

Report of the Fourth African
Roundtable on Sustainable
Consumption and Production
and the

*High-level Launch for the African 10-Year
Framework Programme on Sustainable
Consumption and Production*



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List of Acronyms

AAU	Addis Ababa University
AMCEN	African Ministerial Conference on the Environment
APELL	Awareness and Preparedness for Emergency at Local Level
ARSCP	African Roundtable on Sustainable Consumption and Production
ASDEC	Association for the Protection of Environment and Consumers (Senegal)
AU	African Union
CFC	Chloro Fluoro Carbon
CITET	International Centre for Environmental Technology Transfer
CP	Cleaner Production
CSD	Commission on Sustainable Development
DEAT	Department of Environment and Tourism
DED	German Development Service
ECPC	Ethiopian Cleaner Production Center
EIA	Environmental Impact Assessment
EMS	Environmental Management System
EPA	Environmental Protection Authority
EU	European Union
EST	Environmentally Sound Technology
FEPA	Federal Environmental Protection Authority
GTZ	German Technical Cooperation
HCFC	Hydro Chloro Fluoro carbon
HCW	Health Care Waste
HFC	Hydro-Chloro Carbon
ISWM	Integrated Solid Waste Management
IVCA	Integrated Value Chain Analysis
IWRM	Integrated Water Resources Management
LCA	Life Cycle Assessment
LCC	Life Cycle Costing
MCPC	Morocco Cleaner Production Center
MDG	Millennium Development Goal
NCPC	National Cleaner Production Centres
NEPAD	New Partnership for Africa's Development
OARE	Online Access to Research on the Environment
PCB	Poly-chlorinated biphenyls
PRS	Poverty Reduction Strategies
SCP	Sustainable Consumption and Production
SD	Sustainable Design
SME	Small and Medium Enterprises
TNA	Technology Needs Assessment
UCPC	Uganda Cleaner Production Center
UN-DESA	UN- Department for Economic and Social Affairs

UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme
UNESCO	United Nations Education and Scientific Organization
UNIDO	United Nations Industrial Development Organization
UV	Ultra-violet
WHO	World Health Organization
WSSD	World summit on Sustainable Development
WREM	Waste Recycling and Environmental Management Research and Development Organization

***Report of the
High-level Launch for the African 10-Year
Framework Programme on Sustainable
Consumption and Production***

jointly organized by

The African Union (AU)

United Nations Economic Commission for Africa (UNECA)

and

United Nations Environment Programme (UNEP)

Presided over by

His Excellency President Girma Wolde Ghiorgis

President of the Federal Democratic Republic of Ethiopia

United Nations Conference Center (UNCC)

29 May 2006, Addis Ababa Ethiopia

The High-level Launch of The African 10-Year Framework Programme (10-YFP) on Sustainable Consumption and Production (SCP) was held on 29 May 2006 at the United Nations Conference Center in Addis Ababa in the presence of His Excellency President Girma Woldegiorgis, President of the Federal Democratic Republic of Ethiopia. The High-level Launch Session was jointly organized by the African Union, the United Nations Economic Commission for Africa (UNECA) and the United Nations Environment Programme (UNEP) having the following objectives.

- To inform the high-level representatives of African countries and development partners about the outcome from the development of the African 10-Year Framework Programme on Sustainable Consumption and Production;
- To catalyse the required political commitment and support at the national, regional and international level for the further development and implementation of the African 10-Year Framework Programme; and
- To announce the establishment of the regional coordinating and support mechanism for the further development and implementation of the African 10-YFP.

The session was attended by Ambassadors residing in Addis Ababa, high-level government officials, representatives of international organizations and more than 80 participants of the Fourth African Roundtable on Sustainable Consumption and Production (ARSCP-4) from thirty two countries. The session was started by an introduction of the programme which was made by Mr. Sekou Toure, Director of UNEP's Regional Office for Africa, who facilitated the whole proceeding of the High-level Session. A key note presentation on the 'Marrakech Process and the African 10 Year Framework Programme' was made by Mr. Desta Mebratu, UNEP's Regional Industry Officer. Representatives of regional and international organizations and Ambassadors of the Federal Republic of Germany and the Royal Kingdom of Morocco made remarks during the launch session.

The welcoming remark of the High-level launch session was made on behalf of UNEP and its partner organizations by Mr. Arab Hoballah, Head of the Production and Consumption Branch of UNEP. In his remark, Mr. Hoballah underlined why it is important to promote the further development and implementation of the 10-Year Framework Programme in all the regions and highlighted the key activities that were carried out by UNEP and its partners in facilitating this process. He specifically outlined some of the key programmes and activities upon which UNEP will be focussing in the context of promoting sustainable production and consumption at all levels. This includes: promotion of new models of alternative development such as the circular economy in china, waste management with a focus on the 'Three R' principles, capacity building and technology support in the context of the Bali Strategic Plan, sustainable trade and use of resources, sustainable energy and mobility and awareness and education on SCP. He concluded his remark by expressing UNEP's appreciation to the Royal Norwegian Government for the support provided to institutionalise the African Roundtable on Sustainable Consumption and Production (ARSCP) and to the Federal Government of Germany for their continued support towards the development and implementation of the African 10-Year Framework Programme on SCP.

This was followed by the remark from the German Federal Minister of Environment which was made by His Excellency Dr. Claas-Dieter Knoop, Ambassador of the Federal Democratic of Germany to Ethiopia. Dr. Knoop noted that the launching of the African 10-YFP is an important step of Africa into a better future: A future which it well deserves, and which it is determined to work for. It is a future not only of economic growth to fight poverty, but also of environmentally conscious progress, characterized by cleaner production and sustainable consumption. He highlighted the support provided by the German Ministry of Environment in developing the 10-YFP and reiterated the commitment of his Government to continue supporting the regional process through the Marrakech Taskforce on Cooperation with Africa. His Excellency Dr. Knoop concluded his remark by underlining that, there are so many mistakes committed and that can and must be avoided; "*leapfrogging*" these environmental traps is the key word and aim.

The next remark was from the Royal Kingdom of Morocco which was made by His Excellency Mr. Abdeljebbar Brahime, Ambassador of the Royal kingdom of Morocco to Ethiopia. Mr. Brahime expressed his country's appreciation for being associated with the 10 Year Framework programme process by hosting the first international meeting and the first regional meeting for Africa. He underlined the strong relevance of the key priority areas identified in the African 10-Year Framework Programme on sustainable consumption and production to African countries' development agenda and highlighted some of the effort that is being made by his government through the Morocco Cleaner production Center. He reiterated his country's commitment to share the useful experience with African countries and support other African countries in their effort to develop such capacities.

The remark from the Executive Secretary of the United Nations Economic Commission for Africa (UNECA) was made by Mr. Josué Dioné, Director of the Sustainable Development Division at UNECA. Mr. Dioné noted that Africa has made remarkable progress in developing a 10-year framework programme to accelerate the shift towards sustainable consumption and production, as called for by the Johannesburg Plan of Implementation. He highlighted some of the activities that have been undertaken in areas that have direct relations to the key priorities identified in the African 10 Year Framework Programme and outlined some of the key issues that need to be addressed in the further development and implementation of the African 10-Year Framework Programme on Sustainable Consumption and Production. The issues are:

- How sustainable consumption and production can contribute to Africa's quest for the MDGs and attaining sustainable development;
- How to effectively incorporate sustainable consumption and production considerations into growth, poverty reduction and sustainable development strategies;
- What specific actions need to be considered in the implementation of a sustainable consumption and production plan, and what financing mechanisms should be put in place for the effective implementation of such a plan;

- How to achieve effective partnership arrangements between governments, industry and civil society for the promotion of sustainable consumption and production;
- What types of mechanisms should be put in place to foster development cooperation for capacity building, technology transfer, technical and financial assistance to enable Africa “leapfrog” into more sustainable consumption and production patterns; and
- How to maximize opportunities presented by the Taskforce on Cooperation with Africa, that was launched during the Second International Meeting on the Marrakech Process, and led by Germany.

Finally, he expressed his confidence that the outcome of the three-day deliberations during the Roundtable, which would follow from the High-level launch session will result in a greatly consolidated African 10-Year Framework Programme for “leapfrogging” into more sustainable consumption and production patterns in Africa.

The Remark from UNECA was followed by the remark from the United Nations Industrial Development Organization which was made by Mrs. Maryna Osuna Sanchez, Head of the Cleaner Production Programme. Mrs. Sanchez gave a recount of the achievements that have been registered through the International Cleaner Production Programme that has been jointly implemented by UNIDO and UNEP over the last 12 years. She further outlined the key issues that need to be addressed in terms of reorienting the activities of the National Cleaner Production Centres and the International Cleaner production Programme in the context of the African 10-year Framework Programme on Sustainable Consumption and Production. Mrs Sanchez underlined the importance of promoting cooperation and coordination amongst the UN Agencies and other development partners and expressed UNIDO’s desire to work closely with all other partners.

The final remark before the keynote address was made by Dr. Babagana Ahmadu, Director of Rural Economy and Agriculture, who delivered the remark from the African Union Commission on behalf of His Excellency A.O. Konare, The Chairperson of the African Union Commission. Dr. Ahmadu expressed the full commitment of the African Union Commission in working towards the achievement of the objectives of this important initiative on sustainable consumption and production. He further noted that the Commission considers the issue of sustainable consumption and production as an important emerging issue that the AU Member States should take seriously and in this respect, the Commission is prepared to go into effective partnership with UNEP and other relevant stakeholders in the implementation of the Johannesburg plan of action on sustainable consumption and production. Dr. Ahmadu further underlined that, as one of Africa’s political organs, the AUC is offering to mobilize the political will of our leaders to support the speedy implementation of the 10-year framework programme on sustainable consumption and production. In this regard, he noted, the AUC will engage all its relevant organs in advocacy and sensitization to create the necessary awareness in the AU Member States on this initiative.

Following the remark from the African Union Commission, Mr. Sekou Toure, Director of UNEP's Regional Office for Africa and Facilitator of the High-level Session thanked all of the 'Distinguished Representatives' who made the remarks for their support to the African 10-Year Framework process and reiterated UNEP's commitment to work closely with all the partners in the follow-up activities. He then made a brief introduction of His Excellency President Girma Wolde Ghiorgis in which he praised His Excellency the President as a life-time friend and advocate of the environmental agenda and invited him to make the Keynote address to the High-level Launch Session of the African 10-Year Framework Programme.

In his Keynote Address, President Girma Woldeghiorgis noted that Africa is a continent of great natural riches that is also faced with enormous developmental challenges and he noted that the development and environmental challenge that Africa is facing today are heavily interdependent on one another making it impossible to address one without addressing the other. He further reiterated that Africa's effort to achieve the Millennium Development Goals can only be achieved and sustained through a comprehensive approach that promotes the sustainable utilization and conservation of the its resource. He underlined that it is only through such an approach that we can break out of the prevailing vicious cycle of poverty-underdevelopment and environmental degradation. He lauded the effort that was made to develop the African 10-Year Framework Programme and particularly appreciated the support provided by UNEP and its international and regional partners in developing the Framework Programme.

His Excellency the President underlined that African countries need to seize the emerging opportunities in the area of sustainable production and consumption and promote the development of their economies on a more sustainable basis. He noted that such an approach will allow African countries to achieve a sustained progress on poverty reduction while at the same time it will allow them to hand over a healthy and stable environment to the future generations. In this regard, His Excellency the President extended his call to all African countries to actively participate in the further development and implementation of the 10-year framework programme at national and sub-regional levels. Though the effort to be made by Africans is the most decisive factor for Africa's progress towards sustainable development, the President noted that international development partners play a critical role in enhancing Africa's capacity on further developing and implementing the framework programme. In this regard, the President expressed his appreciation to the initiative taken by the Federal Government of Germany to establish a 'Task Force on Cooperation with Africa' and called upon all development partners to support the regional effort by providing their support to the follow-up activities under the framework programme.

