing policies (Namibia), introducing programmes on the provision of basic urban services (Nigeria) and introduction of legislation and policy on housing rights, access to land and secure tenure (Tanzania, South Africa and Namibia) (ECA/UN Habitat, 2003). Countries such as Egypt, South Africa and Tunisia have developed specific slum upgrading and prevention policies as an integral part of their national poverty reduction

policies and strategies (UN-Habitat, 2006.) However, with the exception of a few countries such as South Africa, efforts made have not had much impact on housing provision, slum upgrading and poverty reduction. The NEPAD City programme initiative, if successfully implemented, will go a long way in easing the lives of city dwellers, including those living in slums. NEPAD aims to address urbanization and its consequences to make African cities more attractive for economic investment (UN-Habitat, 2005).

- 89.** Cape Town is the only African city on the list of the world's 10 cities most likely to become a global sustainability centre by 2020, according to the Ethisphere Institute, which released its findings in 2008(Ethisphere,2008). It has a vision for future sustainability. For example, the city has a goal to have 10% of homes using solar power by 2020, as well as have 10% of the city's energy consumption coming from renewable sources by that time. On the other hand, the Department of housing in South Africa has embarked on energy efficient housing design and implementation. with the view of creating thermal comfort levels in housing units in the low income housing sector, as well as reducing green house gas emissions It is also establishing standards for energy efficiency in the low-income housing sector .
- 90.** Many countries in Africa are beginning to put in place the strategic policy and institutional framework to address some of transport-related problems. However, transport concerns are still not integrated as well as they might be into spatial planning policies, and this is vital given that land-use patterns have such a fundamental effect in determining the shape of transport demand. Given the still moderate levels of private transport use and car ownership, and the need for modernization of the transport systems, there are opportunities for African countries to avoid the widespread transport problems of developed western countries.
- 91.** In most large cities of the developing world, public municipal transport systems have not kept up with rapid urban growth, and informal transport services have grown rapidly to meet the growing needs and to respond to emerging demands for services not provided by the formal system. The informal transportation sector thus provides essential transport services, especially for informal settlements and poor people. This



informal transport often complements municipal services, serving areas not served by municipal services and providing feeder services to the large buses on main routes. The rapid growth of informal transport, while meeting essential needs and contributing to economic growth and poverty reduction, has also posed major challenges to sustainable urban development, in part because of lack of regulation. The vehicles are often old, highly polluting and unsafe, and operators usually have no insurance to cover injuries or damage. In many cases, informal transport vehicles are old used buses, vans or cars imported from developed countries. Some cities are addressing these problems by licensing and regulating the informal sector and setting vehicle standards and insurance requirements. Inadequate urban planning is a significant driving force behind rising emission levels, because residential and commercial centres are often far apart, forcing mass movement of workers on a daily basis. Poor economic development has also contributed to air pollution by creating dependence on old vehicles and dirty fuels. The Clean Air Initiative in Sub-Saharan Cities(CAI-SSA) , launched in 1998, and sponsored by the World Bank in collaboration with a number of partners, has the objective to improve air quality through the reduction of air pollution originating, particularly, from motorized transport but also from industries and households. Studies carried out since 1998 in Dakar, Ouagadougou, Cotonou and Abidjan indicate that urban air pollution negatively impacts the economy by 1.8 % to 2.7 % of G.D.P. If nothing is done in the near future, this impact is expected to increase significantly given the effects of urban population growth and increase in car ownership ([www.cleanairnet.org/ssa](http://www.cleanairnet.org/ssa)). Some countries, mostly developed countries, require periodic inspection of vehicles to eliminate those that do not meet standards. The old, polluting vehicles that cannot be used in those countries are sometimes exported to developing countries that do not have standards or inspection systems. To address environmental and safety issues arising from old cars, some developing countries restrict imports of used cars beyond a certain age. While such restrictions are not as effective as standards applied to all old cars, they are much easier to administer. Air pollution from traffic can be reduced through the use of clean vehicles and fuels. Some progress has been made in improving the quality of transport fuel, e.g. banning leaded petrol . Studies have shown that every dollar invested in cleaner fuels and vehicles can yield up to \$40 in health and other economic benefits (World Bank, 2000).

92. Bicycles can be an effective means of reducing traffic congestion and air pollution.. In Kenya, a luxury tax on bicycles at the rate of 80% until 1986 was gradually reduced, and finally eliminated in 2002, resulting in a large increase in bicycle sales. Most African countries still tax bicycle imports as luxury items, limiting access by poor people to low-cost and environmentally sound transportation.
93. Cities across Africa urged to push harder to access a growing range of global environment funds to help them finance sustainable public transport systems up to cleaner, less pollution, energy supplies. The streets and infrastructure of far too many of Africa`s cities are being overwhelmed by traffic leading to rising levels of health hazardous air pollution and impacts on economy. An increasing number of cities in the developing countries of Asia and Latin America are starting to introduce modern 21<sup>st</sup> century, rapid bus transit systems alongside measures to boost safer cycling and walking. The financing of sustainable public transport systems up to cleaner, less polluting energy supplies. In terms of sustainable transport projects, only Dar es Salaam in Tanzania is taking advantage of GEF funding with a rapid bus transit system earmarked there. South Africa is also hoping to use GEF funding to help its cities boost sustainable public transportation for the 2010 World Cup.

### **3.5 Sustainable industrial development and corporate social responsibility**

94. In its Africa chapter, the JPOI enjoins the international community to enhance the industrial productivity, diversity and competitiveness of African 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 the NEPAD objectives on manufacturing, which include increasing production and improving competitiveness and diversification of the domestic private sector, especially in the agro-industrial, mining and manufacturing sub-sectors, with potential for exports and employment creation. However, any industrialization strategy must be environmentally sustainable and must not be a contributor to further environmental degradation. The JPOI includes numerous

references to eco-efficient production, pollution prevention, resource/energy efficiency, and the transfer and diffusion of environmentally sound technologies. Sustainable development and Poverty reduction will be achieved through the contribution of the private sector. Corporate Social Responsibility (CSR) has become a central element of corporate image in the global economy, where companies source raw materials and components through global supply chains. CSR programmes include codes of conduct, environmental management systems, stakeholder dialogues, community investment and philanthropy, and reporting, auditing and certification. WSSD called for the enhancement of the concept of Corporate Social Responsibility (CSR) and the JPOI emphasized the contribution of the industrial sector to sustainable development in Africa by supporting broad-based participation, social and environmental responsibility. CSR is also an important criterion of the corporate governance objective of NEPAD's APRM.

**95. Concrete regional and national initiatives include:**

- (i) In July 2004 the AU assembly endorsed the Africa Productive Capacity Initiative (APCI) as the NEPAD Sustainable Industrial Development Strategy. In particular it requested that the AU commission and the NEPAD Secretariat provide assistance to member states in their implementation of the strategy through the development of concrete action plans. An action plan has been developed for the West African region and planning for other sub-regions is ongoing (UN, 2005). UNIDO is providing technical assistance through the APCI, which aims to increase MVA in selected industrial sectors identified in Africa's five sub-regions. The African Productive Capacity Facility (APCF) has been established as a financial mechanism to support the APCI and UNIDO has provided seed money to the facility to start implementation. Through the Initiative, selected industrial sectors in Africa's five sub-regions are benefiting from technical assistance to increase manufactured value added.
- (ii) UNIDO has assisted many African countries to develop and implement programmes aimed at improving the competitiveness of selected industries and, wherever possible, identify 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 training at the Nairobi Leather Development Centre. For SMEs, UNIDO activities have been focusing on policy formulation and implementation; institutional capacity building and improving entrepreneurial skills at the enterprise level.

- (iii) UNIDO and UNEP supported by UNDP or bilateral donors are actively promoting Cleaner Production in Africa. Since 1994, 11 have been established in Africa: Egypt, Ethiopia, Kenya, Morocco, Mozambique, Rwanda, South Africa, Tanzania, Uganda and Zimbabwe. Additional centres are in the process of being established and many African countries have requested to have NCPCs established (ECA, 2006).
- (iv) There are development of industrial environmental policy, regulation and guidelines, including the adoption of corporate social responsibility codes in some countries.
- (v) Establishment of national industrial information networks, capacity-building in information technology and promotion of linkages between research and development of institutions and industry.
- (vi) Development of policies for investment promotion and foreign direct investment.
- (vii) Metrology standards, testing and quality institutions provide complementary support to the introduction of such standards by allowing 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 R&D.
- (viii) Countries have also established agro-processing ventures and medium-sized and micro-enterprises, and are gradually accessing finance, technology transfer and capacity building for growth oriented and competitive medium-sized and micro-enterprises, with an increased emphasis on creating opportunities for women.

**96.** According to the International Organization for Standardisation (ISO), by the end of 2005 at least 111 162 ISO 14001 certificates had been issued in 138 countries, a 24% increase over 2004. African countries account for only a very small share of ISO 14001

certifications issued worldwide. Of the 630 ISO 14001 Certificates issued to organizations in Africa in 2003, 378 were to South African organizations.

**97.** Through global supply chains, international trade and investment, CSR practices are gradually being transferred to companies in developing countries. The main vehicles for CSR commitment and reporting are the UN Global Compact and the Global Reporting Initiative (GRI). Launched in 2000, the UN Global Compact is one example of a voluntary multi stakeholder initiative to promote corporate responsibility in the fields of human rights, labour standards, environment and corruption. CSR reporting generally remains low or inexistent so far. Concrete Actions taken and progress made in the area of CSR include:

- (i) The NEPAD Business Group (NBG) acts as a medium between NEPAD and private companies that support its aims, functions as information hub on trade and investment opportunities in Africa and encourages private sector involvement in sustainable development projects. The African Institute of Corporate Citizenship (AICC) was officially established in 2001. It is an NGO promoting the role of business in building sustainable communities. The AICC also aims to raise awareness and mobilize constructive action and collaboration between communities. The Institute has established Various forums and centres aimed at ensuring the adoption of sustainable practices by African and foreign companies operating in Africa. The Africa Corporate sustainability forum (ACSF) , one of the bodies of AICC, is a member of the NBG (AICC, 2006).
- (ii) Participating organizations from Africa in the UN Global Compact international initiative include 17 business associations and several stakeholders from civil society and academia.
- (iii) The Global Reporting Initiative (GRI) is one of the most widely recognized and important initiatives for CSR. South Africa is a leading country in terms of its companies' sustainability reporting. The WBCSD has member companies in South Africa and partner organizations in a few other countries.
- (iv) The United Nations Environment Programme Finance Initiative (UNEP-FI) is a global public private partnership between UNEP and 239 firms from across the

global financial services sector. Its mission is to collaboratively integrate relevant environmental, social and corporate governance criteria into financial sector operations and services (UN/SFDFA, 2004). UNEP-FI activity areas include investment, banking, financing, social security, insurance and reporting. The African Task Force (ATF) was launched in 2002 to support and expand sustainable financial practice in Africa, with AICC as its secretariat. The ATF has released the Sustainability Banking in Africa Report, which was produced by the AICC Centre for Sustainability Investing. The Equator Principles provide a framework for financial institutions to manage environmental and social issues in project financing. The Principles have so far been adopted by 30 of the world's major financial institutions (AICC, 2004, Agbazue, T., 2005).

- (v) The World Business Council for Sustainable Development (WBCSD) is a CEO-led, global association of some 200 companies dealing exclusively with business and sustainable development. Its mission is to provide business leadership as a catalyst for change toward sustainable development, and to support the business license to operate, innovate and grow in a world increasingly shaped by sustainable development issues. The council has member companies in South Africa and partner organizations in Egypt, Algeria, Nigeria, Zimbabwe, Mozambique and South Africa (<http://www.wbcd.ch>, 27-06-07).
- (vi) National actions: In most African countries, the practice and concept of CSR is relatively recent. Given its developmental context, the application of CSR in Africa mainly contributes to addressing those issues affecting the daily lives of Africans. CSR in most countries is perceived and practiced as corporate philanthropy (Amaeshi et al; 2006). In Kenya, surveys suggest that the cause receiving the highest proportion of corporate donations is health and medical provision. Donations are also directed towards education and training, HIV/AIDS, agriculture and food security and underprivileged children.
- (vii) CSR is an important issue in mining companies and sugar industries in Southern Africa.
- (viii) African business associations and several stakeholders from civil society and academia are participating in global compact initiatives and a UNEP financial

incentive. An African Task Force has been launched to support and expand sustainable financial practices in Africa.

### **3.6 Food Production and consumption**

- 98.** The JPOI stressed in paragraph 67 the crucial role of agricultural productivity and sustainable production in achieving food security in Africa. The Plan calls upon African countries to develop and implement food security strategies, within the context of national poverty eradication programmes, by 2005. This supports NEPAD's agriculture sector objectives, which include : to improve the productivity of agriculture, with particular attention to small scale and women farmers; to ensure food security for all people and increase the access of the poor to adequate food and nutrition; and to develop Africa into a net exporter of agricultural products. Food supply chain members share the responsibility to produce and supply food in the most environmentally sustainable way. Consumers on the other hand indirectly affect upstream environmental impacts through their purchasing decisions. Scientifically reliable and understandable environmental information can help consumers in cities consider the wider sustainability implications of their purchasing decisions and behaviour. There is great potential for organic food production in African countries but the development of certified organic farming in African countries lags significantly behind.
- 99.** African countries have taken measures at national, sub-regional and regional levels to improve agricultural production, which include the following:
- (i) The Maputo Summit Declaration that endorsed the Comprehensive Africa Agriculture Development Programme (CAADP) plan of Action calling for 6% agricultural growth rates, and the commitment by African leaders to allocate at least 10% of their national budget to agricultural and rural development by 2008. The latest AU figures show that only six countries have reached this target of 10% of the national budget allocated to agriculture and only 11 countries have fulfilled the commitment on agriculture growths contained in the CAADP.

- (ii) The 2004 Sirte Declaration on the Challenges of Implementing Integrated and Sustainable Development in Agriculture and Water in Africa, which contains 25 ambitious commitments.
- (iii) The Fertilizer Summit that adopted the resolution to increase fertilizer use in Africa from 8 kg per ha to 50 kg per ha by 2015.
- (iv) The 2006 Abuja Food Security Summit that recommended the establishment of African common market for basic food products.
- (v) FAO works directly with RECs in promoting cross-country partnership and regional integration to enable countries to successfully confront the challenges of food security and solve regional problems through collective action.
- (vi) In the context of the 2008 food crisis, AU/NEPAD adopted in March 2008 an ambitious Framework for African Food Security which encompasses immediate, medium term and long-term priorities to increase food supply.
- (vii) IFAD plays a key role in the specific NEPAD Pan African Cassava Initiative (PACI) aimed at disseminating new cassava-processing technologies and developing regional markets for the crop. IFAD also supports rice production.
- (viii) The Forum for Agricultural Research in Africa (FARA) is assisting African countries in developing their research capacity for improved agricultural productivity and sustainable management of natural resources.
- (ix) Production of Cassava, exports of fruits and vegetables, tea production and exports and fish catch are subsectors which have been performing relatively well.
- (x) Livestock and fisheries are major sources of food for African people. The meat consumption per capita in sub-Saharan Africa was 13 kg per year, compared to a world average of 40 kg per year and to about 100 kg in developed countries. As a result of economic and environment constraints, fishing and livestock raising have failed to keep up with the growing African population. Per capita fish consumption over the last two decades has decreased by an average of 2.1 kg per person per year while between 1990 and 2005 per capita meat production fell in 30 out of 47 sub-Saharan African countries (UNDESA, 2008b) . To stimulate growth in fishing and livestock production, African countries have requested NEPAD steering committee to undertake a comprehensive review of the



potentialities and constraints specific to those sectors. Dialogue among the various stakeholders of the fishing industry has been promoted through initiatives such as the 10-year Fish for All initiative, launched in 2002, and the donor supported , FAO executed Sustainable Fisheries Livelihood Programme in West Africa.

### **3.7 Chemicals and Hazardous waste management**

**100.** Chemicals are essential requirements of modern society that need to be managed properly in order to achieve a sustainable level of agricultural and industrial development, and a high level of environmental and human health protection. The potential socio-economic impacts and costs of toxics are large and are borne disproportionately by poor communities. WSSD called for renewed commitment to sound management of chemicals throughout their life cycle for sustainable development. Countries are also to take action at all levels to promote the ratification and implementation of relevant international instruments on chemicals. Additionally, countries are to work on further developing a strategic approach to international chemicals management based on the Bahia Declaration and Priorities for Action, of the Inter-Governmental Forum on Chemical Safety (ICFS) and to implementing the new Globally Harmonized System (GHS) for the classification and labelling of chemicals, with a view to have the system fully operational by 2008. Specifically the Plan calls on development partners to support African countries in strengthening their capacity for the sound management of chemicals and through the provision of technical and financial assistance. Adopted by the International Conference on Chemicals Management (ICCM) on 6 February 2006 in Dubai, United Arab Emirates, the Strategic Approach to International Chemicals Management (SAICM) is a policy framework to foster the sound management of chemicals. SAICM supports the achievement of the goal agreed in the JPOI of ensuring that, by the year 2020, chemicals are produced are used in ways that minimize significant adverse impacts on human health and the environment. The NEPAD Environmental Action Plan (NEPAD-EAP) sets an Africa-wide approach to environmental management and chemicals management is identified as a cross-cutting issue.

### Box 1: The 2006 Ivory Coast Toxic Waste Spill

On August 19, 2006 a ship called the *Probo Koala* offloaded more than 500 tons of toxic waste, rumoured to be dirty water used for cleaning the ship's gasoline tanks, for disposal. The waste was transferred into tankers owned by a firm under agreement that it would be treated and disposed of. However, soon after, it became apparent that the untreated slops had been dumped illegally at municipal refuse dumps. The toxic waste, an alkaline mix of water, gasoline, and caustic soda allegedly gave off many poisonous chemicals, including hydrogen sulphide. In the weeks following the incident the BBC reported that 17 people died, 23 were hospitalized, and a further 40,000 sought medical treatment (due to headaches, nosebleeds, and stomach pains). The ship, the Probo Koala, was a Panama registered tanker chartered to the Dutch company Trafigura. Before it dumped the waste in Abidjan, it attempted to have the waste processed in Amsterdam, Netherlands, but Amsterdam Port Services BV, the company that had contracted to take the waste, refused after its staff reported an incredible smell coming from the waste. A company specialized in the disposal of chemical waste, *Afvalstoffen Terminal Moerdijk* tendered the disposal of the waste (based on the samples it received) for 500,000 Euro. The Proba Koala then left for Côte d'Ivoire where "Compaigne Tommy", which was registered only days before the arrival of the Probo Koala, was contracted for 18,500 dollars to dispose of the waste.

#### 101. Concrete actions taken and progress made include:

- (i) So far 37 African countries are Parties to the Rotterdam Convention of 1998 to promote shared responsibility and cooperative efforts in international trade of chemicals.
- (ii) To date, 44 countries have either ratified or acceded to the Stockholm Convention on Persistent Organic Pollutants (POPs).
- (iii) The African region has played an active and leading role during the process of development of the Strategic Approach to International Chemicals Management (SAICM) adopted by the International Conference on Chemicals Management (ICMM) in 2006. AMCEN, at its 11<sup>th</sup> regular session held in Brazzaville, Congo in May 2006 adopted a decision on the implementation of SAICM in Africa. During the African regional meeting on SAICM implementation held in Cairo,

Egypt in September 2006, African countries endorsed a regional action plan for the implementation of SAICM. A second regional meeting on SAICM was organized in Dar es Salaam in July 2008 in collaboration with the Government of Tanzania.

- (iv) In February 2006, ICCM established the Quick Start Programme (QSP) to implement the objectives of SAICM. African countries have demonstrated commitment to SAICM implementation through the contribution in 2006 of \$100,000 and \$50,000 by the Governments of South Africa and Nigeria respectively. Currently a number of chemicals management projects are being undertaken in the region under the SAICM-QSP. The Basel Convention Regional Centre in Pretoria (BCRC) and the Swedish Chemicals Agency (KemI) are currently undertaking a regional project in order to contribute towards developing a regional needs assessment to promote SAICM in African countries.
- (v) In response for requests from countries for capacity building to support GHS implementation, the UNITAR and ILO initiated in 2001 the UNITAR. ILO Global GHS Capacity Building programme. ECOSOC endorsed the initiative in July 2003 (ECOSOC, 2004). The Programme is supporting national GHS implementation and capacity building projects in Nigeria, Senegal, The Gambia, South Africa and Zambia. Regional activities have also been carried out in the SADC sub-region.
- (vi) The international community has continually lend support to Africa's chemicals management efforts through bilateral and multilateral cooperation and also through various UN organizations responsible for chemicals management training and capacity building. A number of OECD countries have been actively supporting African countries through provision of technical and financial resources for meeting obligations under the various chemicals-related MEAs and currently through the implementation of priority and enabling activities under the SAICM QSP.
- (vii) A regional study on the possible effects on human health and the environment in Africa of the trade of products containing lead, cadmium and mercury for UNEP Chemicals has been carried out by the ARSCP.