Finally, His Excellency President Girma Wolde Ghiorgis reiterated Ethiopia's commitment to the further development and implementation of the African 10-Year Framework Programme on Sustainable Consumption and Production declared the Fourth

African Roundtable on Sustainable Consumption and Production (ARSCP-4) which will be deliberating on the further development and implementation of the 10-Year Framework Programme opened.

At the closing of the High-level launch session, a Vote of Thanks was delivered by Dr. Teweldebrehan Gebre Egziabher, Director General of the Federal Environmental Protection Authority and winner of UNEP's Champions of the Earth Award for 2006. In his Vote of Thanks, Dr. Gebre Egziabher noted that Africa is currently producing and consuming little, but sadly the little it is producing and consuming is already unsustainable. He further noted that Africa needs to broaden its base of production and consumption and hence it is an appropriate point in its history to redirect its production and consumption to be sustainable. By doing so, he underlined, we, Africans, can avoid the mistakes that other peoples of the world have made while industrializing and we would then always remain at peace with our environment and with our conscience. With those thoughtful words, he expressed his Vote of Thanks to His Excellency the President for gracing the occasion with his presence and for His Keynote Address on behalf of the organizers and the participants of the High-level Session. He finally thanked all other speakers and participants of the High-level launch.

Report of the Fourth African Roundtable on Sustainable Consumption and Production (ARSCP-4)

29-31 May 2006, Addis Ababa, Ethiopia

Organized by

The United Nations Environment Programme (UNEP)

and

The African Roundtable on Sustainable Consumption and Production
(ARSCP)

In collaboration with

The United Nations Industrial Development Organization (UNIDO)

Hosted by

The Ethiopian Cleaner Production Center (ECPC/ESTC)

And

Federal Environmental Protection Authority

The Fourth African Roundtable on Sustainable Consumption and Production (ARSCP-4) was held from 29-31 May 2006 in Addis Ababa, Ethiopia. The Roundtable was opened by His Excellency Girma Wolde Ghiorgis, President of the Democratic Republic of Ethiopia and was attended by more than 80 participants from 32 countries. The Roundtable consisted of four plenary sessions, four parallel thematic sessions and four regional working group sessions. A total of 28 presentations were made during the plenary and parallel thematic sessions covering different topics related to SCP. This is a summary report of the deliberation during the Fourth Africa Roundtable structured as per the three major components of the Roundtable, namely: plenary sessions, parallel thematic sessions and working group sessions.

1. Plenary sessions

The Roundtable consisted of four plenary sessions spread out during the first and third day of the deliberation. The objective of the plenary sessions was to provide all of the participants with the basic information and knowledge on selected topics and areas of applications. The following were the four plenary sessions held during the Roundtable.

- Plenary session one: Regional Status on sustainable consumption and production
- Plenary session two: Topical presentations on sustainable consumption and production
- Plenary session three: Presentation of selected thematic papers
- Plenary session three: Plenary presentations on institutional experiences and programmes

A total of 12 presentations were made during the plenary sessions and the following is the summary report of the plenary sessions held during the Roundtable.

1.1 Plenary session one¹

The first plenary session focussed on the presentation of the summary of the Regional Status Report on SCP that was prepared as an input to ARSCP-4 followed by a discussion on the report. The keynote presentation on the status report was made by Dr Toolseeram Ramjeawon, Adviser to the Ministry of Environment in Mauritius. Dr Ramjeawon underlined the challenges of incorporating SCP at the early stage of industrialisation and as living standards rise and consumption and production patterns change. He stressed upon the fact that SCP need to be put into the specific context of Africa and the overall priority should be that the basic needs of the poor are being met and natural resources are managed sustainably. Dr Ramjeawon presented the summary result of a survey that was conducted to evaluate the status of SCP in Africa.

The result of the survey indicated that Sustainable Consumption tools are very poorly developed while there are differences to the extent of adoption of Cleaner Production in the region. The survey result identified lack of awareness, weak legislation and enforcement basis, lack of institutional capacity and lack of financial mechanisms as principal barriers to a wider adoption of SCP. Dr. Ramjeawon noted that the implementation of the ARSCP project by UNEP had strengthened the Sustainable Consumption and Production activities in the region but the impact and penetration of SCP activities are still limited in most countries. There are very few examples

¹ Chaired by Dr. Patrick Mwesigye, President of ARSCP & Director of Uganda NCPC, assisted by Dr. T. Ramjawan from Mauritius Ministry of Environment as rapporteur.

of integrated SCP activities and SC and SP are mainly approached as separate issues. He finally outlined the future strategic focus which included:

- Achieve general awareness and understanding of the concept among all stakeholders so that SCP is seen as a relevant priority;
- Develop National Action Plans on SCP; Have visible implementation of SCP activities at an early stage;
- Give particular attention to the promotion of sustainable consumption and implement small steps at a time;
- Support the development of concrete demonstration projects in some regions and then replicate them elsewhere;
- Strengthen the Capacity Building programme.

The discussion following the keynote presentation showed that participants realised the importance of putting SCP into the development context and the necessity to have an integrated SCP view for Africa's development. The following are some of the key points that were raised by the participants:-

- The effort that has been initiated to address the lack of capacity in SCP in Francophone countries had to be further strengthened.
- The importance of awareness raising of the SCP concept was stressed upon such that there is a stronger political will in the future.
- Local governments have to be involved in SCP activities and the funding of National Action Plans at the local level must be looked into.
- SCP must be incorporated into the sectoral policies of regional organisations, and also must be integrated into sustainable development strategies and national development plans. SCP has to be linked to poverty reduction strategies.
- There is a need to include other stakeholders more actively in discussion on SCP such as the private sector and NGOs. There is a need for more public-private partnerships in SCP activities. The informal sector was mentioned as an important stakeholder. A framework to reach out to various stakeholders must be developed by the NCPCs.
- SCP must be applied to Agriculture and Natural Resources, besides manufacturing.
- Capacity building activities need to be strengthened.
- The importance of mainstreaming life cycle thinking into the decision making process was highlighted. The LCA tool is still seen as a complex tool by many and there is a need to simplify it and show case studies in the African context.
- The link between SCP and risk reduction and disaster management were highlighted and examples of how SCP could to be integrated into planning guidelines were given.

The plenary session was concluded by underlining the importance of reflecting on the key issues raised during the discussion on the regional status report in the subsequent deliberation during the roundtable.

1.2 Plenary Session two²

The second plenary session covered three topics related to the experience of promoting sustainable consumption and production at the national level. The first presentation focussed on the integration of sustainable consumption and production in national poverty reduction strategies and was presented by Ms. Adriana Zacarias from UNEP Division of Technology Industry and Economics.

Current trends in the usage of resources indicate that by 2050 we will need two planets due to unsustainable patterns of consumption and production, particularly in industrialized countries. This thus adds to the infant mortality rate which is between 80 and 120 and in some instances greater than 120 deaths per 1000 births. Approximately 1.3 billion people live on less than 1 US dollar a day. With nearly 160 million children are malnourished, more than 880 million people lack access to health services and 1.5 billion lack access to sanitation and clean water as a result of pollution of these resources by our production processes. She started her presentation by highlighting the need for shifting to sustainable consumption and production patterns and the different approaches that could be utilized to promote such a transition. She further discussed the benefit of adopting leapfrogging approach for countries in the region and discussed the different facets of the leapfrogging process.

She presented some of the key methods and ways that were identified as a means to integrate Poverty reduction & SCP which included:

- Increase cooperation with Development Agencies and Regional Banks: “Marrakech Cooperation Dialogue”;
- Integrating SCP into the Poverty reduction strategies;
- Integrating SCP in to the sustainable development strategies and national development plans.

She further discussed the results of a survey that was conducted in the context of promoting the Marrakech Cooperation Dialogue with international development agencies, which indicated the following as the potential benefits of promoting SCP: reduction of future costs - 79%; contribution to poverty reduction - 63%; contribution to major environmental challenges - 63%; better access to basic services - 53%; new market opportunity - 47%; enabling leapfrogging - 47%; creating new sources of employment - 37%; reduction of public management cost - 11%.

Ms. Zacarias noted that Poverty Reduction Strategies (PRS) provide a perfect ‘entry point’ for SCP issues in developing countries and pointed out that the integration process can be undertaken in different moments of the PRS process. She further noted that the integration process should address different aspects of the PRS process including: the definition of poverty, SCP as strategic objective, SCP as specific objectives, SCP as cross-cutting objectives, financing and means, monitoring, linkages with key sectors, participation and further implementation. She indicated that UNEP and the UNEP/Wuppertal Collaborating Centre on SCP are developing a Manual on the Integration of SCP in PRSs and UNEP will assist the country teams in the

² Chaired by Professor Cleo Migiro, Secretary of the ARSCP & Director of Tanzania NCPC, assisted by Mr. Mano Ram Reddi from South African Cleaner production Center as Rapporteur.

preparation of the specific text on SCP and in the dialogue with responsible authorities and relevant ministries for the formal inclusion of the specific chapter in their respective PRSP.

The second presentation was made by Ms. Ramtoulaye Dieng of the Senegalese Ministry of Environment and it was focussed on the development of the National 10 Year Framework Programme on SCP for Senegal. Ms Dieng noted that the process was initiated as a follow-up to the Johannesburg Plan of implementation adopted by the World Summit on Sustainable Development (WSSD). Sixteen sectors of the economy were identified and expert groups were formed for each sector in order to further identify the key priority focus for each of the identified sectors. The methodology included a workshop to launch the plan for the different stakeholders with a timetable and dates of action put in place. A follow up meeting was held with all stakeholders to check progress and to provide information on various resources. Sectors and subsectors were defined based on which the preparation for a national report began. The plan of action and the context of the report included:

- Characterisation of the sectors
- Framework document being developed
- Prioritisation of activities within the sectors
- Promotion program for SCP Plan
- The financial plan
- Plan for the follow up process

The exercise has led to the development of the specific actions that could be taken under each of the identified sector and the further refinement and popularization of the framework programme is on-going in parallel with other related initiatives including the integration of SCP in the country's poverty reduction strategy.

The third and final presentation of the session was made by Mr. Sylvester Mokoena from the Department of Environment and Tourism (DEAT) of South Africa and it focussed on the experience of developing a national cleaner production strategy and action plan in South Africa. Mr. Mokoena highlighted the various phases of the process as: Inception Phase, Baseline Study Phase, Drafting Phase, Political Phase, and Launching Phase. The Inception Phase was designed to illicit senior management's commitment. It involved stakeholder identification and the establishment of a steering committee (SC) with the role of the steering committee being defined. The baseline study was conducted in 2004 and it provided a basis for determining national CP priorities. The study reported on current and accomplished CP initiatives and lessons learnt and gave a brief benchmarking of SA with progressive countries with specific focus on industry best practice. Questions regarding why CP is not practised and what policy gaps and other applicable instruments were asked in the process.

Based on the recommendations of the status quo report, a discussion document was developed. Various meetings were held with DEAT and other stakeholders to discuss the proposed document. Stages of amendment and review of the inputs, strategy goals, objectives and options was conducted. In addition, workshops were held to allow stakeholder discussions at National, Provincial and Local levels. This was followed by the political phase which was aimed at involving and informing the political arena in the SCP process and to solicit their approval and commitment. This phase involved presentation of the draft document to DEAT Senior Managers, other relevant ministries and the Cabinet.

A grand launch was carried out by the Minister of DEAT involving key stakeholders from industry sectors, government, community, NGOs and other relevant sectors after which the strategy will be disseminated throughout government and all stakeholders. Mr. Mokoena finally highlighted some of the key lessons that were learnt from this exercise which includes:

- Need for developing information and awareness-raising
- Need to build capacity across all sectors of our society
- Need to support the adoption of Cleaner Production by industry
- Best practices for sustainable consumption and production
- It is possible to legislate Cleaner Production
- Benchmarking South Africa with the rest of the world
- Technology development and cooperation

At the end of the session, participants had a concluding discussion on all three of the presentations and received additional clarification which further highlighted the points covered during the presentation.