(viii) Environmental law has been strengthened across Africa since UNCED. However, the development of national legal instruments to implement a comprehensive approach to chemicals is still lagging behind. This is exacerbated by shortages of resource allocation for enforcement, monitoring and training. Technology and capacity issues also need to be addressed in the implementation of legislation. For example, the development of environmentally acceptable disposal facilities requires a delicate balance between technological complexity and applicability. The requirement of the Stockholm convention, that the parties develop NIPs, provides unique opportunities for countries to reassess their strengths and weaknesses in the area of chemicals management at national level with global support.

**102.** In addition to the threat of trans-boundary movement of hazardous wastes from developed countries, Africa also produces hazardous wastes but does not have adequate technical, technological and institutional capacities to manage them in an environmentally sound manner. The priority hazardous wastes streams in Africa include healthcare wastes, industrial/petrochemical/petroleum, mining wastes, stock of obsolete pesticides and other chemicals banned internationally, used oil, used automotive and dry cell batteries, and e-wastes. Africa is littered with non-engineered landfill sites and other inefficient means of waste disposal. Africa is also littered with contaminated sites. These include dumpsite areas, thermal power plants, polluted rivers, streams and drinking water wells, oil spill sites, oil refineries etc (Basel Secretariat, 2004). WSSD called for renewal of the Agenda 21 commitment to sound management of hazardous wastes for sustainable development as well as for the protection of human health and the environment. The JPOI states that countries can achieve this by promoting the ratification and implementation of relevant international instruments on hazardous waste. The Plan also calls for the promotion of efforts to prevent international illegal trafficking of hazardous wastes and to prevent damage resulting from the transboundary movement and disposal of hazardous wastes in a manner consistent with obligations under relevant international instruments.

**103.** Concrete actions taken and progress made in hazardous waste management include:

- (i) To date, 47 African countries have acceded to the Basel Convention on the Trans-boundary Movement of Hazardous Wastes and their Disposal which aims to protect human health and the environment against the adverse effects resulting from the generation, management, trans-boundary movements and disposal of hazardous and other wastes(<http://www.basel.int/ratif/convention.htm>, 21-09-07). Significant progress has been realized in the implementation of the Convention, due to an enlarged scope that now includes patterns of production, product design, technological innovation, and consumer behaviour. The Convention has made further progress through consolidation of its control system, legal framework, and operation through improved classification of wastes and refined hazard classification. A regulatory system for the monitoring and control of hazardous wastes has been set up and is displayed in the full text of the Convention.
- (ii) To date, the Bamako Convention on ban of the import into Africa and the control of trans-boundary movement and management of Hazardous Wastes within Africa has either been ratified or acceded to by 23 countries ([http://www.africa-union.org/Official\\_documents/Treaties\\_%20Conventions](http://www.africa-union.org/Official_documents/Treaties_%20Conventions), 21-09-07). The Bamako Convention recognizes the sovereignty of States to ban the importation and trans-boundary movement of hazardous wastes into their territories and considers nuclear wastes as hazardous. In spite of its significance for African countries in regulating the hazardous waste trade, it has been noted that the ratification and implementation of the Convention has been very slow. The first COP is yet to be held.
- (iii) An amendment to the Basel Convention was introduced in 1995. This amendment states that Parties which are members of OECD and EC are to prohibit immediately all trans-boundary movements of hazardous wastes destined for final disposal to other States. These States should phase out by 31 December 1997 and prohibit as of that date all transboundary movements of hazardous wastes. A critical factor acknowledged by the Conference of the parties was that trans-boundary movements of hazardous wastes, especially to developing countries, have a high risk of not constituting environmentally sound management of hazardous wastes as required by the Convention. The Amendment brings the objectives of the Basel Convention closer to those of the Bamako Convention.

This complementarity is one of the main reasons that prompted the OAU to encourage African countries to ratify the Basel Convention after ratifying the Bamako Convention. The amendment is yet to enter into force, but 11 African countries have so far acceded to it. <http://www.basel.int/ratif/ban-alpha.htm>, 21-09-07.

- (iv) The Protocol on Liability and Compensation was adopted in Basel in 1999, during the 10th Anniversary of the Basel Convention. The aim of the Protocol is to provide for a comprehensive regime for adequate and prompt compensation, including reinstatement of the environment, for damage resulting from the transboundary movement of hazardous wastes and their disposal. The Protocol is yet to enter into force. To date, only eight countries have acceded to the Protocol, seven of which are African countries <http://www.basel.int/ratif/protocol.htm>, 21-09-07.
- (v) Other regional initiatives include the African, Caribbean, and Pacific (ACP) and the European Union (EU) Treaty on hazardous wastes. The treaty bans the export of hazardous and nuclear waste from the EU countries to the member countries of ACP. The treaty also prohibits the ACP countries from importing these wastes from any other non-EU countries. Also, the ECOWAS resolution calls for specific penalties for those involved in dumping toxic wastes in member countries. Subsequently, member countries such as Ivory Coast adopted a law that specifies up to 20 years in jail and fines up to \$1.6 million for anyone convicted of hazardous waste dumping (Olurominiyi, I, 2006).
- (vi) Parties to the Basel Convention established Basel Convention Regional and sub-regional Centres (BCRCs) to address specific regional or sub-regional needs. The BCRCs deliver training, dissemination of information, consulting, awareness raising activities and technology transfer on matters relevant to the implementation of the Basel Convention and to the environmentally sound management of hazardous and other wastes in the countries they serve. African countries are served by four centres: Cairo, Egypt for Arab States; Dakar, Senegal, for French-speaking countries in Africa; Pretoria, South Africa for English-speaking countries in Africa and Ibadan, Nigeria which hosts the coordinating centre for the Africa Region:

<http://www.basel.int/centers/centers.html>, 21-09-07. The centres have organized several capacity building activities for on hazardous wastes and chemicals management. NEPAD and the AMCEN have endorsed the use of the BCRCs in Africa for capacity building and the execution of projects on wastes and chemicals, with a view to enhancing the competencies of governments to implement the various Conventions on wastes and chemicals. The supports UNEP-led initiatives aimed at improving synergies among chemicals and wastes related Conventions.

- (vii) Parties to the Basel Convention recognize the importance of developing strategic partnerships with business and industry and NGOs to support the Basel Declaration on Environmentally Sound Management. In this regard, the Strategic Plan for the Implementation of the Basel Convention to 2010 was adopted. Activities carried out in Africa in the framework of this Plan include, demonstration of a regional approach for environmentally sound management of PCBS, used oil partnership, biomedical and health care wastes. The African obsolete pesticide Stockpile Project (ASP) has been established to clean up stockpiled obsolete, catalyze development of prevention measures and build capacity for chemicals-related issues. The project started in 2001 and is supported by FAO, WWF, PAN-UK, the World Bank, the Basel Convention, UNEP Chemicals, UNIDO, UNECA, AU and Crop Life International. The project is envisioned to span between 12 to 15 years and is estimated to cost \$250 million. The implementation began in 2002 with seven African countries, including Ethiopia, Mali, Morocco, South Africa, Tanzania, Tunisia and Nigeria.
- (viii) International development partners such as the World Bank, UN Agencies, particularly UNEP and developed countries through bilateral arrangements, have lent support to Africa's waste management initiatives and efforts. The World Bank and the AfDB have funded urban solid waste management projects in many African cities aimed at improving sanitation and primary health care. The four BCRCs in Africa were established with support from UNEP through the Secretariat of the Basel Convention. The Governments of Norway and Sweden are currently funding projects at the BCRCs in Egypt and South Africa. GEF is also funding a project at the BCRC in Senegal. The EU pledged EU 1 million at the

Eighth Conference of Parties (COP) of the Basel Convention, held in Nairobi, Kenya in 2006 to support projects on e-waste.

- (ix) Many African countries have adopted policies and legislation on hazardous waste, including hazardous waste management, and are implementing activities to support the environmentally sound management of hazardous waste.

**104.** The decreasing cost of replacing computers, mobile phones and other electronic gadgets, and the speed with which technology goes out of date, mean there is more and more to be disposed of. Traditionally, much of the waste found its way to Asian countries such as China and India, but tighter regulations means more and more is ending up in Africa. A recent study by the Basel Action Network concludes that a minimum of 100,000 computers a month are entering the Nigerian port of Lagos alone ([www.ban.org](http://www.ban.org)). Policies need to be put in place to protect African nations from unregulated imports of electronic wastes (e-waste) that release heavy metals and chemicals.

### **3.8 Sustainable Tourism Development**

**105.** WSSD called on countries to promote sustainable tourism development, including non-consumptive and eco-tourism and promoting sustainable tourism development in Africa is a goal set out in paragraph 43 of the JPOI. The goal is to increase the benefits from tourism resources for the population in host communities while maintaining the cultural and environmental integrity of the host communities and enhancing the protection of ecologically sensitive areas and natural heritages. NEPAD also calls for capacitating African communities to actively engage in sustainable tourism, including adventure tourism, ecotourism and cultural tourism. The Africa chapter of the JPOI supports this call. The chapter recognizes the need to support Africa's efforts to attain sustainable tourism that contributes to social, economic and infrastructure development.

**106. Concrete actions taken and progress made are as follows:**



- (i) NEPAD has identified tourism as an important vehicle to address the current development challenges facing the African continent. The 41<sup>st</sup> 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 and some countries have started to adopt policies that create opportunities for the poor within tourism. (UNWTO, 2006a).
- (ii) Many African countries have adopted the Global Code of Ethics for Tourism which is a set of basic principles whose purpose is to guide tourism development and to 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 on cultural heritage, while maximizing the benefits of tourism in promoting sustainable development and are reporting on implementation progress. In a 2004-2005 UNWTO survey on the implementation of the Code, Africa recorded the second highest number of respondents (27 countries compared to Europe's 28) (UNWTO, 2005).
- (iii) Sustainable tourism is an important niche market in the global tourism industry, which can play a very important role in sustainable development. In this regard, 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 Africa. 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. It is closely linked to the MDGs. UNWTO has organized seven regional training seminars on tourism and poverty reduction during 2004 and 2005, in order to build capacities among public officials in developing countries, three of which took place in Africa; Benin, Tanzania and Mali.. Furthermore, WTO together with UNEP has produced a set of policy guidelines and tools

aiding governments particularly at local level to promote sustainable tourism (UNWTO, 2006b).

- (iv) In 2002, stakeholders in the tourism industry including 20 countries in Africa, made a declaration on responsible tourism in Cape Town with reference to major sustainable development milestones, NEPAD and the UNWTO/UNCTAD ST-EP initiative: (<http://www.responsibletourismpartnership.org/declaration.html>, 28-06-07). UNWTO launched the specific programme for the promotion of tourism development in SSA in 2003. The programme is structured around six major axes, namely: 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 (UNWTO, 2006).
- (v) There is an essential need for capacity building for those implicated in ecotourism and protected area management, and in providing technical advice and support in the field. In an effort to meeting this need, 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 (UNWTO, 2006a). The third regional workshop was held in Gabon in January 2007 (UNWTO, 2007).
- (vi) Many efforts are under way to increase understanding of how tourism can contribute to poverty reduction and of how to translate this understanding into concrete actions. 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 (SNV and ODI, 2006). 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. In order to assist tourism companies implement local linkages and partnerships and enhance local impact, a Pro Poor Tourism Tools and Tips Project has been launched in Southern Africa (<http://www.responsibletourismpartnership.org/>, 19-

08-05). Development Assistance Agencies (DAA) have also been involved in bottom-up approaches to tourism development. For example, SNV has been involved in tourism projects since mid 1990s, including Tanzania's Cultural Tourism Programme, Botswana's Community Based Tourism, Uganda's Community Based Tourism Association, and Ghana's Ecotourism development programme. SNV has recently moved from supporting community-based tourism to mainstreaming pro-poor tourism principles in the tourism sector to enhance the impacts in the field (UNWTO 2006b).

- (vii) WTO's Global Codes of Ethics for Tourism, UNEP's Principles on Implementation of Sustainable Tourism which addresses governments to integrate sustainable tourism into national development strategies, and award schemes and certifications such as Green Globe and ISO 14001 all help in putting tourism on a sustainable path. The Marrakech Task Force on Sustainable Tourism in partnership with UNEP and other partners launched in June 2008 an interactive teaching pack for the hospitality industry to be disseminated to hospitality schools worldwide through UNEP's partnering associations. Another initiative of the Task Force is the launching of an online campaign with green travel tips for the world's growing number of international tourists. The Internet-based campaign, Green Passport aims to raise tourists' awareness of their ability to contribute to sustainable development by making responsible holiday choices. Tourism is a top priority for attracting investment in developing countries. When done correctly, tourism investment can create local jobs, conserve natural resources and infuse long-term wealth, but many conscientious investors and developers are searching for guidance on how to responsibly develop tourist destinations. The Sustainable Investment and Finance in Tourism Network (SIFT) created by the United Nations Foundation shares best practices for tourism investments, facilitates coordination between existing funds, donors and investors that are developing country destinations and connects professionals worldwide through research, workshops and publications.

### **3.9 Cleaner Production and Eco-efficiency**

- 107.** The promotion of efficient development and utilization of African resources with a particular focus on energy, water and mineral resources is of high importance to the region. In this context, the promotion of resource efficiency and demand-side management programs need to be given high consideration by all African countries. Poor energy and resources efficiency in economic sectors not only wastes resources but can also lead to unnecessary pollution, a situation that is not only costly to businesses but also governments. The application of cleaner production can significantly improve the competitiveness of industry and reduce the negative environmental impact of existing production processes due to the efficient use of water, energy and raw materials. CP and Energy Efficiency (EE) can help bring about environmental and economic benefits.
- 108.** CP can only be sustained if capacity is in place to adopt and adjust it to local conditions. To make the CP programme a reality and promote the application of CP by enterprises in developing countries, UNIDO and UNEP launched the International Programme in National Cleaner Production Centres (NCPCs) in 1994 with a purpose of building national capacities for the promotion of CP in developing countries and economies in transition through the setting up of NCPCs. Since then NCPCs have been established in more than 40 countries including 11 countries in Africa: Ethiopia, Egypt, Kenya, Morocco, Mozambique, Rwanda, South Africa, Tanzania, Tunisia, Uganda and Zimbabwe. With the support of UNIDO and UNEP, NCPCs are providing technical assistance and capacity building to these countries. Most CP activities were driven by NCPC programmes that have so far focused on the industrial sector, despite enormous potential opportunities in the agricultural and others sectors of the economy. The overall progress of the NCPC programme is satisfactory as recognized by several third party evaluations. The effectiveness of the NCPCs has been good in their evolving capacity as CP network facilitators. After an incubation stage, most of the NCPCs are now at an implementation stage.
- 109.** NCPCs have their work programs focus on three key activities: awareness raising and training, demonstrations and assessments, and CP-related technical support .Other

activities would include CP policy advice, product related work and consumer awareness initiatives.

- (i) **Awareness Raising & Training:** Spreading awareness of the CP concept through examples has been one of the major strategies towards improving both acceptance and understanding of CP across a wide range of stakeholders. Activities by NCPCs involved mainly awareness raising and training seminars for SME staff on CP and Environmental Management Systems (EMS), industry CP assessments, policy advice to governments and technical assistance on EMS implementation.
- (ii) **CP Demonstrations & Assessments:** Many demonstration projects have been launched to convince industrial leaders of the economic and environmental benefits of CP. Sectors where most of the demonstrations were performed have been mainly textiles, metal finishing and tanneries.
- (iii) **CP-related Technical Support:** A wide range of technical support services was also rendered to industry. They included collecting, collating and distributing information to needy industries, development of EMS, review of curricula at universities, CP-based policy advice to governments, technology assessments, Eco-design based product development and carrying out environmental assessments.

**110.** By far the most common services delivered by existing NCPCs are those related to cleaner production, EMS, and training and capacity building. However, even though NCPCs report that they have trained several hundred individuals, it is estimated that only a small number of qualified CP, EST and EMS consultants is available. Involvement of NCPCs in financial engineering projects is much more limited, and few NCPCs have carried out CSR services. Most NCPCs depend heavily on donor financing for their operation and project implementation.

**111.** The NCPCs are the real drivers of the CP concept in countries wherever they have been established. However, the ability of these centres to deliver better results is hampered by various factors including low funding, and understaffing. Considering their limited capacities, these NCPCs have achieved a lot, but still not enough to create national-level impacts. Strategies to enable NCPCs play a greater role towards scaling up these small,

localized impacts are needed. Although strategic partnerships are needed for implementation of CP, few such partnerships have been created. Other CP promoters are not taking the lead in spearheading CP and SC activities. Similarly, there is a need to create knowledge networks involving a wide range of stakeholders in the region and abroad mainly to support research and development and transfer of technology supportive of CP and SC objectives. More needs to be done to document successes to enable evidence-based promotion of CP. Activities largely focus in the manufacturing sector. Applications of CP in other important economic sectors, products and services have been minimal, if any.

**112.** NCPCs are focusing their activities in a few key sectors, before expanding to others in the future. For example the South African NCPC focuses on the following prioritised sectors: Chemicals, Clothing and Textile, Automotive and Agro-processing. The Mozambique NCPC is currently focusing on SCP in the sugar and tourism industries, and the soap and oil industry. Strategies to enable NCPCs to play a greater role towards scaling up small, localized impacts are desirable. Few partnerships tend to exist 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. NCPC's area of focus need to expand beyond industries into regional development programmes. One example is the Lake Victoria Environmental Management Programme where the KNCPC, UCPC and the CPCT can have a major input in the management of the basin. Such stronger linkages are required between NCPCs and regional development initiatives and programmes.

**113.** In 2007/2008 UNIDO, in cooperation with UNEP and the Governments of Austria and Switzerland, carried out an independent programme evaluation of the UNIDO-UNEP CP programme. The evaluation confirmed sustained success in the building up of and strengthening of local institutions to provide services that have achieved uptake of CP by enterprises, government institutions and other organizations. The majority of the interventions were geared towards the establishment of new institutions (NCPCs) and the evaluation concluded that in terms of institutional building and strengthening this approach has been appropriate for the situation in most developing and transitional

countries. However, the evaluation also indicated a number of issues that require resolution to improve the effectiveness, efficiency and sustainability of the Programme such as the lack of an explicit and systematic programme strategy, the absence of a formal link between the two UN agencies and the absence of funding at programme level. To address these issues, a revised Programme Strategy for the Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) has been elaborated. Operationally, this programme strategy builds upon the experience of the last 14 years on NCPCs and addresses the root causes for the low uptake of CP concepts, methods, techniques and policies in developing and transitional economies and the resulting low productivity and high pollution intensity of industries.

- 114.** The mining industry has already adopted the so-called Energy Efficiency Accord, which aims to cut energy consumption by 15% by the year 2015. Already thirty-two signatories have signed the accord. In order to meet the target, the accord aims to address the recovery of waste heat in industries, upgrading of equipment, zero flaring of excess gases as well as other energy management related options.

### **3.10 Development of Policies and Plans in Support of SCP in Africa**

- 115.** Governments across Africa have made efforts to establish a national regulatory framework, to create an environmental administration, to provide funding for strategic programmes and to ensure more effective enforcement. Many countries have now built up institutions responsible for environmental protection, established environmental laws and regulations, and streamlined environmental responsibilities. Most countries have developed basic laws and national strategies or plans for sustainable development or environmental protection. In the 1990s most countries drew up National Environmental Action Plans, often with the assistance of international experts and support from donors. Implementation mechanisms in use throughout the regions include environmental laws and regulations, economic instruments, environmental permitting systems and environmental impact assessment requirements. Policies specifically targeting SCP have not yet been developed in African countries. However, in most countries there are examples of addressing SCP-relevant topics, albeit in an isolated fashion. Cross-cutting

in nature, sustainable consumption and production bring under its umbrella the environment, consumption and consumers, and a supply of products and services. A number of horizontal policies, strategies and instruments under development or already existing in Africa are discussed below.

### **3.10.1 Legislation and Enforcement**

- 116.** Policies and legislative instruments exist to govern environmental management in the countries. CP and SC *per se* are not specifically legislated in the countries today. Similarly, there are no legal instruments that can be used to enforce the reduction in the wastage of electricity and water. There are, however, a number of laws and overarching policies that are aimed at sustainable development and sound environmental management, and which are relevant and consistent with CP requirements. In some countries such as Ethiopia, however, these instruments seem to put emphasis on pollution control. Uganda presents a unique case of SCP legislated—demonstrating that it is possible to incorporate the concept into national policy and legislation. The country’s National Environment (Waste Management) Regulations of 1999 require industries to adopt cleaner production methods.
- 117.** Producer responsibility includes product design and waste management – not at the cost of consumers. The African region is lacking sufficient legislation in these areas, which makes international conventions like the Basel Convention important. Consumer should not cover the costs for waste management. Producers must take their economical responsibility. Extended producer responsibility might be a way forward. Another issue for African countries is the lack of sufficient (environmental) legislation. To get non-signatories to ratify the Basel convention is of great importance according to Consumer International. Environmental data for African production on sectoral and company level is often missing, which makes it difficult to estimate the emissions from production and consumption of goods and services in Africa.

### **3.10.2 Economic Instruments**



**118.** Few economic instruments are in use in African countries which provide financial incentives for SCP. Pollution fees and charges are commonly used, continuing the pre-transition system where fees and fines were charged for the use of natural resources and adverse impacts on the environment. The examples of instruments used range widely. Some charges fees on environmentally harmful products (petrol, diesel, packaging materials, tires and batteries) while some governments encourage more environment-friendly products by applying differential taxation. Introduction of a tax exemption to support resource- and energy-efficient equipment and low-waste technologies is non-existent. This can also encourage setting up facilities for waste recycling and processing. Other types of economic incentives include preferential loan systems, and the use of pollution fees to support environmental protection projects.

Natural resources form the basis for economic growth in Africa and proper valuation of natural resources are important. Economic tools such as natural resources accounting and resource taxation need to be more widely used. More concretely, Payments for Ecosystem Services (PES) provide a mechanism by which those who benefit from services provided by Ecosystems—such as water supply and filtration, flood control, erosion protection, biodiversity conservation and carbon sequestration—can pay for them and those who provide the services can realize financial benefits of their efforts. The innovation and the characteristic that differentiates PES from previous paradigms or approaches is that the payments are conditional or contingent on ecosystem service provider maintaining a flow of a specified ecological service. In Africa there is a potential for significant growth of such markets and payments for ecosystem services.

### ***3.10.3 Eco-labelling***

**119.** To educate consumers and to increase their awareness on sustainable consumption and production, it may be a good strategy to have a variety of policies and campaigns that focus on other aspects than SCP but where SCP is a side benefit. The area of food safety and consumer protection is a good example.

**120.** The development and marketing of environmentally friendly products is one of the major elements of achieving a shift in consumption and production patterns. This could

be either an opportunity or a threat to African products depending on the level of preparedness by the region. Given the predominantly organic and flexible nature of production processes in Africa, countries in the region may benefit significantly through the development and implementation of eco-labelling programmes in the region. There are a number of Eco-labelling initiatives operating in the region, the majority are international Eco-labelling schemes relevant to a sector (i.e. fisheries, forestry, organic agriculture, etc.) and used by African products or services, although there are some that are eco-labels specific to the region (UNEP-ARSCP (2007)). A number of sectoral Eco-labelling schemes are being implemented on a regional basis such as the East African Organic Standard and the West African Organic Cotton initiatives. There is currently one national Eco-labelling scheme in operation in Africa, which is the Tunisian Eco-Label. There are also a number of national energy-efficiency appliance labelling schemes which have been initiated in African countries. In 2007 24 South African beaches and 4 Moroccan beaches were awarded a Blue Flag eco-label. The eco-label is awarded for compliance with 29 criteria covering water quality, environmental management activities, various aspects of environmental education and information and for safety and services provided.

- 121.** The project on African eco-labelling initiative was launched in 2007. The overall objective of the project is to expand the market access of 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 on-going activities on eco-labelling in Africa in order to develop an appropriate strategy that can 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 were commissioned which were reviewed at a regional expert group meeting in June 2007 jointly facilitated by UNEP, ECA, and the AU Commission in collaboration with the Marrakech task Force on Cooperation with Africa (UNEP, ECA, AU, 2007). The conclusions of the meeting were that the development of an African eco-labelling scheme would make significant contributions to expanding market access to African products in a global market, while enhancing the region's ability to achieve the MDGs. In this regard the meeting called for a regional

consultative process under the leadership, guidance of the AU commission, UNEP and ECA in the further development and implementation of the mechanism.

- 122.** The proposed launching of the African Eco-labelling Mechanism (AEM) under the general guidance of the African Union Commission and with a secretariat based at the African Organization for Standardization (ARSO) is believed to contribute towards improving the environmental and social profile of African products and expand market access for African products. The draft strategy document of the African Eco-labelling Mechanism (AEM) had been drafted by UNEP based on a combination of regional assessment, technical review and institutional consultations. The aim of the AEM is to support market access for African products regionally and internationally, while at the same time improve the environmental performance of African industries. The four key function of the AEM are validation and harmonization, accreditation and certification, promotion and market facilitation as well as research and advocacy. The governance structure includes an Executive Board to be chaired by the African Union Commission, a Technical Board to be chaired by the African Organization for Standardization (ARSO) and a Secretariat to be hosted at ARSO. The draft strategy document also includes aspects of operationalising the AEM by introducing short-term (three years) and medium-term (additional two years) focus activities and partnership arrangement with regional and international partners.
- 123.** UNEP, together with InWEnt and other partners is implementing the 4-year project “Enabling developing countries to seize eco-label opportunities” aimed at promoting eco-labelling in developing countries. Through capacity building and technical assistance the project helps national industry stakeholders in Kenya to have a key export product-footwear-awarded the EU eco-label and assists South Africa to develop its own eco-label scheme starting form the textiles product group, with the same environmental criteria of the EU Eco-label, plus other social and quality criteria. A National Eco-label Initiative (NELI) was launched in South Africa in May 2008r based on a Public-Private-Partnership (PPP) for a national eco-labelling framework. The NCPC-SA is the project leader and textiles is the product group chosen to pilot the process.

### **3.10.4 Sustainable Public Procurement(SPP)**

**124.** Governments are the largest consumer, representing 8-30% of GDP, hence a shift towards sustainable public procurement can promote SCP substantively. However, SPP does not only promote a significant environmental, economic and social impact, but also catalyses innovations and governments to set role models in procurement to other consumers. Considering that public procurement accounts for 10–15% of GDP the implementation of SPP could provide a strong impulse for implementing SCP. Governments exercise great influence as major consumers of goods and services, spending large amounts of money every year on public procurement. The concept of Sustainable Public Procurement takes into account economic, environmental and social criteria in the tender process. The JPOI highlights the following: ‘Encourage relevant authorities at all levels to take sustainable development considerations into account in decision-making, including on national and local development planning, investment in infrastructure, business development and public procurement. This would include actions at all levels to promote public procurement policies that encourage development and diffusion of environmentally sound goods and services’. However, there has been very little progress with implementing SPP in Africa. The challenge is to initiate SPP on both policy and operational levels.

**125.** The Marrakech Task Force on SPP defines ‘Sustainable public procurement is a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life-cycle basis in terms of generating benefits not only to the organisation, but also to society and the economy, whilst minimising damage to the environment.’ The objective of the Taskforce is for fourteen countries to test the SPP approach by the year 2011. The main outputs so far include developing the SPP approach, principles and definitions, designing and launching a website, status assessment, implementation plan, training as well as guidance material. A Regional Training of Trainers was carried out 2–3 June 2008 in Midrand, South Africa back-to-back with the Fifth African Roundtable on SCP. The pilot African countries that are currently considered for the global project are Mauritius and Tunisia.

- 126.** Incite Sustainability, presented a survey (ARSCP5, 2008)) which assessed the current state of SPP in South Africa and identified potential barriers. While in South Africa social criteria in procurement decisions are often applied, green criteria are hardly used. Some of the barriers are lack of expertise, lack of high-level support or an inappropriate policy framework. In Ghana, it is hoped that the setting up of a national task force on SPP will contribute to the implementation of the SPP approach by introducing activities such as public education and establishing indicators. SPP is not yet part of national action plans and very few social and environmental criteria are applied in public tenders so far, social criteria are used to a certain extent.
- 127.** Public procurement offices or agencies are being established in many African countries. Typically, these public institutions are involved in developing or amending PP legislation and are responsible for providing training to operational PP offices on all levels, including central/regional/local government and other public institutions, which are subject to PP legislation. Adoption of SPP practices is facilitated when national public procurement legislation contains appropriate provisions. In general, it appears that SPP is not practiced to any significant extent.
- 128.** LCA and LCC are important methods for helping to determine the overall environmental impacts of goods or products, and their lifetime cost. This is especially important in procurement. A life-cycle based approach is increasingly being adopted in environmental policy-making in the EU. However, at the present time no African country has adopted policies introducing LCA and LCC.

### ***3.10.5 SCP National and City-wide Action Plans***

- 129.** Several regional and international meetings of the Marrakech Process pressed home the importance of supporting national SCP programmes as well as devising monitoring mechanisms and indicators to measure progress. It was agreed that to make SCP a reality, coordinated and integrated programmes were essential, considering in particular the cross-sectoral nature of consumption and production patterns. Individual policies and activities-no matter how innovative-stand little chance of bringing about wholesale changes in consumption and production patterns. The reason for developing a National

SCP Programme and Action Plan is the necessity to tackle the issue of SCP in a systematic and active way. UNEP has produced the following report - “Guidelines for National Programmes on Sustainable Consumption and Production”. The guidelines recommend a 10-step process for developing and implementing national SCP programme and action plans and these have been followed for the development of this programme.

**130.** Many countries like Mauritius have instituted some policies and are carrying out some initiatives to promote sustainable consumption and cleaner production. However these actions are often not sufficiently coherent or are driven by an isolated strategy or programme. Some key challenges identified during the development of the SCP programme are as follows:

- There is generally a high consensus for the need for SCP among stakeholders but however there is little implementation
- There are policies and initiatives but which are isolated. There is a need for coherence and coordination to integrate and work for the same target
- It is important to develop national dialogues and engage all stakeholders
- There is a lack of transversal cooperation in government
- There is a need to identify and communicate better the economic, social and environmental benefits.

**131.** Individual policies and activities-no matter how innovative-stand little chance of bringing about wholesale changes in consumption and production patterns. The reason for developing a National SCP Programme and Action Plan is the necessity to tackle the issue of SCP in a systematic and active way. A strategic programmatic approach can help balance the necessary interventions for the consumption and production of and market for goods and services. The critical elements of an effective strategy should link long-term vision to medium-term targets and short-term action. A national SCP programme or action plan is a tool for informed decision making that provides a framework for systemic thought across sectors. Working in concert with other socio-economic and sector strategies, a SCP programme can help to institutionalise processes for resource allocation, monitoring, consultation, negotiation, mediation and consensus

building on priority societal issues where interests differ. The SCP programme needs to adhere to the wider goals of poverty reduction and sustainable development.

**132.** Whereas in developed countries much of the focus for SCP policy and action needs to address high levels of consumption, SCP policy in developing countries needs to be more weighted to improving the efficiencies of production, consumption and resource use. National strategies or programmes specifically focusing on SCP have not yet been developed in any African country. This limited progress indicates that in reality, despite political declarations, SCP has yet to reach a high priority on the policy agenda. . Nevertheless, in several countries existing strategies for sustainable development or specific sector-oriented plans address some aspects of SCP. So far no policies in African countries address the question of minimizing the environmental impacts of products at the various stages of their life cycles. In some countries, there are general references to the principle of sustainable development in regard to products, and to the minimization of economic impacts on environment, and to sound management of natural resources.

**133.** International guidelines for developing national SCP programmes have been developed in response to the demands of the Marrakech Process. The two-year project was financed by the UK. Besides the development of the guideline, the project activities included demonstration projects, training seminars as well as clearinghouse and peer review services. UNEP undertook a pilot study (two national programmes: Tanzania and Mauritius; and two local programmes: Cairo, Egypt and Maputo, Mozambique) on facilitating the operationalisation of the African 10-YFP at national and local levels. Based on national/local needs, priorities and issues, SCP priorities were identified and SCP pilots developed. The lessons learnt from the implementation of these pilots were then used to feed into a sectoral policy and strategy review, which would finally be used to mainstreaming SCP in national/local policies and strategies and to generate specific lessons for mainstreaming. The overall objective of this activity is to facilitate the development of SCP programme at national and city level in selected pilot countries and cities and to generate region-specific experience that could be replicated in other countries. The specific objectives are to promote better understanding and appreciation of the key issues related to SCP and to enhance institutional capacity at national and

city level; to identify the key priority areas that need to be addressed at national and city level and to provide a framework for the development and implementation of specific activities that promote SCP; and to develop region-specific knowledge on how to develop and implement programmes and activities related to SCP.

**134.** Currently all the four countries have completed the development of their national or local SCP programmes through a broad-based consultative process and the documents have been endorsed by the respective competent authorities. In the case of Mauritius, the programme document was endorsed by the Cabinet of Ministers and an inter-ministerial implementation mechanism has been put in place to facilitate implementation. UNEP has provided support for follow-up activities and each of the pilot countries have initiated pilot implementation activities in the following areas:

- Mozambique -Sustainable Tourism
- Mauritius -Sustainable Public Procurement
- Tanzania - Demand-side Management
- Egypt-Integrated Solid Waste Management at the community level

### **3.11 Research and Education for SCP**

**135.** The development of new culture and skill that promotes sustainable consumption and production would require undertaking a concerted effort on environmental education and training. Despite increased awareness of the human impact on the environment and a greater focus on personal as well as global consequences of individual lifestyle choices, sustainable development and sustainable consumption are still not central topics in educational systems today. There are major challenges of implementing Education for Sustainable Consumption (ESC) in Africa and the need to aim children, youths and adults alike.

**136.** To promote understanding on SCP, consumer organisations need to be strengthened. There are a number of good examples in Africa, which take environmental, ethical and social aspects into consideration, e.g. the food sector. The general awareness is quite



high in these sectors and they usually have deep roots in sociological context. Informed citizens normally make good (sustainable) decision and that consumer have rights but also responsibilities. Therefore, the role of consumer organisations is important. In order to change behaviour, there is a need for education from a young age onwards, information, consumer policy, regional integration, harmonised policy and concerted work at all level and by all stakeholders. It takes a lot to change consumer behaviour and the role of civil society and their effective contribution to the 10-YFP on SCP cannot be underestimated.

- 137.** The Marrakech Task Force on Education for Sustainable Consumption (ESC) focuses on addressing the global challenges of sustainable consumption at local and national level, optimising opportunities for ESC and identifying relevant resources. The goal of the Task Force is to support the Marrakech process by working at the inclusion of ESC in national educational plans, national strategies for sustainable development as well as SCP action plans.
  
- 138.** Some universities in Africa have embarked upon introducing environment into their education and training programmes. UNEP has interacted with about 300 universities in 54 African countries in formulating the Mainstreaming Environment and Sustainability in African education (MESA) with the main objective of building capacity to promote good governance and educational policy in the region. The results of phase one of MESA showed progress towards the establishment of such courses. The second phase of MESA focuses on building partnerships with universities in other regions as well as networking with experts and interested faculties, developing guidelines for capacity building and organising and encouraging exchange programmes. It also aims to encourage country-based applications of the ESC principles and to develop projects. Universities in Europe provide several start-up companies with programmes on, for example, sustainable entrepreneurship and sustainable tourism. These programmes could also be used in Africa. The UNEP/Wuppertal collaborating centre on SCP is currently undertaking a project aimed at introducing the issues and concepts of sustainable lifestyles and sustainable entrepreneurship into African universities by integrating informal educational activities with formal education.

- 139.** Sustainable lifestyle research aims to strike a balance between basic standards and the material aspect of welfare, creating a balance between values, gender, attitudes and habitat. It requires enabling, engaging, encouraging and exemplifying. The Task Force has a project in Africa involving creative communication for sustainable lifestyles and introducing sustainable lifestyles. A new project on creative communities for Sustainable Lifestyles would be started in Africa. It will be based on previous projects carried out in Europe, Brazil, India and China, and will take advantage of social innovation and the good ideas that move around the world. The project will consider food networks and new ways of looking, for example, at food, aging, childcare and creative communities in Africa. The project will consider existing traditions, networks and the sense within communities. Initiatives on service and production that are based on collaboration will also be considered. There is a need for a paradigm change in Africa. For example, in urban areas even poor people make consumption choices and there are health problems related to such consumption patterns.
- 140.** One main issue is the lack of Internet accessibility – this means that people are at risk to be excluded from information and to take part in programmes and activities presented on the web. The IT infrastructure remains underdeveloped in the region, as the penetration rate of telecommunications is only about 9% and of the Internet only about 3%. If South Africa is excluded the penetration rates are much lower. However the trends are favourable, with a large effort to increase equipment availability and improve telecommunications infrastructure in most African countries. From 2000 to 2004, the number of personal computers rose by 83% and Internet usage in sub-Saharan Africa had increased steeply to about 24 million people in 2005.
- 141.** Africa's stock of secondary and tertiary-level skills is small and its quality highly variable and undermined by mortality from infectious diseases and by emigration. African nations need to produce a larger pool of good quality tertiary graduates and postgraduates and to produce them particularly in the disciplinary and interdisciplinary fields relevant to a country's chosen strategy for economic development. In 2004 just 28% of tertiary students in sub-Saharan Africa were enrolled in science and technology fields. Likewise, research output faded as Africa devoted just 0.3% of GDP to research and development, and the number of professional researchers fell. These trends make it

increasingly difficult to provide the relevant knowledge and core skills needed for African nations to boost competitiveness and sustain growth.

- 142.** Sustainable development requires taking longer-term perspectives, integrating local and regional effects of global change into the development process, and using the best scientific and traditional knowledge available. The development process should be constantly re-evaluated, in light of the findings of scientific research, to ensure that resource utilization has reduced impacts on the Earth system. Even so, the future is uncertain, and there will be surprises. Good environmental and developmental management policies must therefore be scientifically robust, seeking to keep open a range of options to ensure flexibility of response. The precautionary approach is important. Often, there is a communication gap among scientists, policy makers, and the public at large, whose interests are articulated by both governmental and non-governmental organizations. Better communication is required among scientists, decision makers, and the general public. Enhancing national, regional and global capacities for carrying out scientific research and applying scientific and technological information to SCP is needed. This includes a need to increase financial resources for global and regional scientific and technological information networks, as may be appropriate, so that they will be able to function effectively and efficiently in satisfying the scientific needs of African countries.

## **4. CHALLENGES AND CONSTRAINTS**

### **4.1 Status of SCP in Africa**

- 143.** Despite the achievements mentioned in the previous chapter, the impact and penetration of SCP activities is still very limited in most countries. Few key activities have been conducted in most countries as part of the implementation of the African 10 YFP. SCP is a relatively new concept in the region and there are only very few examples of integrated SCP activities. There are several examples of activities and efforts targeting particularly Sustainable Production and to a much lesser extent Sustainable Consumption. Sustainable Production and Consumption are mainly approached as separate issues.
- 144.** Sustainable Production activities are focused on cleaner production (CP), on environmental management systems (particularly ISO 14000) and on Corporate Management Practices. More advanced Sustainable Production concepts and instruments, which take a systems view- such as LCA, Product Service Systems and product design -are still in their infancy in the region. There are ten NCPCs, numerous case-studies and training materials. However, National CP actions plans and policies remain to be established targeting key sectors, besides manufacturing industries. Only to a smaller degree has the CP concept been introduced to service sectors and CP activities tend for the time being to be an urban affair. Key drivers should be identified to enable greater CP penetration and impact.
- 145.** The state of Sustainable Production in Africa may be described as being in progress but yet having a long way to go before becoming widely adopted and fully integrated as an everyday practice. The enabling environment for SP adoption is generally poor due to numerous barriers ranging from poor awareness, lack of access to finances, lack of market incentives, lack of information on emerging clean technologies, insufficient human and technical capacity, weak policies and regulations, lack of enforcement capacity etc. Francophone African countries in West and Central Africa show virtually little institutional capacity in CP due to the absence of NCPCs. So far in Africa, SP has primarily addressed how to produce products more efficiently, with only limited

attention given on how to use products efficiently or how to produce the right products. To move towards sustainable production, the service and product components of the CP definition need to be further developed and adopted while the CSR concept need to be mainstreamed.

- 146.** The regional capacity for promoting Sustainable Consumption is far less developed than for Sustainable Production. There are no strategy or policy frameworks for promoting Sustainable Consumption at the national level. Compared to sustainable production, sustainable consumption is a far less developed and less recognized concept. This is due to the wide range of different consumption styles and patterns that exist alongside each other and within countries. The region is still dominated by people living in poverty. Alongside this group there are a large number of people in urban areas with lifestyles having a large environment footprint. Another important explanation for the little attention paid by government to sustainable consumption is that consumption is often perceived as necessary for economic growth. Level of consumption is used to measure economic growth in most economic models. More sustainable consumption is perceived by authorities in the lowering of economic growth though the benefits resulting in reduced costs to society and sustainability achievement are being missed. Also, since Sustainable Consumption is a relatively new concept, consumer activism, when it exists, is still focused on prices, quality and consumer safety. Sustainable consumption still remains to be mainstreamed in the consumer movement. There is also a general lack of capacity on sustainable consumption tools.