1.3 Plenary Session Three³

This section focused on specific experiences related to the implementation of the African 10 Year Framework Programme at the country level. The first presentation focussed on the implementation of sustainable consumption in industrial clusters and was presented by Mr. Edgar Mugisha from Uganda Cleaner Production Center (UCPC). The presentation focussed on the specific application of SCP in an Ethanol Brewing Cluster in Lira Municipality, Northern Uganda. The cluster is engaged in the production of ethanol from molasses which is then marketed to a number of neighbouring countries. More than 2000 persons are involved in this activity, mainly women. The presentation noted that the prevailing conditions of production are causing a variety of environmental damage that includes:

- Spillage of waste molasses causing some significant deterioration to wetlands;
- Deforestation;
- Inefficient use of water.

The cleaner production measures introduced by the experimenters have entailed the following measures:

- Energy: The use of energy saving stoves, the use of biogas digesters, and fuel wood sheds;
- Raw Material: Measures to prevent or reduce molasses spillage and Recycling or reuse of condensation water;
- Waste: Using spillage to generate biogas, manure or compost;
- Emission Reduction: Use of dry fuel wood;
- Occupational Health and Safety: Improved sanitation and hygiene.

The presenter noted that the set of measures taken have had some significant contribution in stopping environmental deterioration, improving socio economic issues, and improving the relationship between producers and regulatory bodies, reducing cost of production, and improving

³ Chaired by Mr. Smail Al Hilali, Member of ARSCP Board and Director of Morocco NCPC, assisted by Dr. Mohamed Tawfic Ahmed from Suez Canal University as Rapporteur.

safety of workplace. The presentation led to discussion of a number of issues and questions including:

- The possibilities of forming cooperatives for the producers in order to help them marketing the products at competitive prices;
- The issue of safety and how to make sure that methanol is not produced as it poses serious health hazard for consumers.

The second presentation was given jointly by Dr. John Idan and Mr Philip Acquah, from Ghana and focussed on ‘Waste to energy conversion for sustainable sewage and health care waste management’. In this presentation the main emphases were on the production of biogas from sewage and health care waste. The presenters portrayed the limitations of the current methods of handling sewage and health care waste. Impacts such as gas emission, explosions, overflow of cesspools and excessive land use were discussed. The presenters introduced the component of the biogas production unit, with special reference to the anaerobic digester used in Accra psychiatric hospital. The volume of biogas produced per year in a number of digesters was also presented.

The presenters have also shown how generated biogas is used in fuelling hospitals kitchens and operating refrigerators. Part of the presentation has focused on the use of treated effluent water, its quality and its use in landscaping and woodlots around the respective areas. The monitoring parameters of the treated effluent indicated good compliance with acceptable standards. Among the parameters used were: chemical oxygen demand, biological oxygen demand, Nitrate – Nitrogen, total dissolved solids, and total coliforms.

In another part of the study, the presenters showed the economical along with the environmental benefits of the project. Economic benefits included:

- Eliminating cesspit emptying for off side disposal;
- Recycle of treated effluent for landscape and woodlot;
- Cost saving for septic tanks;
- Water use reduction for cistern modification;

Meanwhile, environmental benefits would include:

- Reduction of resources degradation by dumping untreated sewage
- Mitigate climate change caused by methane and nitrous oxide
- Prevention of on site burial of HCW such as placenta and the likes.

The presentation has brought a number of questions and comments from the floor which included the service life of the digester and the ability of the system to handle pathogenic organisms and how safe is the process. It was noted that in view of the material from which the digester is constructed, it can provide a service span of 60 years. The presenters also indicated that the methodology used would ensure that all pathogenic organisms would be entirely eliminated in view of the used temperature of the digestion process.

The last presentation for this session was made by Mr Samba NDIAYE from the Senegalese association for the protection of environment and consumers (ASDEC) and focused on the “Xewalu consommateur bi” project. He started his presentation by presenting the goal of the project, duration, partners, localization and strategy. The project aims mainly to help the target

population (consumers) to participate to sustainable development through developing a training program on sustainable consumption modes.

Mr Ndiaye presented also the components of the training program:

- promoting functional literacy;
- organizing meeting with public to discuss environmental issues;
- promoting activities generating incomes;
- Organizing conferences and films projection.

The presenter then described the different results that have been obtained after two years of implementing the project: 6600 beneficiaries including 4950 women (75%) trained on cleaner production tools and issues related to:

- Global warming due to excessive energy consumption and deforestation of tropical forests;
- Impact of Desertification on agriculture and farming;
- Impact of the excessive use of pesticides;
- CFC, HFC and HCFC effects on the ozone layer;

Regarding poverty reduction, Mr Ndiaye showed that the program promoted activities on sustainable consumption and production that generates incomes to the targeted population through the promotion of activities such as household garbage valorisation, reforestation, etc. He finally concluded his presentation by highlighting the constraints, difficulties faced and perspectives.

1.4 Plenary Session Four⁴

This session covered institutional presentations made on topical issues that are related to the promotion of sustainable consumption and production in the region. The first presentation was on 'APELL-UNEP's Programme on local emergency preparedness' and was made by Ms. Adriana Zacarias from UNEP-DTIE. Ms. Zacarias noted that Awareness and Preparedness for Emergency at Local Level (APELL) is a tool for disaster preparedness that prepares and informs local communities and builds their capacity to prevent and to be prepared to respond effectively to industrial and natural disasters. The key elements of APELL are:

- Awareness focusing on potential risks,
- Stakeholder involvement,
- Emergence response plans,
- Warning systems,
- Coordinated responses and
- Disaster preparedness exercises etc.

She noted that, APELL has been successfully applied to various sectors that include transport, mining, port activities etc. Training kits are being developed for use to build Local Authorities' capacity to respond effectively to natural disasters. These tools are used to develop a community risk profile. APELL should also be used to determine risk potentials that can be included in corporate social responsibilities. To date 30 countries from mainly the Asia-Pacific Region have benefited from capacity building activities of the programme. However, while there is

⁴ Chaired by Mr. Philp Acquah, Member of the ARSCP Board, assisted by Mr. Morris Chidavaenzi, Director of Zimbabwe NCPC, as Rapportuer.

a plan to include Morocco in the next phase, it was observed that there are no activities in the African region at the moment. UNEP will promote APELL in Africa through demonstration projects and through capacity building at national level through focal points.

The second presentation for this session was on UNIDO's Experience on Solid Waste Management, which was presented by Mrs. Mayra Sanchez Osuna from UNIDO. Mrs. Osuna noted that UNIDO is introducing two integrated solid waste management approaches, namely:

- Cleaner Municipal solid waste management, and
- Cleaner Industrial solid waste management

She further noted that UNIDO has been promoting the application of an Integrated Solid Waste Management on both of the above areas and focussed on the highlights of the experiences from integrated solid waste management projects carried out in China, Cuba and Tanzania. The China Municipal Solid Waste Management project, despite having had the most difficult institutional arrangements, showed that;

- A strategy can be developed, accepted and adopted nationally,
- A training manual is an important tool for capacity building and ensures continuity after project phase out,
- Implementation of such projects can be done in a pilot city,
- A monitoring system and waste management control laboratories are essential components, and that,
- The implementation strategy should include alternative ways for ensuring that producers of waste pay for collection and processing of their waste.

The Cuban Experience involved designing a project for a city community of 10000 houses. This project was implemented with technical assistance from Switzerland. The major achievements of this project included;

- Reduction in the quantity of waste for final disposal and increased the life-span of the disposal site
- Promoted separation or waste segregated collection
- Promoted the establishment of a composting plant that produces high quality compost and of a digestion plant, etc

Several materials have been developed for raising awareness in the local community. The project has also been used to highlight the immense cost and sustainable development benefits of ISWM and CP to the present and future generations.

Similar experiences have resulted from the Tanzanian Sisal Industry Project, which is applying the "closing the loop and zero-waste concepts or approaches" whilst incorporating poverty reduction aspects in the revival of the industry. The waste from the sisal industry has found many economically viable uses as animal feeds and in energy production. Innovation has also led to the production of not only fibre, but additional more-valuable products used in the pharmaceutical industry.

These experiences show that the SCP approach to ISWM is a profitable business approach with inter-generational benefits. She finally noted that African countries can benefit from these experiences by accessing information and technical assistance from UNIDO.

The third presentation was on ‘Ultraviolet (UV) disinfection of drinking water’ which was presented by Mr. Clive Wafuko from Ivory Consult. He noted that Ivory consult in partnership with Trojan UV, a global water treatment technology company based in Canada, is carrying out a collaborative pilot project on the use of UV to disinfect drinking water. The presenter highlighted the effectiveness of UV light in inactivating a wide range of pathogens and several advantages arising from its use. However, UV light effectiveness is adversely affected by high turbidity, high suspended solids content and colour. UV light can be applied to drinking water, groundwater, process water, and to wastewater.

The requirements for setting up a UV light drinking water disinfection unit include either, low, medium or high-pressure lamps as may be determined by design dose requirements. Some of the essential requirements of the system include flow regulation and raw water quality control with respect to turbidity, colour and suspended solids content. Generally designs that reduce the number of lamps reduce the cost of a treatment unit.

Although UV light disinfection can be applied at any point, the proposed project will investigate its application at the point of use at the household level through the modularization and miniaturization of the technology. The pilot project will involve 300 households in Nairobi. Stakeholders interested and willing to participate in the project were invited to express their interest in time for the project’s planned launch in September 2006.

The fourth presentation was made on ‘Key Issues on Hazardous Waste Management in Africa’ and it was presented by Professor Oladele Osibanjo from the Regional Centre for Basel Convention in Nigeria. Professor Osibanjo noted that hazardous waste management is a serious issue in Africa where countries continue to be victims of hazardous waste dumping. The priority hazardous wastes in Africa include:

- Health care wastes
- Pesticides and other chemicals
- PCBs
- Used oils
- Used tyres
- Used automotive and dry cell batteries
- Electronic wastes (e-wastes) etc

The major problem in Africa is that there is generally lack of awareness that cheap used goods are a way of hazardous waste dumping, that many countries practice disposal and not proper hazardous waste management. Some countries even burn waste that contains hazardous waste materials thereby releasing dioxins into the atmosphere. There is gross and widespread environmental contamination from hazardous waste to the extent that there is excessive human exposure to hazardous waste.

The presenter also highlighted that it is possible to convert hazardous waste into useful products. Awareness raising materials that include the CD on the “Digital Dump” are available. Finally, he noted that the Regional Centres of the Basel Convention that are based in Nigeria, Egypt and South Africa will collaborate with the ARSCP and the NCPCS to implement the 10-YFP, build

capacity, increase awareness, transfer technologies and conduct research and consultancy services that will improve hazardous waste management in Africa.

The final presentation was on ‘The Potential to use ESTIS in Africa’ which was made by Mr. Desta Mebratu from UNEP. He described ESTIS as an information knowledge exchange system that was developed by UNEP to bridge the information gap on the transfer of environmentally sound technologies and knowledge. He noted that ESTIS can:

- Serve as a platform for individual and institutional users to exchange information and technologies for sustainable development
- Support for building an internet-based information system such as a website
- provide Links to the ESTI community, and
- Facilitate the creation of interface between languages to enable inter-language information exchange.

Finally he invited SCP practitioners in the region to participate in the initiative and make use of the available detailed guidance and training by registering through the website to get online support.

2. Parallel thematic sessions

A total of sixteen papers were presented and discussed under the following four thematic sessions:

- Water Services and Utilization
- Environmental education and training
- Waste Management
- Eco-labelling

The four thematic sessions were held under two parallel sessions enabling participants of the Roundtable to attend one of the two parallel sessions. The following is the summary report of the parallel thematic sessions.

2.1 Water services and utilization⁵

The first presentation under this session was made by Ms. Anja Buwalda from Ivory Consult under the title ‘Community Water Supply Service through Collaboration’. In this presentation, Ms. Anja shared the success story of the Kisangani Christian Community Development Program in Kenya. She started with the description of the water shortage problem in the Kisangani area and the various options that were considered in terms of their suitability and reliability for water provision to the local residents and their pros and cons discussed by the community at length. An Environmental Impact Assessment (EIA) was undertaken for the project so as to develop mitigation interventions for its negative impacts on the environment since the project was to impact on wetlands, volcanic rocks, hills and the entire community dwellings.

The project ensured that water availability in the community was now less than 1 km away and was more affordable to them. Water availability all the year round enabled the locals to start economic ventures such as the growing of vegetables and fruits as an economic empowerment venture. One of the lessons learnt was that collaboration can achieve more than single intervention measures at minimal cost. She explained that in order for a collaborative venture to work certain cardinal points need to be adhered to. This includes:

- Ensuring that collaborators are accountable to each other and constantly share information,
- They should set aside corporate agendas and develop a mechanism for conflict resolution and the need for the active participation of locals on the basis of their technical skills.
- The locals need to be trained and retrained so as to change their mindsets on the basis of the realities on the ground.
- Emphasis has to be given to a bottom-up approach by the project implementers that entail building on existing resources in the community.
- Accountability must be to the community if the project has to be sustainable.

She noted that this project was a collaborative venture on the basis of public private sector partnership with the community taking a central role in its implementation.

The second presentation was made by Dr. Ife K. Adewumi on ‘Developing Electro-Coagulation and Non-chemical Treatment Technologies for Water and Waste Waters’. Dr. Ife observed that most African countries have inadequate portable water supplies, a development that is closely associated with the proliferation of water borne diseases that have normally resulted in

⁵ Chaired by Professor Cleo Migiro, Secretary of ARSCP & Director of Tanzania NCPC, assisted by Mr. Kelvin Khisa, Deputy Director of Kenya NCPC as Rapporteur.

high mortality rates in the continent. He stated further that most urban cities are characterized with irregular piped water supplies with the taps staying dry most of the year round and with chemical coagulants running out of stock on a routine basis.

He pointed out that mineral chemical use for water treatment is associated with the generation of sludge waste that is associated with environmental contamination. The unreliability of portable water in terms of quality and quantity has resulted in the proliferation of mineral water companies that are now associated with the PET bottle plastic waste management dilemma. He observed that many water development technologies nowadays rely on adsorption, micro-filtration and electro-coagulation technology. Electro-coagulation technology is a low energy input option and has advantages with respect to the use of less capacity sedimentation tanks, less filter bed sizes and enables easier recycling of sludge.

He further went on describing the experiment that has been carried out on a 3-cell and 5-cell electro coagulation unit and described the results obtained which included the following:

- The aluminium scrap electrodes were effective in electro-treatment of the different samples;
- Activated carbon alone has not been able to conduct electricity, so blending of it with graphite and/or aluminium is under experimentation;
- The experiment has led to a substantial removal of impurities that were studied.

The third presentation was made by Dr. Feleke Zewge under the title 'Solution to the Fluoride Problem in the Rift Valley of Ethiopia. He started his presentation by describing the Fluoride problem as the most common problem in ground waters in the Great Rift Valley Region in Africa and other parts of the World affecting millions.

He further on outlined the scope of the problem in the Ethiopian Rift Valley Region and highlighted some of the possible solutions that could be considered to address the problem. Next, he presented a summary of existing fluoride treatment technologies in which he informed the meeting that whereas Kenya and Tanzania use bone char for removing fluorides in water, Ethiopia uses activated Alumina due to cultural reasons. In Tanzania, bones are charred, hand crushed and stored for use in water treatment while in Kenya, the bone char is mechanically crushed and stored for use. He observed that fluoride levels in the Rift Valley waters are in the range of 3 – 37 mg/l.

The Ethiopian activated alumina (alum and lime) fluoride treatment system is very effective in removing fluoride in the water as it has also been adopted in India. He informed the meeting that further work needs to be done so as to establish some statistical correlation between fluoride reduction in water and the levels of fluorosis. He then made a detailed presentation of the activities that were carried out under a pilot project that was aimed at establishing defluoridation systems at community level to reduce the fluoride content to less than 1.5 mg/l according to WHO standard or at a maximum of 3 mg/l. He concluded his presentation by sharing the key conclusions of the project, which included the following.

- The unit designed and developed by the project could reduce the fluoride concentration to the level below 3 mg/l at the optimum operating conditions chosen.
- Running cost can be covered by the community, however initial capital cost may require subsidy from concerned organizations.
- Operation and maintenance can be carried out by semi-skilled manpower provided that proper training and guidance is given.

- This method is recommended to areas with fluoride concentration less than 10 mg/l.
- Further strengthening of Community Water Management System and awareness is important.

The fourth presentation was on ‘Evaluation of the Sustainability of Wastewater Treatment Systems in Africa using the LCA Tool’ and was made by Dr. T. Ramjeawon. He noted that a sustainable wastewater system should over a long time perspective provide required services while protecting human health and the environment, with a minimum use of scarce resources. He further noted that:

- Most publications base the assessment/comparison on the operation of the treatment systems, not on the full life cycle.
- By wastewater treatment we may contribute to solving one problem (the receiving environment) but the technology chosen may contribute to the creation of other problems (e.g. by being very energy consuming)
- Sustainability concept challenges us to look at wastewater treatment systems from a life cycle perspective and to introduce long term thinking (changes the wastewater concept from end of pipe treatment towards resource utilisation)
- A well-structured methodology tool is needed for assessing sustainability and decision-making- Life Cycle Assessment (LCA).

He presented the constraints to the application of LCA in Africa as being low levels of awareness, limited internal capacity, weak collaboration among LCA experts and limited background data. Next, he highlighted the major lessons that could be learnt from the application of LCA on water treatment systems, which included the following.

- All the LCA case studies highlight the importance of selecting system boundaries that allow full comparability among options.
- One of the key issues in shifting societal development in a more sustainable direction is the establishment of recycling plant nutrients, especially phosphorus.
- Conventional systems are primarily designed for protection of public health and functions well in this respect. Upgrading of the plants is dedicated mostly to end-of-pipe technology. This reactive approach to environmental problems complicates the transition towards more sustainable urban water systems with focus on reuse of water and nutrients.
- Conventional sewerage systems are not suitable as a blanket solution for developing countries, particularly in arid zones. All approaches to sanitation should be brought into mainstream thinking. There is a tendency for the separation and recovery approaches to sanitation to be seen as something” way out” and different, whereas it is important that they are considered part of the continuum of systems.

He finally made some conclusions and recommendations, which included the following:

- It is being questioned nowadays whether the conventional concept, characterized by centralized structures, mixing of wastewater streams of various qualities, and open loop design is suitable to fulfil the new requirements in terms of sustainability.

- Before spending a lot of money in developing countries into traditional sanitation systems, it is necessary to assess the various technological options available with regard to their sustainability (economics, environment and social).
- Environmental sustainability is often vaguely defined and clear measurement procedures are lacking. A well-structured methodology tool is needed for assessing sustainability and decision-making.
- Life Cycle Assessment (LCA) is an important tool to indicate whether sanitation systems are developing in a sustainable direction.

The final presentation under this session was made by Dr. Patrick Mwesigye who highlighted the experience of an industry in waste management in an industry in Rwanda. Sakirwa Factory, based in Kigali Rwanda, is a three in one factory that is involved in the manufacture of soap, cosmetics and plastics. Due to the associated environmental problems, there was an earlier consideration of relocating the factory from Kigali to a newly established Industrial Park. This move was not feasible and instead the parties resolved to embrace Cleaner Production (CP) as a way of improving on the factory's general environmental performance. The Ugandan Cleaner Production Center (UCPC) and Morocco Cleaner Production Center (MCPC) were contracted by UNEP to provide CP training to selected industries including Sakirwa and assist them to demonstrate CP application in their respective industries.

The cleaner production team that participated in the training conducted a CP assessment in the industry and developed a cleaner production implementation plan which included:

- Effective Recycling of Waste Water
- Improved production Techniques & House Keeping
- Improved re-circulation of cooling water system
- Rain Water Harvesting

The above measures enabled the industry to completely close the water cycle loop having a zero water discharge from its industry and achieving a 20% reduction in its water consumption during the rainy season. The measures taken on the basis of the CP assessment resulted in an immense savings for the company and also improved the company's image in the surrounding community.

2.2 Waste Management⁶

The first presentation under this session was entitled 'Aerobic composting: an engineering solution to municipal solid wastes problems in local government areas of Nigeria and was jointly presented by Mr Tunde Tairu & Dr Ife K Adewumi. A video-supported presentation was made on the creation and implementation of an aerobic composting system: organo-mineral fertilizer production. This is a joint project between research institution, government and the private sector and was implemented by the Waste Recycling and Environmental Management Research and Development Organization (WREM). The organo-mineral fertilizer production system works according to the following process.

⁶ Chaired by Prof. *Oladele Osibanjo*, Director of the Basel Convention Regional Coordinating Centre for Africa for Training & Technology, assisted by Ms. Christina Battaglion from Mozambique Cleaner Production Center as Rapportuer.

Organic municipal waste is collected and distributed in various chambers where they are aerated, then it is processed through a mechanically sorting machine which collects the needed component, it then goes through a pulverizer. The compound is then mixed with nutrients: nitrogen (taken by cow urine) and phosphorus (collected from Neem seed). The final product is an organic fertilizer. Various fertilizers (hence the nutrient component varies) are created according to the needs. The product is packed in bags of 50kg and sold to the local farmers. Leachets (liquid waste) is generated by the process which is collected via a drainage system and stored. This liquid waste is stored in a pool and added to the compost when its pH has been found to be low. The final compost/fertilizer is analysed for its pH. The project has demonstrated to be a self-sustaining activity that can create job opportunity for many.

The second presentation was on 'Recycling billet scales as fine aggregate in construction' and was presented by Engr. A. Akindahunsi. He presented a case study of recycling billet scales from steel rolling mills which present a problem in Nigeria. Such study was also driven by the fact that the price of construction material (concrete) is increasing. The study looked at the potentialities for replacing sand component from concrete making process in which normally 1 (part cement) is mixed with 2 parts (sand) and 4 parts (water), with billet scales.

Tests have proven that such replacement is possible generating no change in final product. The test results have shown that:

- At 15% replacement of sand with billet scales, strength developed was higher than that of the control mix. This makes it very useful for reinforced concrete works in construction industry and with the use of appropriate plasticizer higher percentage of it can be utilized for structural works.
- The result of sieve analysis shows that billet scales compares well with sand, this shows that it can be mixed in appropriate measure with base and binding course materials for use in road construction.
- The 75% replacement in concrete will find good use as geotextile material in erosion control and slope embankment design and would be useful in addressing the problem of sheet and gully erosion in parts of Nigeria.

The third presentation was made by Dr. Ife Adewumi under the title 'Solid waste management in Nigeria: Efforts towards a paradigm shift of waste to wealth stratagems. Dr. Adewumi described the major characteristics of municipal solid waste in Nigeria and highlighted the common features of municipal solid waste management in the region. He indicated that based on the available information about 30% of the waste collected in urban centres in Nigeria could be recycled into useful resources. He outlined the major steps for valorisation of waste which included the sorting/segregation, collection and transportation methods for recyclable waste. He then particularly focused on plastic recycling process which has become a thriving business in Nigeria. He also presented the different products produced from metal scraps. He concluded his presentation by saying that:

- Recycling of significant proportion of the municipal solid waste is viable for most African urban centres;
- There is growing local knowledge base in the region in terms of developing the required equipment and infrastructure;

- Valorisation of municipal waste can create wealth for both workers and entrepreneurs thereby contributing to the economic development agenda of the country;
- The Nigerian experience has shown that there is a good potential for public-private partnership in promoting the waste to wealth paradigm in the region.

The final presentation of the session was made by Dr. Getachew Asefa from the Industrial Ecology Department of the Stockholm University and was on ‘Systems analysis of waste management: the Swedish experience’. Dr Assefa presented a study that was undertaken by the Swedish University that was focussed on looking at the wider picture of an integrated solid waste management system (ISWMS) through Life Cycle Assessment (LCA) and Life Cycle Costing (LCC) practice. The presentation noted the debate that has been going on whether recycling or incineration of old plastics is a better alternative and he indicated that as per the peer-reviewed results from different studies, recycling option should be favoured since it avoids high energy consumption of producing virgin plastic and the emission of greenhouse gases during the virgin plastic production.