## **4.2 Challenges and Constraints in Implementing SCP Activities**

- 147.** Despite the great variety among the 58 countries in Africa, many problems that they face in designing and implementing SCP are similar. Often, those problems could have similar solutions, applicable and transferable to many other countries. Priority areas for SCP will differ from one country to another, but the following challenges and constraints seem to be commonplace in most countries:

- (i) Poor Education and lack of awareness on the benefits of SCP among all stakeholders.
- (ii) Government failures (lack of legislation and/or enforcement; weak recognition of SCP in most policies; weak institutional capacity for monitoring and use of economic instruments; absence of enforceable pollution standards; lack of decentralization to local authorities; lack of appropriate consumer rights, policies and legal instruments for promotion of sustainable consumption; incoherent policies).
- (iii) Lack of human and technical capacity (lack of capacity for product development and formulating bankable CP projects in industry; lack of capacity on SCP tools in government; wide scale reliance on obsolete technologies; lack of information on emerging clean technologies).
- (iv) Economic (Financial instability of NCPCs; under-pricing of natural resources; lack of appropriate financing mechanisms for SCP investments; lack of financial incentives; widespread poverty).
- (v) Systemic (lack of monitoring; lack of systematic training of employees and lack of R&D in Industry; lack of reliable data on pollution and resources use; inadequate research on SCP; consumer traditions).
- (vi) Organisational (poor institutional setting; absence of collaborative projects and exchange programmes in the region to facilitate knowledge sharing).

**148. *Creating Awareness:*** Awareness about SCP and about how SCP links to other concerns and priorities in society is the most important factor to address in order to create support for SCP. Only by explaining that SCP would contribute to meeting other objectives, will SCP be perceived as a priority in its own right by stakeholders. Awareness is needed to support new policies, legislation, education, research, and consumer life styles. In order to achieve commitment and public support for any sustainable consumption program, it is crucial that people understand why sustainable consumption is important and what it means in practical terms. It is a common misunderstanding that sustainable consumption means “consuming less” to many people, and that it has no reference to other, may be more urgent priorities of concerned stakeholders. In order to make further progress on SCP, there is therefore a need for massive education and

awareness campaigns at all levels of society. Long-term education programs and short-term aggressive public awareness campaigns, targeting businesses, civil societies, financing institutions etc will need to be part of any SCP strategy.

**149. *Government, Policies and Legislation:*** For African countries, leapfrog changes in systems of production and consumption offer the possibility of a development path that will de-link economic development with environmental degradation. However, SCP does not yet feature prominently on the political agendas of African countries though it can provide an ideal framework for achieving development goals such as the MDGs. There is a need for high political support for SCP and to develop national strategies and integrate SCP actions into national sustainable development or poverty reduction strategies. National and Local Governments are therefore key stakeholders to initiate SCP Programmes. They have the power to adopt tools and mechanisms required to achieve coordination among a wide range of stakeholders in society. Governments across Africa however are not doing enough in creating the right conditions for SCP, in developing a consistent policy framework and in leading by example. National action plans on SCP do not yet exist in most countries. The existing institutional setting does not favour planning and implementation of SCP and better coordination is needed among the various institutions responsible for environmental protection and sectoral policies. Integrating sectoral policies and environment concerns is still lacking. For example, spatial planning and municipal management are still not coordinated with environmental and SCP considerations, although they could be used to good effect in energy supply, building, transport and waste management. There is room for dramatic improvement in environmental management in industry but more effort is needed by government to improve compliance with environmental legislation. Also despite their effectiveness, limited economic incentives are in place to stimulate business and consumers to reduce the environmental pressures they exert. Inconsistent enforcement and the low level of pollution fines do not provide strong incentives for more proactive environmental management. Moreover, many existing environmental institutions suffer from a weak mandate, overlapping or poorly defined responsibilities, frequent restructuring, and inadequate budgets, particularly at the local level. Coordination between various environmental bodies, including central and local authorities, remains a major challenge. Environmental policy-making is also negatively affected by limited

systems for collecting and processing pollution and environmental data. In many cases information that has been collected locally is not compiled at the national level to support policy-making. Concerning consumption patterns and their environmental impacts, little data of relevance have been collected at all, although this is not a phenomenon limited to the Africa region.

**150. *Stakeholder Cooperation:*** Lack of stakeholder cooperation and poor relations with authorities are also constraints to SCP. Cooperation between different stakeholders in the production –consumption system (producers, consumers, authorities, retailers, NGOs, advertising agencies, designers, financial institutions, etc) is generally poorly developed in Africa. This may be due to the culture of information confidentiality and a lack of involvement of stakeholders during project formulation. The vast majority of companies in the region pay little or no attention to improving their sustainability records. On the other hand, government agencies are often reluctant or incapable of engaging in partnership with industry to promote SCP. There is a need for more integration of NCPC activities with those of appropriate government agencies.

**151. *Creating Market Conditions:*** The market demand and supply for SCP solutions is poorly developed and it is necessary that they be created and maintained in order to make changes in the consumption-production system viable. Public procurement and greening of supply chains by private sector are examples of initiatives that can have a significant effect in creating the right market conditions. Labelling schemes can also help to address impacts of products during the use and disposal phases, supporting regulation in the promotion of sustainable production. The Swiss Fair Trade Label in the Kenyan Flower industry is an example. Extended Producer Responsibility is another tool that can be promoted for example in the electric and electronic goods industry. Voluntary agreements can play a large part in helping to compensate for weak regulatory enforcement capacity in the region.

**152. *Integration into the local context:*** For a majority of people in Africa, affluent consumption is yet only a dream and the grim reality is rather characterized by poverty and lack of access to basic services. This also offers opportunities for leapfrogging from the subsistence -based consumption to a more sustainable livelihood by bypassing



the unsustainable affluent consumption pattern. Many traditional values and cultural ideals in Africa are better in tune with SCP than with affluent consumption. Opportunities at local level for adopting existing values and cultural norms, rather than importing unsustainable consumer ideas from abroad, should be evaluated and taken advantages from. Economical, environmental and lifestyle evidences of adopting SCP are key issues to convince the local community for active contribution. Small-scale projects, which could easily be replicated elsewhere upon successful implementation should be implemented. The involvement of the grass-root level is necessary and there is a need to support community pressure groups promoting SCP through pilot projects. Many of these activities and partnerships already exist but resources are needed to scale them up in a region, or training, adaptation and financing are needed to diffuse to other regions.

**153. *Knowledge Sharing:*** There are occasional campaigns of action directed to reducing consumption of particular sensitive resources such as water or electricity, or changing the patterns of consumption of specific goods or services such as plastic carry bags. Unlike actions and policies intended to shift consumption patterns in whole economies, these campaigns of action are often conducted in localized areas-regions, cities, towns, communities. Examples include shifting modes of transport from cars to public transport, reducing water consumption, reducing energy consumption, shifting energy consumption towards renewable energy and reducing and recycling household waste. Such campaigns arise when a relatively focused pattern of consumption is recognized as having detrimental localized effects. Creating a database of case studies of such actions could provide a valuable resource and inspiration for communities interested in dealing with local consumption issues, particularly in critical resource areas such as water and fossil-fuel energy.. There is a need to support the development and implementation of concrete demonstration projects with support from donors and then replicate them elsewhere, making for example better use of the Internet and distance-education to create easy access to knowledge.

**154. *Involvement of the Development Cooperation Community:*** The effective development and implementation of sustainable consumption and production in African countries could be significantly facilitated through the mainstreaming of SCP in the priorities and

decision making criteria of bilateral and multilateral development financing agencies. Development partners should be called upon mainstreaming SCP approach in their bilateral financing procedures. The launching of the specific Task Force - “Task Force on Cooperation with Africa”, led by the Federal Government of Germany, is important in that respect.

- 155. *Strengthening NCPCs:*** NCPCs are the real drivers of the SCP concept wherever they have been established. However, the ability of these centres to deliver better results is hampered by various factors including low funding and understaffing.. Although NCPCs have achieved much, it is yet not enough to create national-level impacts. The independent country evaluation reports prepared in the framework of the Independent Evaluation of the UNIDO-UNEP Cleaner production(CP) programme show that most NCPCs appear now to be in the implementation stage compared to an initial incubation stage. There is good evidence of output in Information Dissemination and Awareness Creation, In-Plant Demonstrations, Training, Policy advice and to a lesser extent in Technology transfer. It is recommended that NCPCs continue their network-facilitator role and to improve the relevance, effectiveness and efficiency of their service delivery. They further need to establish and facilitate an effective and permanent learning and development platform from the diverse CP initiatives nationally and regionally and develop a transparent system for monitoring of CP-achievements as a basis for further evidence-based improvements in CP promotion, training, methods and policies. Strategies to enable NCPCs play a greater role towards scaling up the initiatives taken so far are needed. Few partnerships tend to exist 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. Most of the CP activities driven by NCPCs are still focused on the industrial sector despite potential opportunities in the agricultural, natural resources and services sectors. Efforts to promote rural development and alleviate poverty can be effective if rural incomes can be raised through small-scale manufacturing activities, for example in agro-processing and CP will have a major role to play. Much needs to be done by NCPCs to train national experts in identifying and formulating cleaner production investment projects to help in obtaining financing from funding institutions and in providing policy advice

to national and local government to favour the SCP concept. Funding for CP has so far mostly relied on Government and/or international donors, mainly in demonstration projects. Initial improvements through CP are usually achieved at little cost. In the initial stage, the focus of NCPCs was to promote these low-cost improvements. But it is clear that the industries will have to implement more consequent changes such as the adoption of Environmentally Sound Technologies (EST). Unless alternative innovative financing options emerge in the short to medium term, it is likely that SCP activities will remain NCPC-guided, donor funded, program/project based-hence unsustainable. Much needs to be done by NCPCs to train national experts in identifying and formulating cleaner production investment projects to help in obtaining financing from funding institutions and in providing policy advice to national and local government to favour the SCP concept. With rising raw materials and energy prices in the future, increasing eco-efficiency will remain the most optimistic strategy for sustainable production with strong support from industry and NCPC will have a major role to play in that respect. The three major barriers for companies in developing countries are that they often do not know how to apply for investment funds, they do not know where to apply for Cleaner Production-related investment funds, and financial institutions do not recognize the added value to them of investing in Cleaner Production. All centres need to have capacity built in them to assist their clients with investing in Cleaner Production. There is however an urgent need for structured capacity building of NCPCs staff in Sustainable Consumption policies and tools.

- 156. *Sustainable Consumption Tools*:** Sustainable consumption tools are very poorly developed in the region. Tools aiming at raising consumer awareness and at providing information to consumers about the product they use are relatively better developed than tools constituting systematic approaches to sustainable consumption. The exception is external waste recycling systems, which are comparatively better known and in some countries implemented. Eco-labels are a good example of tools used to provide information about the environmental standards of a product. However, there are very few eco-labelling schemes successfully implemented in Africa and methodologies on how to develop and implement eco-labels need to be devised. For example, while the Marine Stewardship Council's (MSC) eco-labelling programme, which focuses on achieving SCP of seafood receives wide acceptance worldwide from the fisheries

sector, consumers and supermarket chains, uptake by African fisheries is slow due to certification costs, data requirements, awareness and capacity as well as stakeholder participation. To overcome this slow uptake, the MSC addresses key challenges in Africa by providing guidance for assessing data-deficient fisheries, outreach programmes, stakeholder involvement in MSC governance bodies, establishing partnerships, facilitating funding opportunities and developing local certification capacity. A cornerstone for truly integrating sustainable consumption and production are systemic approaches such as Life Cycle Assessment and Green Procurement. These tools are presently almost absent in all countries, being confined for the time being to the academic and research community.

- 157. *Monitoring, Indicators and Research:*** There is a lack of reliable data on pollution and resources use, industrial emissions, or environmental impacts of consumption and these constitute major obstacles to the development of targeted and effective policies and goals. There is also a lack of relevant SCP indicators in national statistics. The importance of having good indicators cannot be overstated. What is not measured will be ignored. Few research is being carried out at national level on consumption and production patterns.
- 158. *Capacity Building:*** Many countries face a number of constraints related to low skill levels and limited entrepreneurial culture. Skills development is important in the context of SCP. For example, environmentally sustainable technologies tend to require higher skill levels. . It is also essential to improve institutional capacity to achieve more SCP. There is a need to develop a critical mass to implement SCP activities.
- 159. *Knowledge and Information sharing:*** A key opportunity for addressing the above challenges lies in regional cooperation due to the fact that countries often face similar problems. Many successful initiatives have been implemented at local level, in such areas as energy efficiency, waste management, buildings, transport and quite a few of the lessons learned are applicable and replicable throughout the region.

### **4.3 SCP Challenges in specific sectors**

**160.** African countries face many challenges related to a weak policy environment, limited access to the latest technologies, inadequate local awareness of environmental issues, a predominantly unskilled labour force, whereas sustainable industrialization tends to require higher levels of skill. African countries are latecomers to industry and, as such, face additional challenges including those that emanate from the pattern of economic transformation and an increasingly competitive environment that does not allow the opportunity for learning. Africa lacks capacity, a conducive 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 in Africa and the quality and standards of local products are rather low. There is limited research and development, innovation, diversification and technology diffusion. Limited skills hamper the exploitation of the potential of knowledge-based industries. Infrastructure, energy and water bottlenecks make the transition to sustainable industrialization more difficult. Much of Africa has also failed to take advantage of the opportunities provided by globalization such as greater trade liberalization, easier transfer of capital, technology and labour, as well as greater attention to environmental issues in world trade. Rather, there have been capital flight and net outflows in skilled labour. Africa lacks appropriate industrial development strategies to facilitate and maximize the integration of large-scale industries, mainly concentrated in the extractive sector (e.g. oil, gas and minerals) with other sectors of local economies. Africa 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, worsened by weak industrial associations. Data about pollution and resource use in industrial companies, as well as industry sector specific data sets are not systematically collected and published in African countries. The absence of reliable data obstructs the development of realistic, targeted and effective policies on environmental management in industry, and hinders measuring progress towards more sustainable industrial production. The challenge for all countries in Africa remains to better address sustainable industrial production on a strategic level, to ensure compliance with relevant legislation, to promote market-based provision of relevant

services such as EMS and audits and to ensure that financing mechanisms exist which favour implementing eco-efficient technologies.

- 161.** Progress in implementing environmental management in enterprises in Africa has been limited. Compliance with environmental regulations does not currently represent a strong driving force for companies to improve significantly their environmental management. African countries face many challenges related to inadequate local awareness of environment issues, a weak policy environment, limited access to the latest technologies, a predominantly unskilled labour force and a competitive environment that does not allow the opportunity for learning. African countries account for a negligible share of ISO 14001 certifications issued worldwide and there are very few examples of CSR projects in the region. Among the various services supporting environmental management in enterprises, only EMS services are provided on a commercial basis. All other relevant services continue to be supported mainly through donor funded programmes.
- 162.** Some of the issues hampering effective CSR practice in Africa include poor enforcement of legislation, largely absent civil society scrutiny, relatively weak consumer activism for responsibly produced products. The immediate pressure on businesses to effect change voluntarily is also largely absent. Few consumers are sufficiently informed or able to pay a premium for “responsibly” produced goods. Furthermore, given that financial margins are generally very thin, companies are unlikely to adopt higher standards voluntarily unless there is a clear business case. In effect, there are relatively few incentives for businesses to adopt responsible or “pro-development” practices.
- 163.** Water provides an important link not only to energy and industrial development, but also to agriculture. Integrated water resources management (IWRM) is a planning and implementation process that encourages a community-participation approach for pursuing forward-looking management and development of water resources. Developing countries need to be assisted with the preparation of integrated water resources management plans, in accordance with the JPOI. Governments in Africa face a twin challenge: to close the gap in rural areas-where only two in five people have

access to water supply and fewer than one in five have access to sanitation-and to keep up pace with rapid population growth in urban areas. The concentrated nature of the water demand for cities poses a heavy burden on limited local water supplies. Utility performance in WSS in Africa is mostly very poor. There is a need to simultaneously increase investments and to build implementation capacity by strengthening institutions.

**164.** The development and promotion of innovative ways of providing water and sanitation services to the large segment of the population is another key challenge with respect to meeting basic needs in the region. The disadvantages of the conventional approach are that they are water and energy intensive and require high skills and often imported equipment. Rainwater harvesting systems, small scale irrigation systems and mini-hydropower systems can be effective low-cost means of expanding the productive use of water resources without large investments. Sanitation processes such as Ecological Sanitation is appropriate for warm climate which requires no energy, only low skills and simple construction. The process also generates nutrients, which could be used for food production. Senegal, which is increasing its urban sanitation coverage with on site sanitation systems as its main focus is treating the increasing volumes of faecal sludge in decentralized treatment plants in collaboration with the Department of Water and Sanitation in Developing Countries at the Swiss Federal Institute for Environmental Science and Technology. The idea of "Closing-the-Loop" in excreta and waste management is not new in Africa; it has been applied for many years. Many pilots schemes for municipal composting (with source separation of refuse) and household composting latrines (in cases where re-use of stabilized excreta is advocated strongly) has been tried with little follow-up. Experience, so far, shows little has been achieved in many previous donor-driven attempts at promotion of ecological sanitation systems in Africa. But there appear to be opportunities for increasing demand for ecological sanitation in Africa.

**165.** Competition for clean water will only intensify further. However, as the ABREW study has shown (UNEP, 2008), awareness is still limited among water intensive industries such as the brewery industry, government and public. Currently, the primary drivers for reduced water consumption and pollution reduction are corporate environmental policies of multinational companies active in the brewing industry. Other drivers, such

as regulation, water fees or general public pressure appear to be relatively weak. Much can therefore be done to enhance the efficiency and environmental performance of the African brewery sector in the framework of a structured programme of cleaner production process and product improvement.

**166.** The challenges and implementation constraints for SCP in the energy sector could be summarized as follows: inadequate policy, legal, regulatory and institutional framework 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 are 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 high cost in production, transmission, distribution and depletion of energy resources; 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 programs and projects. The challenge in Africa is also to move away from traditional bio-energy with its limitations and impacts on the environment and human health towards modern bio-energy, which provides significant opportunities for sustainable development in Africa. However it is wise to put in place the necessary safeguards to ensure sustainable management of the entire production-consumption chain.

**167.** Two of the major problems regarding food consumption and production are the large use of water in food production and the huge losses of food in the food chain. Waste of food along the food chain means that twice as much food is produced than actually consumed resulting in high water and energy use. In order to reduce water consumption – which is of great concern in Africa – it is urgent to minimize food waste. While in developed countries losses are large in the consumption phase, in Africa losses are largely due to lack of good harvesting technology, transportation, storage and vermin.



**168.** The construction sector is one of the biggest consumers of raw materials, other than fossil fuels, in most countries. The impacts of extraction and fabrication of construction materials in African countries are not documented, but it can be assumed to have impacts on land use, impacts related to energy and water consumption and to generation of quarrying waste. The environmental impact of the use phase of buildings mainly relate to pressures arising from primary fossil fuel use either directly in buildings or at power stations and district heat plants. Concern over sustainability in the building sector is focused on three issues: energy efficiency, construction waste, and indoor air pollution. Ideally, sustainable buildings should provide for these needs for all social groups as efficiently as possible with the least environmental impact. Typically, 80–90% of total energy used during the lifespan of a building is consumed during the use phase (Ala-Juusela *et al.*, 2006). Therefore, increased investment in the design and construction phase, aimed at reducing energy consumed in the use phase, can give strong environmental and economic benefits over a building's lifetime. Conversely, a lack of consideration and awareness at the design and construction stage can lead to a building which is predisposed to high energy consumption, regardless of the behaviour of its occupants. The technology exists today to create sustainable buildings entirely independent of external energy supplies and with lower lifetime costs than conventional buildings. Typical barriers to the widespread implementation of these technologies include real estate markets which place emphasis on cutting costs of construction, a lack of building codes for architects and contractors which would promote construction of sustainable buildings and a widespread lack of knowledge and resistance to change within the construction industry. A sustainable buildings policy needs to tackle all of these barriers. Moreover, it must optimise interactions with heating, electricity and water distribution systems in order to increase efficiencies. A sustainable building policy should also focus on improvements in efficiencies of the existing building stock. More efficient building infrastructure will also yield social benefits by increasing access to and affordability of comfortable inner environments, considerable economic gains, and an increase in the security of the energy supply. Finally, the construction industry is one of the sectors that consumes the greatest amount of material resources. Virgin material consumption can be reduced by extending the useful life of buildings, improving material efficiency, greater use of renewable materials, integrating reusability into building design, and mobilising recycling and reuse of demolition

waste. However, few data available demonstrate that the reuse of demolition waste is unlikely to occur on a significant scale.