He further on described the different modelling approach that could be utilised in undertaking such an analysis. He highlighted the key elements that will determine the system boundary, which includes:

- Model subsystems and aspects that are expected to be most relevant to the scope of the study
- Characterize relevant subsystems even using uncertain data in stead of excluding them
- Complexity versus transparency
- Separate analysis: economic part and environmental part
- Integrated presentation – facilitates discriminating tradeoffs e.g. finding economically and environmentally efficient solution

He underlined that developing waste management systems in the African context has to be understood as more than managing the waste as it could contribute to the socio-economic agenda of the region in different contexts. He finally highlighted some of the challenges that could be faced in implementing such an approach in the region.

2.3 Environmental Education and Training⁷

The first presentation was made by Dr. Getachew Assefa from the Royal Institute of Technology in Stockholm under the title ‘Reflection on six graduate programmes from the perspective of education for sustainability’. In particular the paper looked at the role that Higher education can play towards sustainable development. Dr. Getachew mentioned that he had carried out a study on 6 graduate programmes as part of the subject matter. The programmes were in the natural sciences and engineering field, with three being at the Royal institute in Stockholm and the other three at Addis Ababa University.

He reflected on education on sustainable development in the context of the 4 pillars of education as highlighted by the International Commission on Education for the Twenty-first Century which underlined that achieving sustainable development requires education provides the skills for:

⁷ Chaired by Dr. Evans Kituyi, member of the ARSCP Board from the University of Nairobi, assisted by Mr. Edgar Mugisha from Uganda Cleaner Production Centre as Rapporteur.

- Recognition of the challenge - Learning to know
- Collective responsibility and constructive partnership - Learning to live together
- Acting with determination - Learning to do
- The indivisibility of human dignity - Learning to be

He highlighted some of the major features of education for sustainable development, which included the following:

- Interdisciplinary and holistic: beyond piecemeal analysis and disciplinary discourse
- Values-driven: making shared values and principles underpinning SD explicit and opening up for examination, debate, test and application
- Critical thinking and problem solving: addressing the dilemmas and challenges of SD
- Multi-method: different pedagogical approaches
- Participatory decision-making: participation of students in decisions on how they are to learn
- Applicability: integration of the learning experiences offered with the day to day personal and professional life
- Locally relevant: addressing local as well as global issues, and using the language(s) which learners most commonly use

Based on the outcome of the review, he highlighted the key issues, including the following, which need to be considered in developing such programmes given at the universities.

- A well-defined core content: Meeting some minimum level of defined requirements
- Different learning styles: Flexibility, avoid one-size-fits-all tendency, strive to address the needs of individual students or groups of students with common background
- Structure and content: facilitate participation and continuous revision
- Appropriate instructional methodologies
- Focus on national, regional, and global challenges such as transport, energy, and water issues.

Dr. Assefa summed up his presentation by citing some of the barriers that have to be overcome in promoting sustainable development in education. The barriers were both external and internal and were mainly in reference to the three programs at Addis Ababa University. The internal barriers included: lack of information, lack of training, weak communication with external partners, no time for arranging inter-disciplinary structures, resistance to change, and poor organisational structure. The external barriers included: lack of funding, Research not being interdisciplinary in nature, lack of support from University administrators, and regulations

The second presentation was by Dr. Charles Mbohwa from the University of Zimbabwe on 'Experience in education and training for sustainability at the University of Zimbabwe. In particular it looked at Case studies of what has been done within the University of Zimbabwe. He noted that education and training has been carried out in areas such as, wind energy systems and economic; conventional energy management; renewable energy issues; environment/sustainability assessment and CP. Some of the training has been through taught programs such as the Masters in Renewable Energy or the Masters in manufacturing engineering. There is also a continuing education program that was started in 1995 which tries to address CP, EMS, LCA-EIA, among others.

The education and training programmes have benefited from links with a number of development partners such as UNDP, GTZ, and DED; and also from academic institution such as Reading University in the UK, Norwegian Institute of technology, Erasmus University and University of Amsterdam. Some of the outputs of the education and training include; 50 CP studies in different companies in Zimbabwe; installation of 10,000 solar home systems; 41 graduates from the Masters Program in manufacturing engineering taught aspects of CP.

A number of lessons have been learnt such as the essential nature of consultations; the need to network internationally; the need to broaden skills; the need to carefully manage conflicts in areas of research etc. In conclusion of his presentation, Dr. Mbohwa stated that it was possible to have sustainability courses within existing courses and that there is need to look at aspect such as Design for Sustainability (D4S) in the future. Other courses that could be considered include industrial ecology & sustainable systems.

The third presentation was made by Mr. Hanchi Belgacem of the International Centre for Environmental Technology Transfer (CITET) based in Tunisia. Mr. Belgacem's presentation was on *Capacity building and training activities at CITET*. He noted that CITET was established in 1996 and aims at building human and institutional capacity in the field of environmental protection. It runs more than 100 training courses in the field of environment including waste management; noise pollution; environmental evaluation; atmospheric pollution, among others. Among its major achievements since it began its training programmes in 1997 is the fact that up to 18,595 participants have been trained and the figures have increased year on year.

Postgraduate programmes commenced 2 years ago – Masters in environmental technology; environmental communication; environmental economy; and Health, Security and Environment. A number of overseas students have since enrolled in some of the courses. The presentation was concluded by citing CITET's objectives for 2006 which are; development of new training modules; cooperation with new partners; and identification and establishment of new opportunities.

The final presentation of this session was by Dr. Mohammed Tawfic, from the University of Suez Canal. Dr. Tawfic's presentation was on Mainstreaming Environment into University Education. It was essentially a summary of a workshop of the same theme that was held in Nairobi a few weeks ago, where he was one of the participants. He started by giving a brief on the Decade for Sustainable Development (2005 – 2015) an initiative that has been launched by the UN. The aim of the initiative is to integrate sustainable development aspects into all aspects of education. It has five mandates which focus on:

- Holistic approach
- Innovative way of teaching
- Opening to indigenous knowledge
- Bridging the gap between empirical and scientific knowledge
- Use of ICT
- Changes to paradigm

On the subject matter of the Nairobi workshop on Mainstreaming Environment into University Education that was organized by UNEP, Dr. Tawfic mentioned that its commitments were: Institutional capacity; environment and sustainable development learning in universities; strengthening networks between universities; relevance of universities communities; and increased awareness of sustainable development. UNESCO, AAU, Global Virtual University, United Nations University, among others were mentioned as some of the partners in the workshop.

Kwame Nkrumah University in Ghana was cited as a successful case study of a university that has incorporated sustainable development in its programmes. It was also noted that partners such as UNEP are helping to spearhead similar initiatives through online environmental education. UNEP is helping sponsor Online Access to Research on the Environment (OARE) which is an online education tool that will enable 900 institutions in the developing world to access online journals. OARE is to be launched in October 2006. Regional Centres of expertise which are branch of the UN University are expected to do the same, with research and training being their main area of focus.

2.4 Eco-labelling⁸

There were four presentations delivered during this session which were followed by discussions. The first presentation was made by Mrs. Souad Benromdhane - Kilani, from the International Centre for Environmental Technologies of Tunisia, under the title "**Eco-labelling Tunisian Products-The Road to Global Market**". The presentation constitutes three sections, the first dealt with the relationship between international trade and the eco-labelling which included the history of emergences of eco-label, the relationship between trade and environment, and the need for ecological label. The second section dealt with the concept and definition of eco-label which included the three types of environmental performance labels:

- Type I (Eco-labels, a volunteer program, certified by a third party based on a product life cycle),
- Type II (Environmental Declaration by the enterprise) and
- Type III (Environmental Declaration through quantitative information based on parameters established).

It was explained that the Tunisian ecolable is of Type I and made for selected products that are relevant to the Tunisian export to European Union. The life cycle approach with multiple criteria based on the ISO 14020 and ISO 14024 standards was followed. It was also indicated that the main challenge in the process was defining the institutional and legal framework, showing the eco-label management structure enabled the multi criteria were met.

The second presentation was made by Mr. Smail Al-Hilali, Director of the Morocco NCPC, under the title "Textile Eco-labels: Basic EU Regulations and Standards and African Initiatives". The presentation focused on three areas, the first being the explanation of the main requirements of EU environmental regulations relevant to textile processing. In this regard it was explained that the main EU regulations related to textile formaldehyde, azoic-dyes, flame-retardants and nickel content in the finished textile are the main requirements to which standard limit is set. The second issue dealt was the main textile labels, citing some examples like IKEA, Blue Angel, and European

⁸ Chaired by Ms. Jane Nyakang'o, Director of the Kenyan Cleaner production Center, assisted by Mr. Debebe Yilma, Deputy Director of the Ethiopian Cleaner production Center, as a Rapportuer.

Flower with especial emphasis on Eco-Tex 100 Standards. It was also explained that there are much more Eco-Tex 100 Standard certificates than EU environmental label or wool mark seal, indicating the high level of acceptance of Eco-tex 100 by the textile industry sector. The third focus of the presentation was citing two initiatives in Africa that helped the textile sector: the "Fibre Citoyenne" that have been designed to provide guidelines and tools to textile enterprises and their customers on quality environment and social responsibility over the whole textile process, and the second being on promotion of bio-cotton in West Africa.

The third presentation was made by Mr. Kelvin Kisha, Deputy Director of the Kenya National Cleaner Production, under the title "Use of Technology Needs Assessment (TNA) as a tool for Promoting Successful Technology Transfer into the Kenyan Dairy Sector". The presenter started by stressing that globalization is causing more challenge and providing more opportunities. Then he explained that TNA was developed by UNIDO as "Technology Transfer: Assessing Needs-Promoting Action" mentioning that it is endorsed at WSSD to strengthen the capacity of countries in assessing their technological needs, and that it is applicable at enterprise, sectoral and national level. The tool has enabled the Centre to assess the Kenyan dairy sector and come up with useful findings and conclusions. The main findings were:

- technology is the key to the growth in Dairy Sector,
- Environmentally Sound Technology (EST) is mandatory if sector is to compete favourably in the global market,
- the government of Kenya at this point in time didn't provide the required level of enabling environment to the sector.

The main conclusion made through the assessment evaluated the government and the firms as reactive, and the sector as strategic.

The fourth Presentation was made by Dr. Nebiyeleul Gessese, from Global Development Solutions, under the title "An Overview of Integrated Value Chain Analysis (IVCA) of Selected Strategic Sectors". The presentation demonstrated that how the integrated value chain analysis helps to identify the potential areas of focus for performance improvement of the sectors, by calculating the relative significance of the value adding processes to the delivered price of an end product. Moreover, the presenter has identified the key constraints and challenges of the sectors to show the use of the results of an IVCA to identify technical, financial and administrative interventions to improve competitiveness of strategic sectors. This was demonstrated through applying the tool in the Ethiopian skin, leather and shoes sector, as well as in the housing and road construction sector. Finally the presenter stressed that the tool complements the LCA and other environmental management tools.

Several issues were raised during the discussion session:

- One of the issues raised was that the eco-labels are mainly driven by external driver, mainly export market, and there is no noticed internal driver for eco-label in the African countries. It was also mentioned that the eco-labels also help the enterprises to improve their competitiveness in the local market too.
- The other main issue raised was the need for financial support to African enterprises to implement such environmental management tools like eco-label, and the presenters have shared the experience of Morocco and Tunisia. It was explained that previous effort to promote implementation of ISO 14001 in the Tunisian enterprises failed; but the eco-label is found to be

more successful because it is being promoted as a marketing tool for the enterprises. Moreover, they are provided with technical assistances. Similarly, in Morocco, the SMEs are given financial assistance up to 70% of the cost of study and consultation, by the government, and 40% of the cost of environmental equipment acquisition.