- 169.** A major challenge for sound chemicals management relates to inadequate awareness of policy makers on its link with poverty reduction and sustainable development, to engender the political will and support at regional and national levels. This results in the lack of integration of chemicals management priorities into sustainable development strategies and efforts and poor synergies with priority sectors such as health and agriculture. Another important constraint is limited resources and capacity to ensure appropriate government action in effective chemicals management, facilitation of necessary regulatory reforms, effective enforcement of legislation and monitoring the use of chemicals. The gross lack of practical guidance and data on the economic impacts of chemicals management are also major constraints. Others include: lack of and access to cleaner production systems and technologies for chemicals and waste management; poor capacity to deal with poisoning and contamination; and poor management of obsolete chemicals, stockpiles and waste.
- 170.** Proper treatment of municipal waste remains a problem. In many municipalities the waste management systems have to be modernized. The lack of statistics makes it difficult to estimate the amount of waste in many African countries. Only limited data are available on urban areas and often amount to estimates. There are technical, financial, institutional, economic and social constraints linked to the issue of waste management. Furthermore, end-of-life vehicles, waste electronics, household appliances, packaging and construction waste are on set to increase. Development of action plans for Integrated Solid Waste Management at city-levels, better enforcement of legislation and introduction of financial incentive mechanisms for waste management are necessary to achieve more SCP-oriented waste management.
- 171.** Countries lack adequate institutional, technical and technological capacities to effectively deal with hazardous wastes generated in Africa and to monitor their illegal importation. Countries also lack adequate environmental regulations and standards for the proper design of hazardous waste treatment and disposal facilities, thus resulting in the disposal of wastes in environmentally unsound manner. Additionally, there is a

general lack of the awareness of the effects of hazardous wastes and their residue. There is also a lack of adequate health care facilities and personnel for adequate diagnosis and treatment of hazardous waste-related health problems. Poverty is a major constraint to the success of African efforts in the area of Environmentally Sound Management of Hazardous Waste. Other constraints identified towards achieving environmentally sound management of hazardous waste in Africa countries include: lack of adequate information on the volume, location and sources of hazardous wastes generated; lack of knowledge and skill to identify technologies affordable by African countries for the environmentally sound management of hazardous wastes; lack of public awareness of the nature of hazardous waste and the danger they pose to their health and environment; lack of political will to put in place appropriate legislation to deal precisely with the issue of hazardous waste management; inability to measure and quantify the level of degradation that has occurred as a result of unsound management of hazardous wastes; and insufficient financial and human resources. As regards trans-boundary movements and illegal disposal of hazardous wastes, poverty is a motivating factor. Most African countries have relatively high levels of poverty, low Gross National Product (GNP) and high foreign debt, hence importing hazardous waste as a source of foreign exchange, can be highly tempting. Second, lack of stringency of environmental regulations such as requirement for high performance and health-based standards for the design, siting, and closure of toxic waste disposal facilities, and the low level of implementation of existing policies mean that toxic waste treatment and disposal facilities can be built cheaply and without considerations for adverse human health and environmental effects. Third, the level of corruption in some countries encourages government officials to receive bribes and to surreptitiously import toxic waste into their countries. Fourth, most sub-Saharan African countries lack the technical expertise necessary for the proper identification of both the elements of the imported hazardous waste and its human health and environmental impacts. The exporting companies are aware of this lack of technical expertise on the part of these destination countries; hence they often disguise the hazardous wastes as useful commodities that are relatively harmless (Olurominiyi, I., 2006).

## **5. LESSONS LEARNED AND THE WAY FORWARD**

### **5.1 SWOT Analysis of SCP in Africa**

#### **172. Strengths**

- Political will and commitment through AMCEN, the African 10-YFP, ARSCP as a regional networking institution and the Marrakech Task Force on Cooperation with Africa.
- Already some on-going SCP pilot projects (but which need to be scaled-up).
- An existing network of ten NCPCs in the region.
- A number of other institutions which deal with innovation or knowledge creation exist (however the potential for SCP is still not a priority in their mandate).
- Increasing importance of the service sector in the economy which has less environmental impact/GDP output.

#### **173. Weaknesses**

- Low level of awareness of stakeholders on the benefits of SCP.
- Limited enforcement capacity and limited use of economic instruments in policy making.
- Environment continues to be perceived as an « add-on cost » of doing business.
- Lack of economic incentives and lack of information to consumers for buying sustainable products such as energy-efficient appliances.
- Demand-side management policies in energy and water sector poorly developed.
- Low development of renewable energy sources.
- Lack of systematic data collection on pollution and resource use in industry.
- Few companies holding environmental certifications.
- Limited ability of SMEs in industry, hotels and services sector to adopt cleaner production.

- Lack of demonstration projects/lack of experts in SCP.
- Low level of waste recycling and limited development of the extended producer responsibility policy.
- Increasing use of private cars.
- Few research on consumption and production patterns at national and regional levels.
- Lack of involvement of Consumer Associations/NGOs in SCP.
- Awareness/Educational campaigns on efficient resources use inadequate.
- Low level of recognition of the contribution of SCP to the development process by bilateral donor agencies at the country level.

**174. Opportunities**

- The on-going economic and social restructuring offers a unique opportunity for leapfrogging and avoid repeating the mistakes of developed countries.
- Integration of SCP into new policies being drafted.
- Inter-Marrakech Task Forces cooperation in Africa.
- Introduction of new environmental policy tools (economic instruments, extended producer responsibility, corporate environmental reporting, etc).
- Inflow of environment friendly foreign investment.
- Sustainable Government practices.
- Increasing importance of CESR in business.
- Use of NGOs expertise to promote SCP at local level.
- Development of a Waste Recycling plan at local levels.
- Setting up of NCPCs in more countries especially in Western Africa.
- Increase of competition to force modernisation using best available environmentally friendly technologies.
- Eco-tourism development.
- Development of the ICT sector and e-government

- Development of Sustainable New Cities and Sustainable Buildings.
- Taking advantage of CDM potential for renewable energy development.
- Job creation through an environment industry that develops around the SCP concept.
- National and international awareness of impacts of climate change and the food and energy crisis which is mobilizing political efforts to adopt sustainable practices.

### **175. Threats**

- Lack of political and public commitment for a SCP programme, leading to lack of a national programme and action plan on SCP.
- Weak inter-sectoral and inter-ministerial coordination of SCP activities.
- Insufficient Capacity Building in SCP tools and instruments.
- Insufficient Research and Development expenditure on SCP.
- Lack of integration of SCP in educational curriculum.
- Lack of institutions supporting the execution of innovative projects in SCP.
- Increasing environmental pressure by consumers following the westernised model of consumption.
- Weak media contribution to promoting SCP.
- Insufficient development of environmental policy tools and lack of enforcement capacity.
- Lack of consolidated international financial support for SCP.

## **5.2 Lessons learned**

**176.** The following are some of the lessons learned about the generic vital components needed for SCP strategies, drawn from the analysis during this review:

**177.** Political will and commitment is essential to the effective implementation of the African 10-YFP. The organizational support that has been provided by UNEP together with the political leadership and support provided by AMCEN and the financial support provided by the Marrakech Taskforce on Cooperation with Africa have been highly instrumental for the achievements that have been registered so far and for the significant level of interest amongst development partners to work with the region. The leadership and guidance being provided by the AU Commission, ECA and UNEP in the further development and implementation of the Program should be maintained, if not enhanced. In addition to regional cooperation, international cooperation is important in ensuring program implementation and the leapfrog towards SCP. In this regard, the region's cooperation with development agencies, such as the Government of Germany and the Marrakech Task Forces should be fostered. The ARSCP must be better able to use the opportunity provided by the political commitment through AMCEN, Marrakech Task Force on Cooperation with Africa and the other Marrakech Task Forces to strengthen its strategies and programmes.

**178.** A basic condition for SCP is to achieve general awareness and understanding of the concept among all people. The pilot projects on developing national and local SCP programs have showed clearly that Education and Awareness raising on SCP is one of the prominent cross-cutting issues that need to be addressed. The meaning of SCP as applied to the local context need to be developed and explained through education and communication and SCP has to be perceived as a relevant priority by all stakeholders. In comparison to sustainable consumption, terms such as sustainable production and sustainable development are better known. Possible because of the low awareness and understanding of the concept, sustainable consumption is normally regarded as having a low priority and relevance to national development goals than for e.g. sustainable production. Long-term education programs and short term aggressive public awareness campaigns, targeting businesses, civil societies, financing institutions etc need to be part of any SCP strategy. It is also important to communicate SCP in an innovative way so that it is understood in the context of other issues in which producers and consumers are more interested. For example, energy-efficiency labels can effectively communicate cost savings to which consumers respond.

**179.** Individual initiatives will not bring about wholesale changes in SCP patterns unless there is a national integrated strategy to promote SCP using a range of policies. Governments should develop appropriate national policy frameworks to effectively support integration and development of Sustainable Consumption and Production, and the coordination between different government departments. SCP should be integrated into PRSPs, National Strategies for Sustainable Development (NSSDs) or National Environment Action Plans (NEAPs). Once integrated, a second step would be to develop concrete sectoral action plans or frameworks (e.g. on energy, water, agriculture, transport) that aim to promote and adopt sustainable patterns of consumption and production, with concrete targets and indicators. A “two-pronged” approach of promoting SCP, both as a priority in its own right and as a cross-cutting issue contributing to other priorities is therefore beneficial.

**180.** In the light of the variety of situations in all the countries, it is necessary for Governments to develop, in partnership with a wide range of stakeholders, national SCP strategies or action plans reflecting a country’s specific priorities, and with concrete actions to carry them out. The experience drawn from the four pilot countries on the development of national and local sustainable consumption and production programs taking existing national development policies as a basis, has proven to be an effective way of demonstrating the contribution of SCP to national sustainable development objectives. Besides its direct contribution towards promoting resource-efficiency at all levels of production and consumption, the development and implementation of an SCP program could also be instrumental in promoting synergies amongst the key development sectors outside the Ministry of Environment. In this context, it is recommended for African Ministries to designate a focal point unit for SCP that facilitates the inter-sectoral cooperation in the context of SCP program development and implementation.

**181.** The effective development and implementation of sustainable consumption and production in African countries could be significantly facilitated through the mainstreaming of SCP in the priorities and decision making criteria of bilateral and multilateral development financing agencies. Hence development partners need to mainstream SCP in their bilateral financing procedures.



- 182.** Governments should include SCP indicators in national statistics. These indicators are an essential tool for policy making and give the opportunity for capturing the concept of sustainable production and consumption in statistics. A guidance framework on SCP related indicators for developing countries has been developed by UNEP to guide developing country actors to prepare indicators that better reflect (lack of) progress towards sustainable patterns of consumption and production. Such indicators will be particularly useful for countries planning or in the process of developing SCP programmes, and could also strengthen the monitoring and evaluation framework of national strategies for sustainable development or national development plans. Development of SCP indicators should become a component of any country-level activities to develop SCP programmes.
- 183.** A mix of policies and instruments is desirable for implementation of SCP, with financial and economic instruments, information tools, and voluntary approaches complementing regulation. Enforcement capacity of regulations and institutional capacity for economic instruments need to be strengthened in all African countries.
- 184.** In contrast to the difficulty of targeting individual consumers, there is more consensus on the tools for targeting institutional purchasing such as sustainable procurement. All African countries and local governments require assistance in starting sustainable procurement, including guidance on specific products.
- 185.** Visible implementation of SCP activities at an early stage is important to demonstrate the concept and to show that it can have a significant impact on the production-consumption system. Examples of such activities include government green procurement programs, waste recycling schemes, SMEs support programs for Cleaner Production, Introduction of Compact Fluorescent Lamps(CFL), Incentives for Solar Water Heaters and Solar Panels, plastic bags, packaging, etc. It is recommended to target only one area initially but that the means to address SCP in that area are enrolled on a wide scale. For example a green procurement program would be implemented by adopting new regulations, supported by partnerships, education, public information,

economic incentives, advertisement, etc. Coordination among partners will thus be established.

- 186.** Capacity building and skills development is important in the context of the promotion of SCP. Tools to support or promote sustainable consumption need to be strengthened and integrated with production activities. Systemic approach such as Life Cycle Analysis (LCA) and green procurement are either nonexistent or still at infancy stage and need to be further developed.
- 187.** Public-private partnerships are highly recommended for the further development of SCP initiatives. National SCP programmes can play a key role in bringing together government, industry, academia and civil society organizations to ensure the development and application of innovative and dynamic policy instruments to promote the application of SCP. The NCPCs for example can play an active role in facilitating supply-chain integration, enhancing the productivity of SMEs and facilitating access of their products to international markets.
- 188.** Sustainability in Africa 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 input and is more efficient in energy use, is based on renewable resources and generates less wastes along the life cycle of a product. There is need for broader adoption and implementation by industry, of values consistent with corporate social and environmental responsibility, such as those embodied in the Global Compact, and to explore an ISO standard on corporate-social responsibility. Companies investing in Africa need to root their CSR practice in African realities.
- 189.** Despite much effort and resources spent by the NCPCs, only a small part of industry has nationally adopted SP. It will be impossible to assist individually each company to realize the benefits of sustainable production. It therefore seems necessary to focus on the demand side, creating demand for SCP, rather than focusing on the supply side. Such demand is created when enforcement of legislation is practiced, suitable economic incentives are established and efficiency improvements offered by SCP provide a

competitive edge. NCPC's areas of focus need to expand beyond industries into other economic sectors. The early years of the NCPC programme have also shown that substantial environmental benefits can be gained from the implementation of relatively simple cheap Cleaner Production options. However, it is equally clear that there is a need to move industry beyond these simple options to start implementing more complex, but more costly solutions. The three major barriers in developing countries are that companies often do not know how to apply for investment funds, they do not know where to apply for Cleaner Production-related investment funds, and financial institutions do not recognize the added value to them of investing in Cleaner Production. All centres must have capacity built in them to assist their clients with investing in Cleaner Production. The Centers, now more mature, still need external support in training and advice in structuring more efficient and innovative services to their clients, especially in the area of technology transfer.

**190.** SCP interventions usually take place at the national level. However, these interventions need to be localized in order to promote ownership at the grass root level to effect greater impact. Economical, environmental and lifestyle evidences of adopting SCP are key issues to convince the local community for active contribution; Small-scale projects, which could easily be replicated elsewhere upon successful implementation, should be encouraged. In order to make further progress on sustainable lifestyles there is a need for massive education and awareness campaigns utilizing TV and media to inspire actions for change to sustainable lifestyles and the active involvement of NGOs. Development and implementation of region-relevant education and awareness programs covering all levels of the society including youth groups constitute an important instrument to address the existing lack of awareness on the contribution of SCP and create the required capacity for promoting sustainable consumption and production in the region.

**191.** The Marrakech Task Forces are important mechanisms that have built North-South cooperation, and are demonstrating the commitment of a number of industrialised countries to provide technical and financial support for the shift towards SCP in developing countries through the development of SCP tools and methodologies and the

implementation of concrete projects. There are potential areas for Inter-Task Force cooperation in Africa in collaboration with the ARSCP and the NCPCs.

### **5.3 Role of Stakeholders in the promotion of SCP**

- 192.** A development towards SCP presupposes that efforts are informed by a holistic approach and build on cooperation between different sectors. This implies that responsibility lies with everyone: central government, local governments, the business sector, development agencies, non governmental organisations, the research community, the media and individuals/households.
- 193.** Governments as both consumers and policy setters have an instrumental role to play in SCP. Central government must take the main responsibility for drawing up frameworks and incentives that guide other actors in the right direction. Information and education campaigns, economic instruments or regulation can influence consumption and production patterns. Central and local governments have an important role to play in creating the enabling conditions and setting good examples such as support for sustainable procurement.
- 194.** The business sector has a role as producer of products and services. One important task for the business sector is to produce goods and services that promote sustainable development and to make them available on the market.. Cleaner Production and optimising resource use helps companies to improve their competitiveness and the demand for sustainable products and services create opportunities. Business and industry can adopt various voluntary instruments and CSR initiatives such as Global Compact, The Global Reporting Initiative etc. Retailers and shops can also influence consumers' choices by their supply of goods , product information and showcasing.
- 195.** Development cooperation agencies need to integrate SCP issues in their sectoral projects as SCP can contribute further to poverty reduction in Africa.

- 196.** Non Governmental organizations are very important in spreading messages on sustainable lifestyles and creating awareness and involvement.
- 197.** The media is also another important stakeholder for pursuing changes in consumption and production patterns. The media has the power to influence consumer preferences toward sustainable products and lifestyles.
- 198.** Household consumption accounts for a significant part of environmental impacts and one important element is to take various steps to create good conditions and make it easier for households to make sustainable choices. This includes availability of sustainable products on the market, infrastructure development, waste management systems, information, education and other factors.

## **5.4 The Way Forward**

- 199.** The region is large and diverse. There are 53 countries in the region, all with their own specific characteristics with regard to economy, culture, language, climate, industry structure, politics etc. Even within most countries the condition varies from region to region, especially from cities to the rural countryside. Therefore the recommended approach for promoting SCP will vary from country to country and within individual countries as well.
- 200.** Priority approaches and actions needed to enhance implementation of programs to effectively address SCP in the region are discussed below under the following four clusters:
1. Institutional and Policy Mechanisms
  2. Supporting Tools and Instruments
  3. Education for SCP
  4. Means of Implementation

Priority SCP projects to be implemented at the regional level in the short to medium term as identified during the Regional Expert meeting on SCP in June 2009 are then

presented.

#### **5.4.1 Institutional and Policy Mechanisms**

An enabling policy framework which covers a broad range of policy interventions is required to influence the activities of key stakeholders. These mechanisms are discussed below.

**201. Support governments to develop and implement target-oriented national and local action plans on SCP**

SCP is a cross-sectoral issue that requires integration between different policy areas. It is recommended to have dedicated National/Local SCP Programmes, as it encompasses economic and social issues besides environment issues. Besides its direct contribution towards promoting resource-efficiency at all levels of production and consumption, the development and implementation of the SCP Programme will also be instrumental in promoting synergies amongst key development sectors. This can be achieved by working with the existing initiatives (UNEP and Marrakech Task Force on Cooperation with Africa) that provide technical assistance, financial support and exchanging best practices for inclusion of SCP into development strategies and sector strategies. UNEP has produced in 2008 guidelines for the preparation of such national programmes on SCP. Brokering access to financial support for development of such Action Plans is also needed.

**202. Coordinate SCP implementation across sectors**

Use sectors or projects with direct government involvement or strong government support to adopt sustainable practices by fully integrating SCP at the design stage (e.g. industrialization, tourism, transport, housing projects, etc.) because much of the value added of SCP resides in ex-ante, cross-sectoral coordination and planning. This can be done by ensuring the active involvement of local authorities and urban planners and by developing an assessment framework to document social and environmental benefits of

cross-sectoral design for SCP pilot projects. African Governments should designate a focal line institution for SCP that facilitates this inter-sectoral cooperation in the context of SCP national program development and implementation.

**203. Enabling national statistical institutes and other producers of statistical information to monitor economic, social and environmental pressures of consumption and production.**

Currently the statistical system in many countries does not allow monitoring of indicators related to consumption and production. Where countries do collect and present such data, it is often in different formats that make comparisons difficult. There are important economies of scale in this activity (nomenclatures are the same, surveys look a lot alike, etc.) This can be done by building upon existing national and international efforts to harmonize nomenclatures, survey methods, and economic-environmental accounting systems. UNEP has produced in 2008 a guidance framework for developing countries to develop SCP indicators.

**204. Promote/ support the integration of SCP in the policies of major development organizations and agencies**

Major development organizations like UNDP, the World Bank, GEF, regional development banks, and national development cooperation agencies play a key role in developing infrastructure and institutions in Africa. Hence, such organizations can play a major role in helping African countries to 'leapfrog' to sustainable patterns of consumption and production patterns. African regional and sub-regional organizations such as the Regional Economic Communities (RECs) also need to be encouraged to integrate and promote SCP through the sub-regional offices of ECA. This integration and promotion of SCP can be done by setting up a dialogue or roundtable between such institutions and by strengthening the existing Marrakech Task Force on Cooperation with Africa. Existing projects elaborated by these organizations that may not be labelled as SCP but that provide successful case studies need to be shared widely.

**205. Promote the internalization of environmental costs and the use of economic instruments**

There is too much reliance on command and control measures in the regulatory framework in Africa. Without the internalization of environmental costs, it may not be in the business interest to invest in cleaner production. There is need to diversify the

policy instruments through institutional and capacity strengthening in economic instruments. For example, a variety of ways to finance waste management need to be explored, including general tax revenues, property taxes, extended producer responsibility, deposit-return schemes, product taxes, Public Private Partnerships (PPP) and partnerships with community organizations.

In Africa there is also a potential for significant growth of payments for ecosystem services which provide a mechanism by which those who benefit from services provided by ecosystems-such as water supply and filtration, flood control, erosion protection, biodiversity conservation and carbon sequestration-can pay for them and those who provide the services can realize financial benefits of their efforts. The domestication and operationalization of Multilateral Environmental Agreements (MEAs) such as the Clean Development Mechanism of the Kyoto Protocol on Climate Change offers a chance to better promote SCP.

**206. Enhance corporate environmental and social responsibility and accountability**

Business and Industry should be encouraged to improve social and environmental performance through voluntary initiatives, including Environmental Management Accounting (EMA), codes of conduct, certification and public reporting on environmental and social issues, taking into account such initiatives as the UN Global Compact and the ISO and GRI guidelines on sustainability reporting. Business and Financial Institutions (Chambers of Commerce, Employers Federations, Development Banks, etc) need to play a more active role in this area. National and regional chapters of the World Business Council on Sustainable Development (WBCSD) need to integrate SCP with their CSR agenda.

**207. Strengthen Demand-side Management Programs**

The promotion of efficient development and utilization of African resources with a particular focus on energy, water and mineral resources is of high importance to the region. The promotion of resource efficiency and demand-side management programs need to be given high consideration by all African countries and action plans need to be formulated in these specific sectors. Water and sanitation projects provide an ideal opportunity for promoting and applying SCP principles in Africa. Demand side management approaches are needed, based on the principle that consumers need



effective water services such as showers, toilet flushing, clothes washing etc. rather than a specific quantity of water. In many cases it may be more effective to meet the growing demand for water services in cities by increasing the efficiency of use of available water supplies rather than by increasing the volume delivered. Water conservation measures such as reducing leakage from the municipal water distribution system, development of rainwater harvesting systems, reusing treated but non-potable water from wastewater treatment plants, having an increasing block-tariff pricing structure and water rationing during severe droughts need to be implemented supported with effective public information campaigns. For industrial use, demand side management approaches include recycling of cooling water and process water and reducing the water consumption of evaporative coolers and boilers. Water audits can be a useful way of identifying cost-effective means of reducing water consumption. Water management in water-scarce areas should also take into account the “invisible” or embodied water contained in products, particularly agricultural products. Water-scarce areas can make best use of limited water resources by exporting products requiring little water to produce and importing water intensive products.

**208. Support the scientific and technical community through public and private sector funded R&D for SCP**

In order to advance technological innovation for cleaner production, and in order to better understand how to influence consumer societies in their transition to sustainable lifestyles a minimum research capacity is needed in any country. In addition to developing and disseminating best practices, research centres/help desks could identify critical economic, social and environmental aspects of SCP that need further research. This can be done by strengthening collaboration, partnerships and funding on research, development and diffusion. For instance, help desks (housed at the ARSCP or in specific universities) could be nodes for dissemination of SCP toolkits developed by Marrakech Task Forces and other stakeholders.

**209. Support the shift in focus on Life cycle Analysis (integrating the whole production and consumption process)**

Sustainable consumption and production is by nature a holistic concept that includes decisions of design, use, marketing and distributions of products as well as their

disposal. The joint UNEP/Society of Environmental Toxicology and Chemistry (SETAC) Life Cycle Initiative has the goal to put life cycle thinking into practice worldwide and African countries should take the opportunity of this initiative to promote it in government and business.

**210. Ensure the Financial and Institutional Sustainability of SCP Promoting Institutions**

Besides setting up NCPCs in Western and Francophone African Countries and broadening the scope of existing NCPCs from CP to SCP, it is important that appropriate business models be adopted in the operation of these centres so that they can implement their strategic plans. With increasing awareness of the benefits of SCP and the effective enforcement of regulations, NCPCs should be able to provide support services and programmes on a cost-recovery basis. The African Roundtable on Sustainable Consumption and Production (ARSCP) should be strengthened to enhance its role at the regional level.

**5.4.2 *Supporting tools and instruments***

Specific tools and instruments that target one or more stakeholders for the promotion of SCP and creating cross-sectoral opportunities are highlighted in this section.

**211. Promote Sustainable Manufacturing and Value Chains**

SMEs represent most of the industrial fabric in all countries. Lack of access to financial, technology and human resources have proven to be critical bottlenecks for the adoption of both green and social best practices. Multinational corporations need to be involved to implement Socially Responsible Supply Chains with their suppliers, often SMEs and adapting and using guidelines for greening the supply chain projects. Consumer groups need to be supported to provide the transparency and push-factor to incentivize participation of more companies in these programs.

**212. Support Sustainable Public Procurement (SPP): Enhance the ongoing work notably that of UNEP and the Marrakech Task Force, to support governments at all levels working to implement sustainable procurement policies and procedures.**

Accelerating SPP is a powerful way to shift consumption patterns. There are a number of African countries wanting to implement SPP. By disseminating the assessment and training materials developed by the MTF on sustainable procurement and by mobilizing financial resources for developing further tools and conducting further training in interested countries can provide the momentum.

**213. Promoting Sustainable Products: Support the creation of databases and the provision of information on sustainable products and address ways to raise awareness among consumers**

Information on Sustainable Products is a powerful tool to influence purchases, especially by governments and firms who want to put in place sustainable procurement. But the development and maintenance costs of such databases are high and partnerships may have to be put in place for their creation. The construction and dissemination of electronic databases of sustainable products need to be supported, including by connecting various national and regional efforts. This can be done through technical assistance from countries having developed such tools for their public/private procurement (US, Japan) to requesting countries and through financial support to those African countries wanting technical assistance on such tools.

Eco-labels are an effective tool to measure and communicate the environmental properties of sustainable products. More successful labels however relate to consumers on issues such as personal health and monetary benefits. Examples include organic food and energy labelling. Most African countries however have no environmental labels and national certifying and accrediting agencies. Eco labelling can become very effective if it is combined with green public and private procurement. The implementation of the African Eco-labelling Mechanism (AEM) should be included in the marketing and information campaign.

In the context of international trade and the on-going talks at the level of WTO, expanding market access to sustainable products should be included in the agenda.

**214. Promoting the production of Sustainable Products**

Businesses are often the most capable actors to make product changes, since many environmental aspects can be prevented at the product design stage and during manufacturing. Businesses can use a variety of analytical tools such as life cycle assessment (LCA), life cycle costing (LCC), risk assessment, ecological footprint for the systematic evaluation of environmental impacts along the entire supply chain or product life cycle. Approaches such as eco-design, life cycle management, supply chain management, corporate social responsibility can be used to collect and analyse life cycle information. These analytical tools and managerial approaches need to be mainstreamed in the business sector in Africa.

**215. Supporting local governments to better integrate environmental, social and economic costs into urban planning and integration of sustainable cities/communities plans in Local Agenda 21**

If sustainability and SCP concerns are not there from the planning stage in long-lived network infrastructure and other capital stock, ex post retrofitting is costly, inefficient, and cannot achieve cross-sectoral synergies. Many sustainability issues can only be dealt with at the local level. There is a need for stocktaking/sharing of best practices to local governments. It is suggested to explore a possible cooperation of ICLEI and UNEP on city level as they have similar priorities and successful partnership on other continents, but not in Africa so far.

The United Nations Environment Programme represented by its Division of Technology, Industry and Economics, International Environmental Technology Centre (UNEP-DTIE-IETC) , is assisting national and local governments to develop and implement integrated solid waste management (ISWM) plans based on 3Rs (reduce, reuse and recycle) approach.. This capacity building initiative targeting local government authorities in developing ISWM plans must be scaled up so as to include all major cities in Africa.

**216. Support Key Production-Consumption Chains**

From an SCP perspective, research shows that three production-consumption chains are the most important ones in developed countries-Built environment and housing, Mobility and Food. Despite a lack of similar studies in African Countries, we can

expect that infrastructure development (including housing and the provision of energy, mobility, water and sanitation services), food, mining and tourism represent the critical production-consumption chains. In Africa, a high part of the population still lacks proper housing and basic sanitary facilities while urbanization takes place. This fuels demand for new housing and utility stock which is met through quick building of houses with low environmental performance. On the other hand, transport systems are being developed with the same negative characteristics as exist in developed countries. Food production and consumption are directly connected to a number of environmental and social issues and offer significant opportunities for SCP programs. New ways of producing food sustainably need to be explored. According to the International Federation of Organic Agriculture Movements, organic farming is a form of agriculture which is based on sustainability principles of health, protection of ecosystems, and social equity. Organic farming has a smaller footprint on the natural resource base, ecosystems and the health of agricultural workers than conventional agriculture. While voluntary, it is supported by certification systems for farms. Certification systems differ from country to country but common elements are the avoidance of use of artificial fertilizers and pesticides, plant growth regulators, livestock feed additives, the existence of minimum indoor space, and access to pastures for animals. However, the ability to enter such profitable markets presents significant challenges for producers in Africa; including the fact that they are relatively small in terms of traded volumes and that they require substantial investments in developing certification bodies and securing recognition for that certification in developed country markets. It is to be noted that most of African agriculture is organic yet the benefit of it is not captured by Africa due to the lack of certification system. . Indigenous NGOs and farmers' groups are particularly active in organic field in East and South African countries such as Kenya, Uganda, South Africa and Zimbabwe. It is likely that for some years to come the market for organic products will continue to be driven by demand for exports to the EU, rather than by demand at home.

The Marrakech Task Forces and the NCPCs have a key role to organize international experience exchange, knowledge brokering, financial brokering and initiation of experimental and testing projects in these key production-consumption chains.

**217. Create networks of excellence on SCP, particularly linking African countries with developed countries and with each other**

SCP has so far been perceived mostly as a developed country concern. Specific solutions and implementation methods have to be assessed or otherwise designed and adapted for African countries. Applied research and pilot projects on SCP need to be linked in African universities while centres of excellence such as the NCPCs can deliver trainings such as those developed by the Marrakech Task Forces.

**5.4.3 Education for SCP**

Education and information on SCP influence producers' and consumers' behaviour and values and is one of the prominent cross-cutting issues that need to be addressed for the promotion of SCP.

**218. Develop and disseminate SCP modules for education curricula at all levels (schools, college, public service, on-the-job training)**

For SCP to succeed, the values of people have to be changed starting from a young age and a wide array of educational and training institutions have to be used. Building on the preliminary curriculum development work of the MTFs on education and sustainable lifestyle, curricula needs to be developed adapted to each grade level. At the college and university level, SCP curricula specific to Science, Engineering and Management Faculties must be developed. The project "Introducing sustainable lifestyle and sustainable entrepreneurship into African universities and colleges" is expected to be launched at the end of 2009 and will target students in African universities and will help to introduce the concept of SCP as an opportunity for students to elaborate business ideas. In parallel to formal education programs, informal education on SCP should also be carried out targeting for example women, employees and journalists and other media practitioners.

**219. Support governments wanting to promote low-resource intensity societies/lifestyles**

Without involvement of governments, a shift to more sustainable consumption patterns will occur much more slowly. There is a need to take stock of what works on shaping

consumer preferences and then publish guidelines and provide technical assistance to governments. Public communication and advertising have a key role to make SCP understandable and fashionable. Communication campaigns on SCP will have to be devised so that it is understood in the context of other issues in which consumers are more interested such as climate change, economic growth and poverty reduction, etc.

**220. Encourage and leverage forums on alternative ways of consuming (including NGOs, community groups, cooperatives, and consumer groups)**

Awareness is still insufficient among policy-makers and other stakeholders and widening the net of stakeholders will allow a more rapid diffusion of ideas and concepts. Networks and think-tanks dedicated to SCP need to be supported by governments.

**221. Create a resource repository and translation facility. This can include best practices databases**

Existing SCP activities result in a wealth of best practice examples, guidelines, tools, etc. They must however be made available in a library-like e-system and, where possible, be translated for practical use. Resources need to be made available to translate tools, materials, best practices on SCP into all major UN languages. All SCP practitioners will benefit, especially those in non-English-speaking environments.

**222. Upscale traditional knowledge and practices and experiments with local sustainable communities-stimulating grass roots sustainable action**

Many local traditional knowledge and practices in Africa have SCP values and merits and could be up-scaled and widely disseminated. There is also vast array of examples showing that consumers and citizens can be drivers for change to SCP. The existing MTF on Sustainable Lifestyles and Education for Sustainability can play a major role in networking, brokering, initiation of projects and reflection on this topic. Using the curriculum modules and tools developed by the MTFs on education and on sustainable lifestyles (e.g., Creative Communities for Sustainable Lifestyles) communities can be helped to imagine their sustainable future and develop a plan to get there. Systematic SCP education and awareness campaigns need to be conducted-for example on energy

and water use efficiency- using national TV channels and other media to inspire actions for change to sustainable lifestyles

#### **5.4.4 Means of implementation**

The array of above programs needs to be supported. Many countries have ideas or needs with regard to SCP policies and implementation, but lack the finances, knowledge or institutional capacity to implement them. Brokering access to knowledge and financing, and networking to facilitate experience exchange are the logical answer. This section indicates the necessary mechanisms to implement the above named programs.

##### **i. Institutional Framework**

**223.** An effective institutional framework at national, regional and global level is crucial for the promotion of SCP. It is important to enhance the roles of existing institutions and initiatives such as the NCPCs, the ARSCP, the Marrakech Process and the Marrakech Task Forces. Countries should also establish appropriate institutional framework at the national level including the designation of a focal institution for the promotion of SCP.

##### **ii. Mobilisation of financial resources**

**224.** The SCP action plan will be an instrument providing strategic intent and a brokering function for linking demand for actions for SCP and supply of supportive resources. There is a whole array of programs and support structures that can help such as the GEF, EU funding programs, bilateral donor agencies at the country level, etc. An SCP Action Plan would provide donors with a coherent agenda of useful activities and projects to be implemented. Developed countries need to provide financial support for demonstration and other specialized projects at the countries level to assist African countries to develop, implement and monitor national SCP programs.



- 225.** Many pilot projects aimed at demonstrating the benefits of SCP are donor funded. The challenge is to institute appropriate financing mechanisms that ensure the sustainability and replicability of projects. In Mauritius, the Minister of Finance in his 2008-2009 budget speech created a special fund (the “Maurice Ile Durable” Fund) to support renewable energy, energy efficiency and waste recycling. The Fund mobilizes resources from taxes, government subsidies, development partners, carbon credits and the private sector including airlines offsetting their carbon footprints. Other African countries could take similar steps as a demonstration of governments’ commitment.
- 226.** The financial sector should be better involved in the SCP agenda so as to increase investments in sustainable infrastructure. This can be done by promoting dedicated public and private fund mechanisms to enable bundling of small-scale enterprises and projects
- 227.** Public-private partnerships on SCP need to be strengthened with the aim of making better use of skills and resources

**iii. Technology transfer and capacity building**

- 228.** There is a need in any given country to develop a critical mass of professionals for implementing SCP activities. There is a need to build capacity that is responsive and inclusive of social and environmental factors in investment decisions related to infrastructure projects. There is also a need to build institutional capacity for planning, analysis and modelling, using specific national and regional data to inform decision making and policy development. Development partners need to provide resources to African countries to meet their capacity needs for training, technical know-how, and strengthening national institutions. International development partners should enhance their technical and financial support to enhance implementation of NEPAD’s initiatives and to support developing action plans, develop metrics for best SCP practice and to monitor progress.
- 229.** The NCPCs already play a role in technical brokering and this can be enhanced and better structured with the collaboration of the Marrakech Task Forces.

*iv. **Information and outreach***

- 230.** Outreach need to be developed to 3<sup>rd</sup> parties relevant for implementing the SCP agenda. Many agencies and bodies perform activities that are related to SCP-ex UNDP, World Bank etc. Internalizing SCP principles in their work will be of high value for the SCP agenda in Africa. The current Marrakech Process already includes an activity in this field and such dialogues need to be enhanced and expanded to other relevant parties.
- 231.** The visibility of SCP should be enhanced by bringing it to the agenda of appropriate regional Ministerial conferences. More use of the platforms of the African Ministerial Conference on Environment (AMCEN) and of the Technical committees of the AU commission should be made.
- 232.** Build, under the ARSCP, information tools and networks on SCP (an interactive web platform, electronic newsletters, seminars, etc).
- 233.** Establish a strong working relationship with the African Environmental Journalists Network and use its members as effective dissemination agents.
- 234.** Utilizing existing NCPCs and other SCP promoting institutions as information nodes at the national level.

*v. **Partnerships and collaboration***

- 235.** The region's cooperation with development agencies in the area of SCP should be fostered.

- 236.** The different Marrakech Task Forces have an important brokering and networking function through more cooperation with the Cooperation with Africa Task Force, ARSCP and the NCPCs. The Task Forces on Sustainable Public Procurement, Sustainable Buildings Construction, Sustainable Tourism and Education cover issues that are relevant for the African region. Cooperation between the Task Forces would strengthen the implementation of respective activities projects and policies.
- 237.** A SCP research initiative collaboration between ARSCP and the various other roundtables such as the European Roundtable can structure research on SCP in Africa. Particularly, research on the economic and human welfare case for SCP need to be carried out, examining in more depth the gains that can be made by using resources more efficiently and in a less polluting manner. The evidence need to be collected and presented in a clear and accessible form to key decision makers, supported by stronger “communications effort”.

#### **5.4.5 Priority SCP projects for Africa**

- 238.** It is important to focus on some concrete priority SCP projects at the regional level and then mobilize support for their implementation. The following priority projects to be implemented in the region in the short term were identified during the Ad-Hoc Expert Group Meeting on the Sustainable Development Report on Africa (SDRA) 2008-2009 , held in Addis Ababa from 24th to 26th June 2009. The potential implementing organizations for the different projects as identified during the meeting are given in parentheses.
1. Capacity building for national SCP action plans (UNEP, ARSCP, Marrakech Taskforce (MTF) on Cooperation with Africa and MTF on Sustainable Public Procurement).
  2. African Local SCP Initiative (ICLEI Africa, ARSCP, UNEP and MTFs).
  3. Regional programme on Resource Efficiency and Cleaner Production (RECP) including building capacities of NCPCs and SCP institutions (UNEP, UNIDO and RECP).

4. African Eco-labelling Mechanism (African Organisation on Standardisation, ARSCP, Marrakech Taskforce (MTF) on Cooperation with Africa).
5. Promoting an Integrated Solid Waste Management (ISWM) System in Africa (UNEP, Local Governments (ICLEI-Africa, ARSCP).
6. Education for Sustainable Consumption and Production in Africa (ARSCP, MTFs on Education for SCP and Sustainable Lifestyles, ICLEI-Africa) .
7. Sustainable building and construction in Africa (Green Building Council –South Africa, ICLEI-Africa, MTF on Sustainable Building and Construction, ARSCP).
8. Promotion of small scale renewables and biomass-based co-generation (UNIDO, UNEP, ARSCP).
9. Regional Knowledge Management and Information Exchange on SCP in Africa (ARSCP, MTF CWA).

Development partners are invited to support these projects which will have a significant impact in the promotion of SCP in the region.

## **6 CONCLUSIONS**

- 239.** In Africa, the overall aim of reducing poverty while attaining sustainability can be accomplished through actions that are directly relevant to SCP. The challenge is to provide more people with a better quality of life without undermining the natural resource base and destroying the ecosystems on which everybody depends. SCP contributes to meeting other development objectives in Africa including sustainable economic development by ensuring that resources are utilized in an efficient way through improved technologies, increased public awareness, better integration of government policies, economic instruments, legislation etc.
- 240.** Several African countries already have an ecological footprint that is larger than their countries' bio-capacity per capita. Unsustainable economic growth will further increase ecological footprints in the futures and achieving sustainability will require an absolute decoupling of resource use and impacts related to economic growth. The on-going economic and social restructuring in Africa offers a unique opportunity to establish more resource efficient SCP patterns. There are many opportunities to “leapfrog” towards more SCP patterns before consumption-driven impacts reach the levels observed in developed countries. SCP strategies applied now will safeguard against unsustainable patterns of consumption and production in the future.
- 241.** The impact and penetration of SCP activities is still very limited in most African countries. Few key activities have been conducted in most countries as part of the implementation of the African 10-YFP. SCP is a relatively new concept in the region and there are only very few examples of integrated SCP activities. There are several examples of activities and efforts targeting particularly Sustainable Production and to a much lesser extent Sustainable Consumption. African countries continue to face a number of challenges and constraints that constitute major impediments to and hamper progress in attaining sustainable consumption and production. Notable are poor education and lack of awareness on the benefits of SCP among all stakeholders, government failures, lack of human and technical capacity, economic, systemic and organizational constraints. These impediments merit urgent attention if progress is to be

accelerated. . The review has identified some best practices and lessons learned that can inform the development and implementation of programs and projects leading to SCP patterns in African countries.