- The other issue raised was how the commitment of the government was attained. It was explained that it took two and half years to develop the Tunisian Eco-label and now it is at the final stage of development.

3. Report of the ARSCP General Assembly

The meeting was called into session at 09.30hrs by Dr. Patrick Mwesigye, who is the President of ARSCP and chair of the business session. He welcomed all members to the 2nd General Assembly of the ARSCP. In his opening statement, the Chairman informed the members that the Charter of the ARSCP stipulates that the members who attend the regional roundtable on sustainable consumption and production (ARSCP) constitute the quorum of General Assembly. The chairman further informed the members that the Charter is however silent on the new participants for the regional roundtables. In this respect the Chairman decided to give a blanket

membership to all participants of the ARSCP 4 who attended the General Assembly and hence all of them became members of the ARSCP with voting rights during the General Assembly. Thereafter the members adopted the following agenda for the meeting:

1. Introductory Remarks from the Chairperson
2. Report from the Secretariat
3. Discussion
4. Election of New Executive Board
5. Any Other Business

3.1 Introductory Remarks

While delivering his introductory remarks, the Chairman started by introducing the Executive Board Members that served the ARSCP for the period May 2004 to May 2006. He said that the Board Members were elected on regional basis and that the Board comprised five members, four from institutional and one from individual members, as per the requirement of the Charter.

The Chairman briefed the General Assembly about the ARSCP with respect to its organization structure, legal status and membership categories. He told the General Assembly that the ARSCP in collaboration/consultation with UNEP and SCP promoting institutional members within the region carried out various activities during the first two years of its establishment.

The Chairman further informed the General Assembly that the ARSCP encountered few challenges in running its operations during the two-year of its operation. He said that details on the implemented activities and challenges encountered will be presented by the Secretariat.

Before inviting the Secretariat to present the ARSCP report for the period May 2004 to May 2006, the Chairman informed the General Assembly that the issue of membership fees was not discussed in Casablanca when the ARSCP was constituted because members were given time to digest and propose appropriate figures. He therefore informed the GA that the Board has come up with proposed figures for the membership fees which would be tabled during the General Assembly for discussion and approval.

3.2 Report of the ARSCP

The Activity and financial report of the of the ARSCP for the period May 2004 to May 2006 was presented by the ARSCP Secretary, Prof. C. L. C. Migiro, who is also the Director of the Cleaner Production Centre of Tanzania (CPCT). The CPCT served as an Interim Secretariat during the same period.

The ARSCP report included, among other issues; implemented activities, income and expenditure, challenges and way forward. It was reported that during the reporting period the ARSCP in collaboration with other actors and partners implemented the following activities, among others;

- registering and operationalizing the ARSCP in Tanzania;
- providing technical inputs to national and sub-regional roundtables in Kenya, Ghana, Ethiopia, Mauritius and Senegal;
- Facilitating information exchange within the region by designing and launching a ARSCP website, producing flyers and newsletters;

- providing the required facilitation and coordination input to the development of the African 10YFP at two stages of its development;
- providing inputs to the production of a regional status report on sustainable consumption and production in Africa;
- developing project concept notes; and
- providing inputs to the preparation of the ARSCP 4.

The Secretariat further reported that the ARSCP signed two MOUs with UNEP/ROA and UNEP/DTIE for a total value of US \$ 40,000 for purposes of strengthening the Secretariat and ABREW project respectively. Out of the two MOUs a total of US \$26,975 was received and US \$ 7,806 was spent for the first sub-contract with UNEP/ROA. The remaining balance from the first sub-contact (US \$ 12,194), which was supposed to be paid as expertise fee for the service provided but waived by its members will be utilized by the Secretariat to develop programmes. As for the second sub-contact, it was reported that the funds have not been utilized because the project was yet to start in June.

The Secretariat reported challenges including, among others; inadequate capacity of the interim Secretariat in terms of human resources; and delays in establishing a substantive Secretariat. Among the recommendations given by the Secretariat on the way forward was to establish a substantive ARSCP Secretariat by recruiting respective personnel to develop substantive programmes and coordinate the day to day activities of the ARSCP.

The report further recommended the introduction of membership fees for purposes of strengthening members' commitment and sustainability of the ARSCP Secretariat. It was proposed to have membership fees of US \$ 50 (US dollar fifty only) and US \$ 500 (US dollar five hundred only) for individual and institutional members respectively.

3.3 Discussion

The discussion started by commending the EB for the achievements made during the two year period despite the constraints encountered. The idea of giving a blanket membership to all participants at the General Assembly was also well received and commended. The members further discussed other issues raised in the report including establishment of a substantive secretariat, membership fees and sustainability of the ARSCP. Thereafter the members agreed on the following issues:

- A substantive ARSCP Secretariat be established in Tanzania and the CPCT continue to serve as an Interim secretariat until the Substantive Secretariat is established; and
- Membership fees be introduced according to the following criteria: Individual members – a) US \$ 50; b) SCP promoting institutional members – US \$ 100; and c) Corporate members – US \$ 1,000

3.4 Election of the Executive Board

Election of the new Board was facilitated by Dr. Desta Mebratu of UNEP/ROA. At the outset, Dr. Mebratu thanked the outgoing Board for the work done during their two-year period. Before the election started, a motion was presented by several members to allow the outgoing Board to continue for another two-year term. The motion was unanimously approved by the

members of the General Assembly. However, the members of the General Assembly agreed to increase the number of the Board members from five to seven.

It was also agreed that the two additional members be elected while taking into account representation of the Franco-phone countries, gender and private sector. It was further agreed that election be conducted by raising hands to two of the nominated candidates. Thereafter, the following three members were nominated to contest for the two positions in the Executive Board.

- Ms. Ramatoulaye Dieng (Senegal)
- Ms. Rosie Chekenya (Zimbabwe)
- Dr. John Afrari Idan (Ghana)

Based on the outcome of the election, the General Assembly endorsed Ms. Ramatoulaye Dieng (Senegal) and Ms. Rosie Chekenya (Zimbabwe) as new elected members of the Board. Accordingly, the following were confirmed as members of the Executive Board for the period 2006 to 2008:

1. Dr. Patrick Mwesigye (Uganda) – President
2. Prof. Cleophas Migiro (Tanzania) – Secretary
3. Mr. Smail Al-Hilali (Morocco) – Treasurer
4. Mr. Philip Acquah (Ghana) –Member
5. Dr. Evans Kituyi (Kenya) - Member
6. Ms. Ramatoulaye Dieng (Senegal) - Member
7. Ms. Rosie Chekenya (Zimbabwe - Member

After the election, the facilitator welcomed the President to chair the remaining part of the session. In his first statement as President of the ARSCP for the period 2006 to 2008, the Chairman welcomed the new members to the EB and promised to work even harder since the Board is now balanced in terms of gender, language and private sector representation. Finally, the Chairman encouraged members to start paying their membership fees on the same day of the meeting, and in particular before leaving Addis Ababa. There being no further business to transact, the Chairman thanked the members for their valuable contributions and subsequently closed the meeting at 10:30 hrs.

4. Working Group session on the African 10 YFP

In line with the thematic focus of the Fourth African Roundtable on Sustainable Consumption and Production, significant time was given to sessions that deliberated on the further development and implementation of the African 10 Year Framework Programme (10YFP) on SCP. The deliberation on this topic started with a plenary session during which a matrix that could be used as a guideline to conduct the discussion and the group exercise was presented by Mr. Arab Hoballah, Head of UNEP's Production and Consumption Branch. Mr. Hoballah underlined the importance of building upon what has been identified as priority areas in the African 10 Year Framework Programme that was approved by AMCEN in March 2005 and making it more focused for action at the national and sub-regional level. The matrix presented by Mr. Hoballah consisted of

the key priority areas of the African 10-YFP on the vertical axis and key planning and operational parameters on the horizontal axis.

The plenary presentation on the matrix was followed by a half day group discussion that was conducted under the following four sub-regional groupings: Eastern Africa, Southern Africa, West and Central Africa, and Northern Africa. Participants deliberated on their respective group priorities and specific actions. On the final day of the Roundtable, a plenary session was held during which the outcome and conclusion from each of the regional working groups were presented. This session was facilitated by Mr. Desta Mebratu, Regional DTIE Officer, who facilitated the discussion during the concluding plenary session. The following are the final conclusions and outcome from the concluding plenary session:

- The exercise that was conducted on the basis of the matrix provided should continue to be undertaken both at the national and sub-regional level with the appropriate adaptation of the matrix to the specific context.
- SCP promoting institutions at the national local and national level should work on further developing and implementing the relevant key activities identified through the exercise at their respective levels.
- In terms of identifying the key priority activity areas for follow-up at the regional level, it has been agreed to focus on the following five priority areas:
 - Efficient water utilization and services
 - Labelling of African products to regional and international markets
 - Promotion of integrated solid waste management
 - Production and use of biofuels
 - Information and knowledge management for SCP
- In order to provide technical inputs for the further development and implementation of the follow-up activities in the above key areas, it was agreed five technical committees that will operate under the Secretariat of the ARSCP.

In conclusion, Mr. Mebratu informed the participants that the outcome from this session would be used as an input to the First Regional Steering Committee meeting that is scheduled to be held on 01 June 2006 and be used as a basis to determine the specific follow-up activities to be carried out by the partner institutions.

4. Closing session

The closing session of the Roundtable was chaired by Dr. Patrick Mwesigye, President of the ARSCP. He called upon Mr. Lelissa Daba, Director of the Ethiopian Cleaner Production Center, Mrs. Mayra Sanchez Osuna, Head of the Cleaner Production Unit at UNIDO, and Dr. John Idan from Biogas Ltd, to make a brief remark on behalf of the host institution, partner organizations and the private sector respectively. All of the speakers appreciated the quality of organization and the level of discussion that was held during the Roundtable and expressed their appreciation for all institutions and individuals who have contributed to the success of the Roundtable. They further called for further strengthening the spirit of cooperation witnessed during the Roundtable so that

the region could benefit from the global effort of promoting sustainable consumption and production.

On behalf of UNEP and its partner institutions, Mr Arab Hoballah from UNEP DTIE expressed his thanks to the Government of Ethiopia in General and the two hosting institutions, namely the Environmental Protection Authority and the Ethiopian Cleaner Production Center (ECPC) in particular for the wonderful hospitality and organizational support they provided for the successful completion of the ARSCP-4. He also expressed his deep appreciation for all of the participants who have made an active contribution to the different sessions of the Roundtable. He noted that Africa, through the development of its 10 Year Framework Programme, is setting a new pace in the Marrakech process and called upon all the participants and partner institutions to continue with the momentum and register more concrete results in the area of implementation.

The Fourth African Roundtable on Sustainable Consumption and Production was closed by the opening remark from Mr. Mulugeta Amha, Director General of the Ethiopian Science and Technology Agency, which is the host institution for the Ethiopian Cleaner production Center. In his closing remark, Mr. Amha expressed his appreciation for UNEP and its partner institution for choosing Ethiopia to host the ARSCP-4. He underlined the importance of early adoption of the concept and practice of sustainable consumption and production for countries like Ethiopia and reiterated Ethiopia's commitment to strengthen its effort based on what has been achieved so far through the activities carried out by the Ethiopian Cleaner Production Center.

Minutes of the First Meeting of the Regional Steering Committee of the African 10-Year Framework Programme on Sustainable Consumption and Production

Date: 1 June 2006

Venue: SDD Conference Room, ECA, Addis Ababa

In Attendance:	Professor Cleo Migiro	ARSCP
	Dr. Patrick Mwesigye	ARSCP
	Mr. Ousman Laye	UNECA
	Mr. Tequam Tesfamariam	UNIDO
	Mr. Lelissa Daba	UNIDO
	Dr. Ulf Jaeckel	German-Africa Taskforce
	Mr. Christian Loewe	German-Africa Taskforce
	Ms. Adriana Zacarias	UNEP
	Mr. Desta Mebratu	UNEP (Chair)
	Ms. Debbie Chappat	UNEP (Rapporteur)

Agenda of the meeting:

1. Approving the Terms of Reference (TOR) for the Regional Steering Committee.
2. Review of the outcome from the ARSCP-4 with particular focus on identified follow-ups.
3. Presentation of planned activities by the key partners.
4. Identification of the key follow-up activities to be undertaken by the Regional Steering Committee.
5. Any other business.