- 242.** Africa as a region is at the forefront of the global Marrakech process on the 10-Year Framework of Programs as it has: a regional 10-YFP that is approved by AMCEN, a regional networking structure in the form of ARSCP that has served as an effective platform for the program development and knowledge exchange, an international supporting mechanism through the Marrakech Taskforce on Cooperation with Africa which is the only region-focussed taskforce under the global support mechanism of the Marrakech Process. Africa as a region has therefore established appropriate structures, political goodwill and mechanisms for sharing information and these need to be fostered by governments, AMCEN and development partners.
- 243.** The main priority approaches and actions proposed to accelerate progress are grouped under four main clusters: develop and strengthen the institutional and policy mechanisms, develop the supporting tools and instruments, enhance education and awareness activities for SCP and ensure the means for implementation for the effective development and implementation of the African 10-YFP at the national and local levels.
- 244.** Even with regional and international support, SCP is a concept that needs to be built from the national level. Change towards SCP is a systemic challenge. Systems of production and consumption are constrained by existing operating contexts (infrastructures and institutions, paradigms, social norms and practices, legal and institutional framework, economic framework). As a consequence, the ability of both business and consumers to initiate changes towards SCP by themselves is limited. Businesses, consumers or policy makers usually cannot solve problems alone but must work together in a ‘triangle of change’. There is also a need for enhanced political will and commitment at all levels.
- 245.** SCP is a vehicle for Greener Economies in Africa and it is a broad agenda, touching almost all economic activities. It will inevitably overlap with the activities of many agencies that do focus on energy, mobility, water, waste etc but who do not label their

activities as SCP. A two-pronged approach to SCP is necessary: SCP should be seen as a strategic objective while having at the same time specific and cross cutting objectives. The strategy described in this review report tries to push forward the SCP agenda through an integrative vehicle that covers most economic processes. Lessons learnt from niche experiments and pilot studies and their sharing and replication throughout the region will help in mainstreaming SCP in national policies & strategies and achieving the aim of changing the socio-economic landscape for more SCP patterns and Green Economies in Africa.

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## **ANNEX 1: JPOI CHAPTER III**

### **III. Changing unsustainable patterns of consumption and production**

14. Fundamental changes in the way societies produce and consume are indispensable for achieving global sustainable development. All countries should promote sustainable consumption and production patterns, with the developed countries taking the lead and with all countries benefiting from the process, taking into account the Rio principles, including, inter alia, the principle of common but differentiated responsibilities as set out in principle 7 of the Rio Declaration on Environment and Development. Governments, relevant international organizations, the private sector and all major groups should play an active role in changing unsustainable consumption and production patterns. This would include the actions at all levels set out below.
  
15. Encourage and promote the development of a 10-year framework of programmes in support of regional and national initiatives to accelerate the shift towards sustainable consumption and production to promote social and economic development within the carrying capacity of ecosystems by addressing and, where appropriate, delinking economic growth and environmental degradation through improving efficiency and sustainability in the use of resources and production processes and reducing resource degradation, pollution and waste. All countries should take action, with developed countries taking the lead, taking into account the development needs and capabilities of developing countries, through mobilization, from all sources, of financial and technical assistance and capacity-building for developing countries. This would require actions at all levels to:
  - (a) Identify specific activities, tools, policies, measures and monitoring and assessment mechanisms, including, where appropriate, life-cycle analysis and national indicators for measuring progress, bearing in mind that standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries;

- (b) Adopt and implement policies and measures aimed at promoting sustainable patterns of production and consumption, applying, inter alia, the polluter-pays principle described in principle 16 of the Rio Declaration on Environment and Development;
  - (c) Develop production and consumption policies to improve the products and services provided, while reducing environmental and health impacts, using, where appropriate, science-based approaches, such as life-cycle analysis;
  - (d) Develop awareness-raising programmes on the importance of sustainable production and consumption patterns, particularly among youth and the relevant segments in all countries, especially in developed countries, through, inter alia, education, public and consumer information, advertising and other media, taking into account local, national and regional cultural values;
  - (e) Develop and adopt, where appropriate, on a voluntary basis, effective, transparent, verifiable, non-misleading and non-discriminatory consumer information tools to provide information relating to sustainable consumption and production, including human health and safety aspects. These tools should not be used as disguised trade barriers;
  - (f) Increase eco-efficiency, with financial support from all sources, where mutually agreed, for capacity-building, technology transfer and exchange of technology with developing countries and countries with economies in transition, in cooperation with relevant international organizations.
- 16.** Increase investment in cleaner production and eco-efficiency in all countries through, inter alia, incentives and support schemes and policies directed at establishing appropriate regulatory, financial and legal frameworks. This would include actions at all levels to:
- (a) Establish and support cleaner production programmes and centres and more efficient production methods by providing, inter alia, incentives and capacity-



building to assist enterprises, especially small and medium-sized enterprises, particularly in developing countries, in improving productivity and sustainable development;

- (b) Provide incentives for investment in cleaner production and eco-efficiency in all countries, such as state-financed loans, venture capital, technical assistance and training programmes for small and medium-sized companies while avoiding trade-distorting measures inconsistent with the rules of the World Trade Organization;
  - (c) Collect and disseminate information on cost-effective examples in cleaner production, eco-efficiency and environmental management and promote the exchange of best practices and know-how on environmentally sound technologies between public and private institutions;
  - (d) Provide training programmes to small and medium-sized enterprises on the use of information and communication technologies.
- 17.** Integrate the issue of production and consumption patterns into sustainable development policies, programmes and strategies, including, where applicable, into poverty reduction strategies.
- 18.** Enhance corporate environmental and social responsibility and accountability. This would include actions at all levels to:
- (a) Encourage industry to improve social and environmental performance through voluntary initiatives, including environmental management systems, codes of conduct, certification and public reporting on environmental and social issues, taking into account such initiatives as the International Organization for Standardization standards and Global Reporting Initiative guidelines on sustainability reporting, bearing in mind principle 11 of the Rio Declaration on Environment and Development;

- (b) Encourage dialogue between enterprises and the communities in which they operate and other stakeholders;
  - (c) Encourage financial institutions to incorporate sustainable development considerations into their decision-making processes;
  - (d) Develop workplace-based partnerships and programmes, including training and education programmes.
- 19.** Encourage relevant authorities at all levels to take sustainable development considerations into account in decision-making, including on national and local development planning, investment in infrastructure, business development and public procurement. This would include actions at all levels to:
- (a) Provide support for the development of sustainable development strategies and programmes, including in decision-making on investment in infrastructure and business development;
  - (b) Continue to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the costs of pollution, with due regard to the public interest and without distorting international trade and investment;
  - (c) Promote public procurement policies that encourage development and diffusion of environmentally sound goods and services;
  - (d) Provide capacity-building and training to assist relevant authorities with regard to the implementation of the initiatives listed in the present paragraph;
  - (e) Use environmental impact assessment procedures.

\* \* \*

- 20.** Call upon Governments as well as relevant regional and international organizations and other relevant stakeholders to implement, taking into account national and regional specificities and circumstances, the recommendations and conclusions adopted by the Commission on Sustainable Development concerning energy for sustainable development at its ninth session, including the issues and options set out below, bearing in mind that in view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. This would include actions at all levels to
- (a) Take further action to mobilize the provision of financial resources, technology transfer, capacity-building and the diffusion of environmentally sound technologies according to the recommendations and conclusions of the Commission on Sustainable Development, as contained in section A, paragraph 3, and section D, paragraph 30, of its decision 9/1<sup>9</sup> on energy for sustainable development;
  - (b) Integrate energy considerations, including energy efficiency, affordability and accessibility, into socio-economic programmes, especially into policies of major energy-consuming sectors, and into the planning, operation and maintenance of long-lived energy consuming infrastructures, such as the public sector, transport, industry, agriculture, urban land use, tourism and construction sectors;
  - (c) Develop and disseminate alternative energy technologies with the aim of giving a greater share of the energy mix to renewable energies, improving energy efficiency and greater reliance on advanced energy technologies, including cleaner fossil fuel technologies;
  - (d) Combine, as appropriate, the increased use of renewable energy resources, more efficient use of energy, greater reliance on advanced energy technologies, including advanced and cleaner fossil fuel technologies, and the sustainable use of traditional energy resources, which could meet the growing need for energy services in the longer term to achieve sustainable development;

- (e) Diversify energy supply by developing advanced, cleaner, more efficient, affordable and cost-effective energy technologies, including fossil fuel technologies and renewable energy technologies, hydro included, and their transfer to developing countries on concessional terms as mutually agreed. With a sense of urgency, substantially increase the global share of renewable energy sources with the objective of increasing its contribution to total energy supply, recognizing the role of national and voluntary regional targets as well as initiatives, where they exist, and ensuring that energy policies are supportive to developing countries' efforts to eradicate poverty, and regularly evaluate available data to review progress to this end;
- (f) Support efforts, including through provision of financial and technical assistance to developing countries, with the involvement of the private sector, to reduce flaring and venting of gas associated with crude oil production;
- (g) Develop and utilize indigenous energy sources and infrastructures for various local uses and promote rural community participation, including local Agenda 21 groups, with the support of the international community, in developing and utilizing renewable energy technologies to meet their daily energy needs to find simple and local solutions;
- (h) Establish domestic programmes for energy efficiency, including, as appropriate, by accelerating the deployment of energy efficiency technologies, with the necessary support of the international community;
- (i) Accelerate the development, dissemination and deployment of affordable and cleaner energy efficiency and energy conservation technologies, as well as the transfer of such technologies, in particular to developing countries, on favourable terms, including on concessional and preferential terms, as mutually agreed;
- (j) Recommend that international financial institutions and other agencies' policies support developing countries, as well as countries with economies in transition, in their own efforts to establish policy and regulatory frameworks which create a

level playing field between the following: renewable energy, energy efficiency, advanced energy technologies, including advanced and cleaner fossil fuel technologies, and centralized, distributed and decentralized energy systems;

- (k) Promote increased research and development in the field of various energy technologies, including renewable energy, energy efficiency and advanced energy technologies, including advanced and cleaner fossil fuel technologies, both nationally and through international collaboration; strengthen national and regional research and development institutions/centres on reliable, affordable, economically viable, socially acceptable and environmentally sound energy for sustainable development;
- (l) Promote networking between centres of excellence on energy for sustainable development, including regional networks, by linking competent centres on energy technologies for sustainable development that could support and promote efforts at capacity-building and technology transfer activities, particularly of developing countries, as well as serve as information clearing houses;
- (m) Promote education to provide information for both men and women about available energy sources and technologies;
- (n) Utilize financial instruments and mechanisms, in particular the Global Environment Facility, within its mandate, to provide financial resources to developing countries, in particular least developed countries and small island developing States, to meet their capacity needs for training, technical know-how and strengthening national institutions in reliable, affordable, economically viable, socially acceptable and environmentally sound energy, including promoting energy efficiency and conservation, renewable energy and advanced energy technologies, including advanced and cleaner fossil fuel technologies;
- (o) Support efforts to improve the functioning, transparency and information about energy markets with respect to both supply and demand, with the aim of achieving greater stability and predictability, and to ensure consumer access to reliable,

affordable, economically viable, socially acceptable and environmentally sound energy services;

- (p) Policies to reduce market distortions would promote energy systems compatible with sustainable development through the use of improved market signals and by removing market distortions, including restructuring taxation and phasing out harmful subsidies, where they exist, to reflect their environmental impacts, with such policies taking fully into account the specific needs and conditions of developing countries, with the aim of minimizing the possible adverse impacts on their development;
- (q) Take action, where appropriate, to phase out subsidies in this area that inhibit sustainable development, taking fully into account the specific conditions and different levels of development of individual countries and considering their adverse effect, particularly on developing countries;
- (r) Governments are encouraged to improve the functioning of national energy markets in such a way that they support sustainable development, overcome market barriers and improve accessibility, taking fully into account that such policies should be decided by each country, and that its own characteristics and capabilities and level of development should be considered, especially as reflected in national sustainable development strategies, where they exist;
- (s) Strengthen national and regional energy institutions or arrangements for enhancing regional and international cooperation on energy for sustainable development, in particular to assist developing countries in their domestic efforts to provide reliable, affordable, economically viable, socially acceptable and environmentally sound energy services to all sections of their populations;
- (t) Countries are urged to develop and implement actions within the framework of the ninth session of the Commission on Sustainable Development, including through public-private partnerships, taking into account the different circumstances of countries, based on lessons learned by Governments, international institutions and

stakeholders, including business and industry, in the field of access to energy, including renewable energy and energy-efficiency and advanced energy technologies, including advanced and cleaner fossil fuel technologies;

- (u) Promote cooperation between international and regional institutions and bodies dealing with different aspects of energy for sustainable development within their existing mandate, bearing in mind paragraph 46 (h) of the Programme of Action for the Further Implementation of Agenda 21, strengthening, as appropriate, regional and national activities for the promotion of education and capacity-building regarding energy for sustainable development;
- (v) Strengthen and facilitate, as appropriate, regional cooperation arrangements for promoting cross-border energy trade, including the interconnection of electricity grids and oil and natural gas pipelines;
- (w) Strengthen and, where appropriate, facilitate dialogue forums among regional, national and international producers and consumers of energy.

\* \* \*

**21.** Promote an integrated approach to policy-making at the national, regional and local levels for transport services and systems to promote sustainable development, including policies and planning for land use, infrastructure, public transport systems and goods delivery networks, with a view to providing safe, affordable and efficient transportation, increasing energy efficiency, reducing pollution, congestion and adverse health effects and limiting urban sprawl, taking into account national priorities and circumstances. This would include actions at all levels to:

- (a) Implement transport strategies for sustainable development, reflecting specific regional, national and local conditions, to improve the affordability, efficiency and convenience of transportation as well as urban air quality and health and reduce greenhouse gas emissions, including through the development of better vehicle

technologies that are more environmentally sound, affordable and socially acceptable;

- (b) Promote investment and partnerships for the development of sustainable, energy efficient multi-modal transportation systems, including public mass transportation systems and better transportation systems in rural areas, with technical and financial assistance for developing countries and countries with economies in transition.

**22.** Prevent and minimize waste and maximize reuse, recycling and use of environmentally friendly alternative materials, with the participation of government authorities and all stakeholders, in order to minimize adverse effects on the environment and improve resource efficiency, with financial, technical and other assistance for developing countries. This would include actions at all levels to:

- (a) Develop waste management systems, with the highest priority placed on waste prevention and minimization, reuse and recycling, and environmentally sound disposal facilities, including technology to recapture the energy contained in waste, and encourage small-scale waste-recycling initiatives that support urban and rural waste management and provide income-generating opportunities, with international support for developing countries;
- (b) Promote waste prevention and minimization by encouraging production of reusable consumer goods and biodegradable products and developing the infrastructure required.

\* \* \*

**23.** Renew the commitment, as advanced in Agenda 21, to sound management of chemicals throughout their life cycle and of hazardous wastes for sustainable development as well as for the protection of human health and the environment, inter alia, aiming to achieve, by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment, using transparent



science-based risk assessment procedures and science-based risk management procedures, taking into account the precautionary approach, as set out in principle 15 of the Rio Declaration on Environment and Development, and support developing countries in strengthening their capacity for the sound management of chemicals and hazardous wastes by providing technical and financial assistance. This would include actions at all levels to:

- (a) Promote the ratification and implementation of relevant international instruments on chemicals and hazardous waste, including the Rotterdam Convention on Prior Informed Consent Procedures for Certain Hazardous Chemicals and Pesticides in International Trade<sup>10</sup> so that it can enter into force by 2003 and the Stockholm Convention on Persistent Organic Pollutants<sup>11</sup> so that it can enter into force by 2004, and encourage and improve coordination as well as supporting developing countries in their implementation;
- (b) Further develop a strategic approach to international chemicals management based on the Bahia Declaration and Priorities for Action beyond 2000 of the Intergovernmental Forum on Chemical Safety<sup>12</sup> by 2005, and urge that the United Nations Environment Programme, the Intergovernmental Forum, other international organizations dealing with chemical management and other relevant international organizations and actors closely cooperate in this regard, as appropriate;
- (c) Encourage countries to implement the new globally harmonized system for the classification and labelling of chemicals as soon as possible with a view to having the system fully operational by 2008;
- (d) Encourage partnerships to promote activities aimed at enhancing environmentally sound management of chemicals and hazardous wastes, implementing multilateral environmental agreements, raising awareness of issues relating to chemicals and hazardous waste and encouraging the collection and use of additional scientific data;

- (e) Promote efforts to prevent international illegal trafficking of hazardous chemicals and hazardous wastes and to prevent damage resulting from the transboundary movement and disposal of hazardous wastes in a manner consistent with obligations under relevant international instruments, such as the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal;<sup>13</sup>
  
- (f) Encourage development of coherent and integrated information on chemicals, such as through national pollutant release and transfer registers;
  
- (g) Promote reduction of the risks posed by heavy metals that are harmful to human health and the environment, including through a review of relevant studies, such as the United Nations Environment Programme global assessment of mercury and its compounds.

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<sup>9</sup> Official Records of the Economic and Social Council, 2001, Supplement No. 9 (E/2001/29), chap. I.B.

<sup>10</sup> UNEP/FAO/PIC/CONF.5, annex III.

<sup>11</sup> [www.chem.unep.ch/sc](http://www.chem.unep.ch/sc).

<sup>12</sup> Intergovernmental Forum on Chemical Safety, third session, Forum III final report (IFCS/Forum III/23w), annex 6.

<sup>13</sup> Intergovernmental Forum on Chemical Safety, third session, Forum III final report (IFCS/Forum III/23w), annex 6.

## **ANNEX 2: SYNTHESIS OF RESPONSES TO QUESTIONNAIRE**

A focus-group e-mail survey of participants who attended the Fifth African Roundtable on SCP in Johannesburg was carried out in December 2008 to identify barriers to SCP in Africa and discuss the way forward. Out of the 30 participants to which the questionnaire was e-mailed, 16 responded. The participants were from Government, Private Sector, NGOs including consumer associations and from regional/ international organizations. The selection ensured a regional balance. The synthesis of the survey is given below.

### **Question 1:**

**What would be, in your opinion, the main benefits of an SCP programme for Africa that should be used to gather more support from policy makers? Please rank the following benefits by order of importance.**

### **Answer:**

1. Contributing to Poverty Reduction
2. Contribution to major environmental challenges
3. Ensuring better access to basic services
4. Creating new market opportunities and new sources of employment
5. Reduction of future costs and increases competitiveness
6. Enabling leapfrogging

### **Question 2:**

**From your knowledge on the consumption and production trends in Africa, which are of utmost concern to you? Please rank the following issues by order of importance.**

### **Answer:**

1. Energy use
2. Water use
3. Food Production and Consumption
4. Land use, including deforestation

5. Waste generation and disposal
6. Industrial production pattern
7. Human Settlement Patterns
8. Transportation
9. Tourism Development and use of Resources
10. Domestic Material Consumption

**Question 3:**

**Please rank the five key challenges to SCP in Africa below by order of importance.**

**Answer:**

1. Lack of awareness and knowledge both at decision makers and the general public level
2. Absence of appropriate policy and legislative framework
3. Weak technical capacity and lack of technical support institutions
4. Providing the right infrastructures for sustainable lifestyles
5. Absence of alternative products and services that are more sustainable

**Assumption:**

*Lack of awareness about SCP and about how SCP links with other concerns and priorities in society is one of the most important barriers. This lack of awareness is linked to weak support for SCP, lack of legislation and policies, poor education, lack of R&D and consumer traditions.*

**Question 4:**

**What would be, according to you, the best short to long term approaches to create the awareness on the benefits of SCP to Africa amongst the following groups?**

**Answer:**

**Policy and decision makers:**

- conducting issue-based awareness seminars to parliamentary groups and inter-ministerial committees by relating SCP to concrete development issues that is being addressed
- Put the SCP initiatives on the political agenda of international and regional political meetings of decision makers
- Emerge the SCP concept into the national policies and strategies
- Creating Awareness of policy makers on best practices and their benefits through simple fact sheets
- Visits to best practice sites

**Industry and Business:**

- Identifying champions from business and industry and working through these champions to reach the broader industry and business group
- Raising awareness seminars and workshops
- Involvement the industry and business associations in formulation of national strategies on SCP
- Demonstration Projects and dissemination of information on benefits of SCP case studies for the industry
- Create a link on SCP between the national industry/business associations with similar regional/international association.
- Developing relevant curriculum in educational and training institutions

**Consumers and the General Public:**

- Targeting youth and professional groups who can be instrumental in organizing public events and platforms; working with journalists, media professionals and advertising agencies to influence messages conveyed to the general public through all media
- Inculcate the “SCP culture” in the younger generation through education and awareness creation

- Surveys and interviews with different levels of consumers to investigate their preferences on SCP
- Raising Awareness Seminars and Workshops on SCP for consumers
- Enhance the role of NGOs and Consumer Protection Associations in the promotion of SCP concept.
- Better use the power of the Internet
- Better use of Mass media and greater involvement of TV channels

**Assumption:**

*Finding champions for the mainstreaming of SCP is crucial. National and Local Governments are the most important drivers for SCP. SCP is to a large extent a government responsibility with CP centres, industry associations and business organizations and NGOs as important partners. Governments should create policy frameworks that are conducive to assisting other stakeholders in initiating SCP activities*

**Question 5:**

**With respect to champions, which stakeholder(s) according to you must take the role of champions for SCP in any given country? Please rank the following stakeholders by order of importance.**

**Answer:**

1. Ministry of Environment
2. Local Governments
3. Industry Associations/Business Organizations
4. NGOs, including Consumer Associations
5. Development Aid Agencies
6. Ministry of Finance

**Comments:**

*Governments (local and national) need to be informed and sensitized first and foremost in order to create an enabling and conducive environment for the stakeholders to contribute*

positively. Therefore the most important actors as champions are the SCP institutions and practitioners (e.g. CP Centres, Universities, NGO's, individuals, etc). Government officials responsible for national strategies and plans and members of parliament should be sensitized on SCP before conducting a national dialogue with the various stakeholders on national priorities and how SCP should be mainstreamed in national plans, policies, legislations. Every sectoral ministry should have an SCP desk officer to oversee and coordinate the mainstreaming of SCP in the various sectoral activities. S/he should work with the SCP champions.

**Question 6:**

**Name three to five key SCP-related activities that have been carried out in your country and indicate the source of funding for these activities.**

**Answer 6:**

Libya:

It not has been started yet, However the National Agency for Industrial Estates is Currently working on national plan to promote SCP within the newly established Industrial zones

Senegal:

1. Information/sensibilisation de la Commission Nationale de Développement Durable (CNDD) sur les recommandations du Plan d'Action de Johannesburg relatives aux Modes de Production et de Consommation Durables (MPCD);
2. Mise en place d'un groupe de travail pour la formulation et l'adoption d'un Plan d'Action Décennal sur les MPCD pour le Sénégal;
3. Tenues de rencontres sur l'intégration des MPCD dans le Document Stratégique de Réduction de la Pauvreté (DSRP), les OMD et la SNDD;
4. Participation aux différentes rencontres de la Table Ronde Africaine sur les MPCD;
5. Organisation à Dakar, en collaboration avec le PNUE/ROA, de deux rencontres au profit des pays francophones sur les MPCD.

Ces activités ont été réalisées par le Gouvernement du Sénégal dans le cadre de l'appui budgétaire des Pays Bas (activité 2) et du PNUE (activités 3, 4, 5)

- Elaboration d'un Plan cadre décennal sur les modes de production et consommation durables financé par le gouvernement du Royaume des Pays Bas;
- Intégrer les MPCD dans le document de stratégie de réduction de la pauvreté financé par l'UNEP;
- Renforcement de capacités des experts francophones sur les MPCD financé par l'IEPF.

### Uganda

- Energy saver bulb replacement –Government
- Organic farming development – Private sector
- Eco Tourism – Private sector
- Plastic bottle recycling – Private Sector and DANIDA
- Development of draft national SCP Policy with UNIDO funding
- Promotion of SCP activities in Lake Victoria Basin with funding from Sida
- SCP activities in the hotel industry with funding from Uganda Ministry of Tourism, Trade and Industry

### Egypt

- The Egypt National Cleaner Production Centre which was established by the Ministry of Trade and Industry in Close Cooperation with UNIDO. The ENCPC is financed by UNIDO (Austrian and Swiss Governments) and in-kind contribution of the Egyptian Government.
- Egyptian Pollution Abatement Project- Phase II which is implemented by the Egyptian Environmental Affairs Agency (EEAA) and financed by the World Bank and French Development Agency, European Investment Bank and Japanese Bank for international Cooperation (JIBC). In addition to European Commission, Finland government and Egypt Government.



### South Africa

- NRSCP by UNEP
- CP by UNIDO and Department of Trade and Industry
- Industrial Action Plan by Department of Trade and Industry
- CP policy by Department of Trade and Industry
- CP in Metal finishing industry by DANIDA
- Sustainable cities programme by UNEP

### Mozambique

- Cleaner production programmer funded by the Italian Government through UNIDO
- Energy Management Programme in the Ministry of Energy and Eduardo Mondlane Public University with focus on Industrial Energy Efficiency funded by DANIDA.
- Cleaner Development Mechanism (CDM) capacity building programme funded by World Bank and Netherlands in the Ministry for Coordination of Environmental Affairs (MICOA)
- Development of Innovation and Cluster Programme funded by Swedish Government

### Nigeria

- Workshop on Mainstreaming Education for Sustainable Development in Africa (MESA) co-sponsored by SIDA and OAU;
- Stakeholders Workshop on Education for Sustainable Development sponsored by the Nigerian Universities Commission (NUC);
- Establishment of GreenCam an NGO for sustainable management of Campus environment. Private funding at OAU.

### Zimbabwe

- Solar home systems in Zimbabwe funded by UNDP/GEF
- Electricity export from micro-hydro scheme funded privately

- Export of electricity from the sugar industry by Hippo Valley Sugar Estates funded by the company

**Assumption:**

*SCP implementation at the city level is very important for Africa due to the increasing urbanization. The opportunity for large scale environmental and social gains may be greater in cities through more integrated and efficient spatial planning, investment in collective transport, waste collection and management etc.*

**Question 7:**

**What kind of initiatives can be taken for integration of SCP in sustainable cities programs in Africa?**

**Answer:**

- En partant du rythme d'accroissement et d'urbanisation sans commune mesure des villes africaines, les initiatives à prendre par les planificateurs et gestionnaires urbains pour une meilleure intégration des questions liées aux MPCD dans les politiques et programmes d'aménagement urbain devraient s'inscrire dans une vision prospective et globale à travers les Agendas 21 locaux. En effet, l'intégration des MPCD dans ces documents de planification stratégiques devraient aider à mieux prendre en charge les questions liées à l'occupation spatiale au sein des Schémas d'Aménagement Urbain (SAU), des Plans Directeurs d'Urbanisme, mais aussi et surtout des Plans d'Occupation des Sols (POS), des Plans Directeurs de Gestion des Déchets, de Circulation Urbaine, de Gestion des Risques et Catastrophes, etc.
- Most of the environmental and social challenges emanating from the urbanization process in Africa call for SCP solutions. It is therefore inevitable that decision makers and planners at the cities level (local government) are sensitized about SCP through education and awareness creation. Subsequently demonstration programmes/activities should be initiated to showcase how SCP can be applied to save the various challenges within the cities. This will lead to accepting and integrating SCP in the various cities programmes within the region.

- Organic waste separation; Energy saver bulbs; Solar panels for water heating; Charcoal production and use system analysis.
- Sustainable public procurement programmes; Integrated solid waste management programmes; Demand-side management programmes; Sustainable building and construction programmes.
- Cooperative planning among different concerned stakeholders is very important tool to promote SCP concept at local levels in African cities.
- Public-private partnership is highly recommended for go further with SCP initiatives.
- Economical, Environmental and Life Style Evidences of adopting the SCP are key issues to convince the local community for active contribution.
- Implement small-scale projects that could easily be replicated elsewhere upon successful implementation.
- Exchange of experiences between African cities on implementation of SCP through African Roundtable on SCP.
- Waste management programmes-recycling, reuse etc.; Involvement of urban authorities in promotion of SCP in cities; Promotion of Environmental Management Systems in Urban Centres; Awareness and prompt information dissemination; Strengthening of National Cleaner Production Centres (NCPCs) in SCP activities.
- Ensure that local development plans integrate sustainable development agendas and use SCP as a tool to achieve sustainable development.
- Construction of sustainable building; Urban planning; Sustainable transport; Sustainable integrated waste management programme; Demand side water and energy use programme , Education on SCP.
- Les initiatives qui peuvent être développées dans le cadre des programmes des villes sont:
  - L'appui à l'éducation environnementale
  - La gestion durable des déchets solides et liquides
  - La promotion d'un comportement citoyen par le changement pour des modes de consommations durables
  - Le partenariat public privé pour des modes de production durables

- Recycling of paper by the city authorities; Creation of waste to energy recovery plants by city councils; Creation of appropriate public transportation systems like GAUTRAIN subway system and bus-only lanes being built in Johannesburg.

**Assumption:**

*Dissemination and replication of successful SCP activities is needed to create easy access to knowledge. Creating a database of case studies and innovative approaches could provide a valuable resource and inspiration to communities interested in dealing with specific local consumption issues such as water, energy, solid waste, transport, etc.*

**Question 8:**

**What kind of innovative approaches could be used to disseminate and replicate successful SCP activities across Africa?**

**Answer:**

- Pilot Regional projects and University research.
- Organiser des rencontres sous-régionales sur les MPCD en collaboration avec les Communautés Economiques Régionales et autres (UMA, CEDEAO/UEMOA, IGAD, SADC, CEEAC/COMIFAC) ;Commettre une étude diagnostique des différentes expériences et activités réussies en matière de MPCD en Afrique (Banque de données);Assister les pays africains (francophones en particulier) à élaborer des stratégies ou plans sur les MPCD ;Mise à niveau des pays africains (francophones en particulier) sur les différents programmes et processus en cours sur les MPCD. Ces différentes activités citées ci-haut devraient étroitement être menées avec le NEPAD dont l'Initiative Environnement vise les mêmes objectifs à savoir la promotion du développement durable de l'Afrique et la réduction de la pauvreté.
- This calls for addressing squarely the issue of SCP knowledge management in the region (Africa). Data base(s) creation is inevitable for sustaining and disseminating SCP solutions in the region. ARSCP Secretariat could be charged with the task of maintaining the SCP solutions database where contributions of case studies and innovative approaches could be coming from the various SCP practitioners within and

outside the region. Information dissemination could be electronic or through conferences, roundtables, etc. SCP practitioners should be encouraged to access the database for the successful replication of SCP solutions in the region.

- Exchange visits; Prizes for best practice; Subsidies for energy saving developments Support for organic agriculture; High profile promotion campaign e.g. as with HIV/AIDS in Uganda.
- Developing an interactive web platform under ARSCP; utilizing existing NCPCs and other SCP promoting institutional as information nodes at the national level; establishing a strong working relationship with the African Environmental Journalists Network and use its members as an effective dissemination agents; make more use of the platforms of the African Ministerial Conference on Environment (AMCEN).
- Radio talks and drama has proved to be the most effective way of reaching majority of people. Then use of TV especially in urban areas. The other option which is effective based on the organisation and coordination is workshops and including SCP talks in government and traditional leaders speeches.
- Create capacity building programme through workshop and training seminars at national and city levels on how to develop and implement Pilot Sustainable Consumption and Production Programmes in all the African Countries.
- Use of the Internet, ICT and national television and radio stations. Sports is also one viable route for sharing the vision of SCP.
- Attachment and training of policy makes and implementing personnel in best practice locations in Africa and abroad.
- Pour vulgariser les meilleures pratiques et leçons en matière de modes de production et de consommation durable, il faut:

Renforcer la coopération sud sud;

Développer les réseaux de communication sur le système d'information entre les pays;

Accroître la tenue d'ateliers régionaux (pour chaque sous régions de l'Afrique) de mutualisation des expériences en matière de consommation et production durables.

**Assumption:**

*Africa as a region is at the forefront of the global Marrakech process on the 10-Year Framework of Programs as it has a regional framework program-the Africa 10YFP- that is approved by AMCEN.*

**Question 9:**

**What are the specific follow-up activities you may have carried out as part of the development and implementation of the African 10 Year Framework Programme?**

**Answer:**

**Senegal:**

- Suivi du Plan d'Action Décennal sur les MPCD;
- La promotion d'outils de gestion de l'environnement (systématisation des EIE, des Audits Environnementaux);
- Discussion avec le secteur privé sur les opportunités et enjeux du Mécanisme de Développement Propre (MDP) et du Plan Stratégique de Bali sur le transfert de technologies;
- Préparation d'une stratégie nationale de gestion intégrée et durable des déchets solides au Sénégal;
- La révision du plan décennal du Sénégal pour le conformer aux lignes directrices définies par l'UNEP sur les modes de consommation et production durables est en cours ainsi que la soumission de projets prioritaires sur les MPCD aux partenaires techniques et financiers a été faite.

**Uganda:**

- Promotion of organic agriculture
- Energy saver light installation
- Tree planting promotion
- Advocacy where possible

- Sub-regional project (Kenya, Uganda, Tanzania, Rwanda) on SCP in Lake Victoria Basin
- Drafting of National SCP Policy for Uganda
- Inclusion of SCP activities in the National Industrialisation Policy
- Involvement of Local Governments in SCP activities

Mozambique:

We have been involved in development of the Pilot 10 Years Framework Programme on Sustainable Consumption and Production for the Cities of Maputo and Matola that was official endorsed by the Ministry for Coordination of Environmental Affairs (MICOA), of Mozambique to UNEP on October 2008.

South Africa

- Research on social and environmental impacts of bio-diesel in collaboration with Brazilian researchers
- Environmental and energy assessment of sugar manufacturing in South Africa
- Environmental assessment of freight transportation in South Africa

**General Comments:**

- *Adoption of policies to give consumers an incentive to move towards more sustainable patterns of consumption..*
- *There is a need for further and detailed actions to be implemented to study the rest uncovered development areas than the other identified SCP selected priority areas.*
- *Capacity building and training activities on SCP is highly to assist in the progress as well as the sustainability of the SCP process.*
- *Building a comprehensive data base including all the issues related to the consumption and production patterns is so important.*
- *Permanent National SCP Steering Committee is required in African countries.*

- *Ecological footprint initiative, Life Cycle Analysis (LCA) and Life Cycle Costing (LCC) are important methods for helping to determine the overall environmental impacts of goods or products, and their lifetime cost.*
- *Public engagement and participation in the process is lacking. There is a strong need to link AMCEN, ARSCP and 10 yr framework to regional programmes and central to NEPAD, development banks and other initiative that are aimed at improving continental programme for poverty reduction and economic growth..*
- *Réseautage des parties prenantes communautaires pour le développement durable. Intégrer dans les stratégies de lutte contre la pauvreté la mise en conformité aux normes de bonnes pratiques durables.*

**Assumption:**

*The creation of sustainable systems of production and consumption is increasingly viewed as a process that will depend more on a radical restructuring of existing systems than an incremental improvement. For African countries, leapfrog changes in systems of production and consumption, products and services offer the possibility of a development path that will de-link economic development with environmental degradation.*

**Question 10:**

**Please list any innovative SCP activities or innovative instruments/approaches/policies contributing to sustainable consumption and production that you are aware of and which need to be up-scaled in Africa?**

**Answer:**

- The demonstration programmes in the promotion of CP in SMEs carried out by NCPCs within the region stand out as testimony to the leapfrogging initiatives. Various sectoral enterprises including services have been covered. Government policies and environmental legislations have adopted CP concept. Examples from Tanzania include, among others:
  - Sustainable Industrial Development policy (1996)



- Environmental policy (1997)
  - Environmental Management Act (2004)
  - Three (3) municipalities (Morogoro, Mwanza and Tanga) have worked with the CP centre in the demonstration program
- 
- Free energy light bulb switch; No tax on solar equipment
  - Creating a pragmatic action plan and programme to achieve 10 yr framework aspiration and have each country commit and monitor their improvement plan over a given time frame.
  - The Pan African Competitiveness Forum is an instrument created to stimulate the sustainable development through innovative cluster program that started in East Africa which need to be up-scaled in Africa.
  - Les expériences existent mais leur recensement devra se faire car l'information sur les modes de consommation et production durable fait défaut au Sénégal. Comme politique, il existe un plan décennal sur les modes de consommation et production durable arrimé à la stratégie de croissance et de réduction de la pauvreté. En plus la lettre de politique de développement du secteur de l'environnement fait de la promotion des modes de consommation et de production durable un axe d'intervention stratégique.
  - The MESA should be encouraged in all Universities in Africa as a tool for education on SCP.
  - Electricity production in the sugar industry learning from Mauritius; Development of bus highways and procurement of 1100 buses being done by the City of Johannesburg; Promotion of organic food production as is done by Woolworth South Africa; Production of grid-export electricity in the pulp and paper industry as is being done by SAPPI in South Africa.

## ANNEX 3: AREA, POPULATION AND GDP OF THE 53 COUNTRIES IN AFRICA

Table A3.1: Area, population and GDP (ADI(2007))

	<i>Population (millions)</i>	<i>Land Area (thousands of sq Km)</i>	<i>Population density (people per sq Km)</i>	<i>GDP per capita, PPP(Dolla rs) Constant 2000 prices</i>	<i>% share of rural population to total population</i>	<i>Gini coefficient (data for the most recent year available)</i>
<b>Sub-Saharan Africa</b>	801	23,629	33.9	601.6	64.1	
Angola	17.0	1247	13.7	5160	44.2	
Benin	9.0	111	81.6	1239	59.2	36.5
Botswana	1.9	567	3.3	12,664	41.2	
Burkina Faso	14.7	274	54.0	1061	80.9	39.5
Burundi	8.5	26	330.8	321	89.9	
Cameroon	18.5	465	39.8	2005	44.1	44.6
Cape Verde	0.5	4	131	2871	41.2	
Central African Republic	4.3	623	6.9	673	61.6	
Chad	10.7	1259	8.6	1395	73.8	
Comoros	0.6	2	336	1084	71.9	
Congo, Dem.Rep.	62.4	2267	27.5	282	66.7	
Congo.Rep.	3.8	342	11.0	3315	39.0	
Cote d'Ivoire	19.3	318	60.6	1579	51.9	44.6
Djibouti	0.8	23	35.9	1946	13.1	
Equatorial Guinea	0.5	28	18.1	28923	60.8	
Eritrea	4.8	101	47.9	507.7	79.7	

Ethiopia	79.1	1000	79.1	736	83.3	30.0
Gabon	1.3	258	5.2	14325	15.4	
Gambia, the	1.7	10	170.7	1164	44.4	
Ghana	23.5	228	103.1	1260	50.7	
Guinea	9.8	246	38.2	1076	66.0	38.6
Guinea-Bissau	1.6	28	60.3	450.9	70.2	
Kenya	37.5	569	66.9	1449	78.7	
Lesotho	2.0	30	66.1	1455	75.3	
Liberia	3.7	96	38.9	338	40.5	
Madagascar	19.7	582	33.8	882	70.8	47.5
Malawi	13.9	94	147.9	713.2	81.7	39.0
Mali	12.3	1220	10.1	1023	68.4	40.1
Mauritania	3.1	1025	3	1820	59.2	39.0
Mauritius	1.3	2	622	10647	57.6	
Mozambique	21.4	784	27.2	752	63.9	47.3
Namibia	2.0	823	2.5	4882	63.7	
Niger	14.2	1267	11.2	593	83.5	
Nigeria	148	911	162.5	1866	52.4	43.7
Rwanda	9.7	25	394.6	818	81.9	46.8
Sao Tome and Principe	0.2	1	164.5	1547	40.3	
Senegal	12.4	193	64.5	1572	57.9	41.3
Seychelles	0.1	0.46	185	13595	46.1	
Sierra Leone	5.8	72	81.7	639	62.5	
Somalia	8.7	627	13.9	....	63.9	
South Africa	47.6	1214	39.2	9191	39.7	57.8
Sudan	38.6	2376	16.2	1970	57.4	
Swaziland	1.1	17	66.6	4639	75.3	50.4
Tanzania	40.4	884	45.6	1141	74.9	34.6

Togo	6.6	54	121	763	58.7	
Uganda	30.9	197	156.9	886.3	87.2	45.7
Zambia	11.9	743	16.0	1282	64.7	50.8
Zimbabwe	13.4	387	34.6	.....	63.1	
<b>North Africa</b>	<b>157</b>	<b>5738</b>	<b>27.3</b>	<b>2136</b>	<b>47.1</b>	
Algeria	33.8	2382	14.2	7507	35.42	
Egypt, Arab. Rep.	75.5	995	75.8	5052	57.2	34.4
Libya	6.2	1760	3.5	13895		
Morocco	30.8	446	69.1	3835	44.3	
Tunisia	10.2	155	65.9	7086	33.9	39.8
<b>All Africa</b>	<b>958</b>	<b>29,367</b>	<b>32.6</b>	<b>852</b>	<b>61.2</b>	

Countries and regions are, since Rio, searching for options that could bring about fundamental changes in the way societies produce and consume in order for global sustainable development to be achieved. The Cleaner Production (CP) concept came in handy to provide developing countries with one such way of responding to this global challenge. Cleaner Production is itself not a new concept but a logical extension of the desire to conserve materials and reduce waste. It requires people to examine ways that result in increased productivity, reduced resource inputs and waste, and most importantly, reduced risk to the environment. CP provides a practical way to take clues from the conceptual framework of sustainable development towards action.

The African Roundtable was initiated with the view to facilitate the development of national and regional capacities for sustainable consumption and production (SCP) and promote the effective implementation of the concepts and tools of SCP in African countries. The project on 'Supporting the African 10 Year Framework Programme on SCP and the Marrakech Task Force on Cooperation with Africa' is implemented by UNEP with the financial support from the Government of Germany.

This report has been prepared as a contribution to the third issue of the Sustainable Development Report on Africa (SDRA) under the theme sustainable consumption and production for sustainable growth and poverty reduction in Africa. The cluster of issues addressed in the report will be considered during the CSD-18 and CSD-19 sessions of the UN Commission on Sustainable Development in 2010 and 2011 respectively.

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