Agenda Item no. 1: Approval of the TOR

- The meeting discussed the draft TOR section by section and approved the annexed TOR to serve as a guide for the activities of the Regional Steering Committee on the African 10 Year Framework Programme.
- The Regional Steering Committee was agreed to be constituted with the membership of the representatives of AMCEN, ARSCP, the African Union, UNECA, UNIDO, UNEP and the Federal Ministry of Environment, Germany with a possibility of having additional members as and when it is necessary.
- The membership criteria for the RSC is agreed to be:
 - Involvement in the Marrakech Process.
 - Involvement in the follow up activities.
 - Interest in taking part in the Regional Steering Committee.
- It was agreed that the Regional Steering Committee will be chaired by AMCEN and vice-chaired by ARSCP with UNEP's Regional DTIE Office serving as the Interim Secretariat for the first two years.
- It was noted that the large part of the Secretariat operation expense is already covered by the German Ministry of Environment and UNEP through the secondment of a Junior Programme Office (JPO) who will be based at UNEP Regional DTIE Office in Nairobi.
- It was agreed that working sessions of the Regional Steering Committee should be held in conjunction with other main events so as to facilitate maximum participation and reduce costs.
- The importance of transferring the secretariat to regional institutions was underlined in the context of strengthening the regional ownership of the African 10-YFP process.
- The main task of the Regional Steering Committee is noted to be the facilitation of coordination of activities under the African 10 Year Framework Programme and mobilizing support for its implementation.

Agenda Item no. 2: Review of the Outcome from the ARSCP-4

The chair of the meeting summarized the final outcome of the Roundtable in terms of the Regional follow-up activities under the following two sections:

- Identified the following five priority areas as the key areas for regional follow-up on the further development and implementation of the African 10YFP:
 - Production of biofuels;
 - Efficient water utilization;
 - Labelling of African products;
 - Promotion of Integrated Solid Waste Management
 - Information and knowledge management for SCP.

- Proposed to establish five technical committees that would further develop the specific follow-ups under the five key areas. The secretariat of the ARSCP is given the responsibility to facilitate the establishment of the technical committees and provide the necessary support for their activities.

The following are some of the key points that emerged from the subsequent discussion held on the outcome of the Roundtable.

- While focussing on the key priority areas for the regional follow-up, the importance of continuing the matrix-based exercise that was started during the sub-regional group sessions was underlined and the ARSCP Secretariat was requested to work on it further.
- The benefit of exploring the possibilities of linking the sub-regional exercise with the existing regional economic communities and the potential contribution that the UNECA could make through its sub-regional offices was noted.
- The cost implications resulting from the establishment of the five technical committees was discussed and it will be better to internalize such costs within the financing of specific project activities to which the technical committees would be associated.

Agenda Item no.3: Planned follow-up activities

The discussion under this agenda started with a briefing on planned follow-up activities that were given by the representatives of the German Ministry of Environment and UNEP. The representative of the German Ministry of Environment appreciated the outcome of the ARSCP-4 which would be very useful in focussing the follow-up activities to be undertaken under the German Taskforce on Cooperation with Africa. He outlined the following as the key areas on which the Taskforce would propose to focus.

- During the Joint Marrakech Taskforce Meeting held on the side of CSD-14, the other Taskforces shown significant interest in collaborating with the Taskforce on Cooperation with Africa. In this context, the Taskforce on Cooperation with Africa could serve as a bridge between the Regional Steering Committee and the Marrakech Taskforce.
- In the context of the key priority areas identified by the ARSCP-4 and in light of the past experience in the field, the German Taskforce on Cooperation with Africa will specifically work on:
 - Labelling African Products;
 - Development of an African manual for developing national SCP strategies and programmes;

- Contribution to Information and knowledge management on SCP through the compilation and production and publication of best practices in areas such as solid waste management;
- The JPO that has been recruited as part of the contribution to the support to Africa will provide inputs to the further development and implementation of the follow-up activities besides serving as a link to the German Taskforce on Cooperation with Africa.

The representative of UNEP noted that the on-going project on 'Institutionalizing the African Roundtable on Sustainable Consumption and production' is to end in June 2006. Nevertheless, he informed the meeting that some additional funding has been obtained from the accumulated interest obtained from a Norwegian Trust Fund in order to continue the activities on further strengthening the ARSCP and promoting the implementation of the African 10 Year Framework Programme. He indicated that the follow-up under this component is suggested to focus under the following four major areas building upon what has been achieved over the last two years.

- Support for development of national and cities 10YFP. The proposal is to support two countries and two cities to develop their own 10YFP programme. This could tie up with the proposed manual to be produced with Germany's contribution.
- Development and implementation of pilot project in selected areas. This can fit with waste management experience from German partners.
- Capacity building and knowledge transfer – could be undertaken in labelling programme at national or regional level.
- Working towards the next roundtable with a possibility to organise the ARSCP-5 in South Africa as part of the Johannesburg+5 events in 2007.

It was noted that all of the proposed follow-ups are just in the preliminary proposal stage and need to be further reformulated and structured in the context of the outcome of the ARSCP-4 and the Regional Steering Committee meetings. The meeting discussed a number of issues related to the further development and implementation of the follow-up activities out of which the following were the major consensus points.

- As noted in the African 10YFP and underlined in the subsequent declarations by AMCEN, all of the follow-up activities to be undertaken under the 10YFP need to clearly establish and effectively communication the link between SCP and poverty reduction.
- The follow-up activities to be undertaken could significantly benefit from what is being undertaken under the different Marrakech Taskforces. In this regard, besides strengthening the linkage between the Regional Steering Committee and the Marrakech Taskforce, it is suggested to have a session on Marrakech taskforce during the next Roundtable.
- While the benefit of the co-chairmanship arrangement adopted by the Marrakech Taskforces is well recognized in terms of promoting North-South collaboration, there is a concern that the experience could be limited to the participating country unless a regional mechanism is established to facilitate experience sharing and influence regional decision making.
- Besides enhancing the links of the Taskforces with ARSCP, finding a way through which the participating countries in the Marrakech Taskforces could feed into the AMCEN process is suggested as one good way of enhancing the contribution of the Marrakech Taskforces to the African process.

- While the progress that have been made in the development of the African 10YFP is well recognized, it would be useful to produce a documentary that would present the reality including the concrete actions on the group with a support of a visual image. This is agreed to be considered as part of the follow-up activities.
- The need for developing countries to approach development agencies with projects that are related to SCP is an essential element of making progress on the implementation of the African 10YFP at national level.

Agenda Item No. 4: Identification of the Key Follow Ups

Based on the discussion that was held on the above three agendas, the following are identified as key follow-up activities to be undertaken by members of the Regional Steering Committee.

- Refine the proposed specific follow-up activities to be undertaken by UNEP and the German Taskforce on Cooperation with Africa and circulate the proposals to the Regional Steering Committee members for possible contribution and feedback. (*Responsible organisations: UNEP/ROA and German Federal Ministry of Environment*).
- To foster linkages with Marrakech Processes task forces and promote synergy in work programmes (*Responsible organisations: UNEP/DTIE & German Taskforce on Cooperation with Africa*).
- To establish technical committees, define their TORs and link them to the activities in the key areas highlighted in the outcomes of ~~(Responsible Organisations: ARSCP Secretariat)~~. (*Responsible Organisations: ARSCP Secretariat*).
- Solicit inputs on the further improvement of the matrix used during the sub-regional working group exercise and develop a mechanism of continuing the exercise of developing concrete activities/programmes at the sub-regional level. (*Responsible organisations: ARSCP in collaboration with UNECA*).

Members of the Regional Steering Committee are urged to indicate the specific areas where they would be able to contribute or collaborate in the further development and implementation of the African 10YFP.

5. Any Other Business

The only issue discussed under any other business was the dates and venue of the next meeting of the RSC. In line with the approved TOR of the Committee it was suggested to hold the next meeting of the RSC back-to-back with UNEP's Ninth High-level International Advisory Seminar that is tentatively scheduled to be held in November 2006 in Arusha, Tanzania. All institutions that were in attendance of the first RSC meeting confirmed their availability for the second meeting and it was agreed to have the Second RSC meeting back-to-back with SCP-9.

Having no other business, the meeting was adjourned at 12:00.

Terms of Reference of the Regional Steering Committee of the African 10-Year Framework Programme on Sustainable Consumption and Production

1. Background

The Johannesburg Plan of Implementation (2002), states that "Fundamental changes in the way societies produce and consume are indispensable for achieving global sustainable development". It calls for the development of a 10-Year Framework of Programmes on Sustainable Consumption

and Production. UNEP, together with UN DESA, has been very active in promoting and supporting the development of regional and national strategies on sustainable consumption and production (SCP) and coordinating the international cooperation of this so called Marrakech Process. Several international and regional meetings have been held since now, allowing identifying priorities and needs for SCP.

The African region has been active in this endeavour. The region has developed its own 10 Year Framework of Programmes on Sustainable Consumption and Production which was facilitated by UNEP and UN-DESA in close consultation with the Secretariats of the African Ministerial Conference on Environment (AMCEN) and the Secretariat of the African Roundtable on Sustainable Consumption and Production (ARSCP) which has been established and supported by UNEP. The process was financially supported by the Federal Ministry of Environment, Germany and the Ministry of Environment of the Royal Norwegian Government which has been providing financial support to the project on the 'Institutionalization of the African Roundtable on Sustainable Consumption and Production'. A regional network that has been created through the implementation of this project has provided the technical and institutional basis for the development of the Regional Framework of Programmes.

The development of the African 10 Year Framework Programme (10YFP) was conducted through a series of regional experts meeting that identified the priority thematic areas for the region and the specific priority activities that need to be undertaken under each thematic area. The draft 10YFP prepared through the experts meetings was later discussed and approved by the African Ministerial Conference on Environment in March 2005. AMCEN, through its Dakar declaration, approved the African 10 YFP and 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 San José, Costa Rica, September 2005).

This has provided the basis for the establishment of the Regional Steering Committee for the African 10 Year Framework Programme on Sustainable Consumption and Production and this Terms of Reference has been adopted by the Founding meeting of the Committee, which was held on 01 June 2006 in Addis Ababa, Ethiopia.

2. Objectives

The overall objective of the Regional Steering Committee for the African 10 Year Framework Programme on Sustainable Consumption and Production is to facilitate the required coordination of efforts and support on the further development and implementation of the African 10 YFP. The specific objectives are to:

- review progresses made in the further development and implementation of the 10-Year framework and facilitate a consensus on key follow-up activities;
- promote cooperation and build synergies between activities to be carried out by different institutions and organizations;

- mobilize support to the further development and implementation of the African 10 Year Framework Programme at the sub-regional and national level
- facilitate cooperation and involvement of the African Countries in the activities undertaken by the Taskforce on Cooperation with Africa and the other Marrakech Task Forces.

3. Members of Regional Steering Committee

The Regional Steering Committee for the African 10 Year Framework Programme will have members representing:

1. African Ministerial Conference on Environment (AMCEN)
2. African Roundtable on Sustainable Consumption and Production (ARSCP)
3. The African Union (AU)
4. United Nations Economic Commission for Africa (UNECA)
5. United Nations Industrial Development Organization (UNIDO)
6. United Nations Environment Programme (UNEP)
7. Federal Ministry of Environment, Germany
8. Any other international and bilateral development partners

4. Modalities of operation

The following are agreed to be the modalities of operation for the Regional Steering Committee on the African 10 Year Framework Programme.

4.1 Chairmanship: The Regional Steering Committee will be chaired by the representative of AMCEN and vice chaired by ARSCP.

4.2 Working sessions: In order to make it cost-effective, the meetings of the Regional Steering Committee will be convened in conjunction with events to be organized either under the Marrakech process on the 10YFP or any other related regional events. In between such meetings, the Regional Steering Committee will conduct its task through teleconference and email communications.

4.3 Secretariat: the Regional DTIE Office at UNEP's Regional Office for Africa will serve as the Secretariat of the Regional Steering Committee for the first two years with a possibility of transferring this responsibility to a regional institution(s) during the subsequent years.

4.4 Financing: The additional cost associated with the activities of the Regional Steering Committee will be covered through a resource that will be jointly mobilized by members of the Regional Steering Committee.

5. The guiding principles

While effort shall be made to adhere to the general principles of partnership programmes, the following principles will be promoted as the particular guiding principles for the partnership to be promoted under the Regional Steering Committee on the implementation of the African 10YFP.

- **Regional contextualization:** while the promotion of SCP is guided by general principles that are commonly applicable for all societies, its effective application will be very much

dependent on interpreting these general principles within the local context. In this context the further development and implementation of the African 10YFP at the national and sub-regional level will be guided by relating the priorities with the specific contexts at each level.

- **Promoting synergies:** The African 10YFP underlined the importance of relating the principle of sustainable consumption and production with the challenge of meeting basic needs. In this regard, all effort will be made to promote the maximum possible synergy between the development and implementation of the African 10YFP with the activities under the Marrakech Taskforces, the on-going effort to meet the Millennium Development Goals (MDGs) and national Poverty Reduction Strategies and Sustainable Development Strategies.
- **Regional ownership:** The effectiveness and sustainability of the impacts to be achieved through the implementation of the African 10YFP would be largely determined by the level of ownership to be demonstrated at the regional level. To this effect, maximum effort will be made to ensure that regional institutions and actors play the leading role in the development and implementation of the African 10YFP.
- **Networking:** flexible and organically evolving networks are recognized as the most effective forms of organization for the promotion of sustainable development. In this regard, the establishment of institutional and knowledge networks will be promoted as the principal form of institutional approach for the development and implementation of the African 10YFP.
- **South-South cooperation:** The Bali Strategic Plan on Technology Support and Capacity Building that was adopted by the 23rd Governing Council of UNEP underlined the importance of promoting South-South Cooperation while recognizing the contribution of North-South cooperation. In this regard, due emphasis will be given to learn from experiences in other developing countries and regions and foster cooperation.

Annex one: Speeches during the High-level Launch Session

Keynote address by Mr. Girma Wolde Ghiorgis, President of the Federal Democratic Republic of Ethiopia

Distinguished Invited Guests to the High-level Launch Session of the African 10 Year Framework Programme on Sustainable Consumption and Production!

Distinguished Participants of the Fourth African Roundtable on Sustainable Consumption and Production!

Ladies and Gentlemen!

Good Morning to You All!

At the outset, I would like to express how delighted I am to deliver this keynote remark on a subject that has been dear to my heart throughout my life. Environment is the provider of all basic resources that are required for the satisfaction of our basic needs and for our survival. Our planet Earth has been blessed with an environment that is self-renewing and self-regulating. Unfortunately, failure to use wisely the resources endowed to us by nature is leading to major challenges that are posing a threat to the smooth continuation of civilization and the perpetuity of life on earth. Increasingly, we are witnessing natural disasters that are closely associated with weather variability and climatic changes, soil erosion and land degradation, mismanagement of the aquatic ecosystem, pollution from hazardous chemicals and wastes, loss of biodiversity and biological resources.

Coming to the specific case of Africa, recent trends indicate that increasing number of African countries are being exposed to growing numbers of environmental disasters. With increasing environmental deterioration in the region, poverty has continued to worsen in Africa, making its people more vulnerable to environmental changes. Low-income earning Africans, especially the underprivileged and rural local communities are the most affected because they are directly dependent on the health and stability of the natural environment. The urban poor are most affected by the negative impacts of urbanization, such as inadequate municipal waste management systems that result in serious urban pollution and loss of health.

Africa is a continent of great natural riches that is also faced with enormous developmental challenges. The development and environmental challenge that Africa is facing today are heavily interdependent on one another making it impossible to address one without addressing the other. Africa's effort to achieve the Millennium Development Goals can only be achieved and sustained through a comprehensive and integrated approach that promotes the sustainable utilization and conservation of the Region's resource. It is only through such an approach that we can break out of the prevailing vicious cycle of poverty-underdevelopment and environmental degradation.

Ethiopia has made considerable efforts to address environmental problems and alleviate their impacts on the society. The right to a clean and healthy environment is enshrined in its Constitution. The Environmental Policy of Ethiopia and the Federal and National Conservation Strategies are being implemented. A number of guidelines covering areas such as Environmental Impact Assessment, Pollution Control and environmental quality have been developed to specify the implementation of the environmental policy and law of the country and institutions at Federal and Regional levels have been established to oversee the implementation. The establishment of the Ethiopian Cleaner production Center could be cited as one of the cases in this regard.

Ladies and Gentlemen

The purpose of our session today is to officially launch the African 10 Year Framework Programme on Sustainable Consumption and Production. I believe that this framework Programme which has been developed through a consultative process and approved by the African Ministerial Conference on Environment will make significant contribution to the on-going effort of promoting

sustainable development in the region. I also believe that the Fourth African Roundtable on Sustainable Consumption and production which will be deliberating for three days would give us a useful input to the follow-up activities to be carried out at the sub-regional and national levels.

At this juncture, I wish to commend The United Nations Environment Programme (UNEP) and all its international partners for facilitating the development of this framework programme. I would also like to recognize with due appreciation the efforts of the Secretariats of the African Ministerial Conference on Environment (AMCEN) and the Secretariat of the African Roundtable on Sustainable Consumption and Production (ARSCP) for the valuable regional leadership and support they provided.

I believe African countries need to seize the emerging opportunities in the area of sustainable production and consumption and promote the development of their economies on a more sustainable basis. Such an approach will allow us to achieve a sustained progress on poverty reduction while at the same time it will allow us to hand over a healthy and stable environment to the future generations. In this regard, I call upon all African countries to actively participate in the further development and implementation of the 10 year framework programme at national and sub-regional levels.

The effort to be made by Africans is the most decisive factors for Africa's progress towards sustainable development. Nonetheless, International Development Partners play a critical role in enhancing Africa's capacity on developing and implementing sustainable consumption and production programmes. In this context, I would like to appreciate the initiative taken by the Federal Government of Germany to establish a 'Task Force on Cooperation with Africa' and I call upon all development partners to be an active participant in this Task Force by providing their support to the follow-up activities under the framework programme.

Today, Ethiopia is taking the opportunity of hosting the Fourth African Roundtable on Sustainable Consumption and Production under the theme of '*Implementation of the African 10 Year Framework Programme on Sustainable Consumption and Production*' and its official launching to reaffirm its commitment to the further development and implementation of the African 10 Year Framework Programmes as it will re-enforce our ongoing efforts to meet our Sustainable Development & Poverty Reduction Programme and the objectives of the MDGs.

Finally, I wish you all success in your deliberations and I declare the Fourth African Roundtable on Sustainable Consumption and Production Open!!

I THANK YOU ALL!!

Remarks from the United Nations Environment Programme (UNEP)
Mr. Arab Hoballah – Head P&C - UNEP DTIE

Your Excellency Mr. Girma Wolde Ghiorgis, President of the Federal Democratic Republic of Ethiopia
Excellencies Ministers, Ambassadors and Permanent Representatives
Participants to the Fourth African Roundtable on Sustainable Consumption and Production

Ladies and Gentlemen

On behalf of the United Nations Environment Programme and its partner organizations, I am very pleased to welcome you all to this High-level launch session of the African 10 Year Framework Programme on Sustainable Consumption and Production, and to the opening of the Fourth African Roundtable on Sustainable Consumption and Production. We thank you very much for joining us in this important occasion. I would particularly like to express our gratitude to His Excellency President Girma Wolde Ghiorgis for gracing this occasion by being with us and hosting this event.

Your Excellency Mr. President
Excellencies, Ladies and Gentlemen,

It has been almost four years since the World Leaders met at the World Summit on Sustainable Development (WSSD) and underlined that fundamental changes in the way societies produce and consume are indispensable for achieving global sustainable development. To that end, they called for the development of a 10Year Framework Programme on Sustainable Consumption and Production in support to regional and national initiatives.

UNEP, together with UN DESA, has been very active in promoting and supporting the development of regional and national strategies on sustainable consumption and production and in coordinating the international cooperation of this process known as Marrakech Process. Several international and regional meetings have been held since then, resulting in identifying priorities and needs for SCP at various levels. Among other important issues, this programme includes National Cleaner Production Centres for the establishment of which UNEP and UNIDO generally cooperate and are looking forward to further strengthen their cooperation for the benefits of the Countries.

The African region has been particularly active in promoting SCP. Today we are celebrating the clear evidence of the commitment and successful work of the region; it is the first region in launching its regional 10 Year Framework Programme on Sustainable Consumption and Production. We are glad to see that it is supported by AMCEN, the African Union, UNIDO, the Secretariat of the African Roundtable on Sustainable Consumption and Production (ARSCP) and the governments of Germany and Norway.

Ladies and gentleman

When considering the development issues and priorities in the African context, we all recognize that Africa needs to develop its economy in order to reduce poverty and fulfil the basic needs and aspirations of its people. As we all know this is the core tenet of the New Partnership for Africa's Development (NEPAD) at the regional level, as well as national poverty reduction and sustainable development strategies. In September 2000, 146 heads of states pledged in the United Nations Millennium Declaration to spare no effort to free all humanity from the threat of living on a planet irredeemably spoiled by human activities and whose resources would no longer be sufficient to meet their needs.

When we talk about SCP on a global level and in particular in Africa, we are well aware that the overwhelming majority of the people cannot even be called "consumers". Poor people struggle for survival on a day-to-day basis. The poor have no access to clean drinking water, appropriate nutrition, efficient health services, and they have no access to affordable energy sources. Therefore,

it would be important to promote an integrated development allowing developing countries to "leapfrog" to sustainable consumption and production patterns. This implies that from the beginning decision-makers should look for and invest in sustainable solutions and avoid the mistakes that developed countries have made in the past.

According to the Millennium Ecosystem Assessment Report that was produced in 2005 through an extensive global partnership, any progress achieved in addressing the goals of poverty and hunger eradication, improved health, and environmental protection is unlikely to be sustained if most of the ecosystem services on which humanity relies continue to be degraded. The over-riding conclusion of this assessment report is that it lies within the power of human societies to ease the strains we are putting on the nature services of the planet, while continuing to use them to bring better living standards to all. Achieving this, however, will require radical changes in the way nature is treated at every level of decision-making and new ways of cooperation between government, business and civil society.

The African 10 Year Framework on Sustainable Consumption and Production reiterates the regional priorities for promoting development by underlining the need to develop the sustainable consumption and production agenda of the region in such a way that it would be responsive to the existing challenges of meeting basic needs in the region. It also underlines that by adopting alternative development models that are based on the principles of sustainable consumption and production, African Countries could seize the opportunity to leap-frog to a more sustainable society that would fulfil the basic needs and aspirations of its people on a more sustainable basis.

Changing consumption and production patterns is a challenging and essential task facing African governments and other stakeholders. First and foremost, coping successfully with this challenge would require increased awareness raising about the risks and the alternative options, as well as drastic policy reforms and serious in-depth culture of change.

UNEP is keen in continuing its active role in the development and implementation of the Marrakech Process, in close cooperation with all concerned partners, global such as UNDESA, UNDP and UNIDO, and regional such as UNECA, AU, AMCEN and the ARSCP. Considering the consultation phase completed, we look forward to better focus on the key priorities with practical projects so as to reach concrete and realistic outcomes that we can report on at the CSD in 2012. UNEP focus will be more on supporting the development and implementation of concrete demonstration projects with the most active countries in the regions, with necessary and solid support from donors, after which they can be replicated by others. Among other issues, we will be focusing on:

- i. Showing the added value of new models of Industrial development, in particular the establishment of closed loops economies, such as the programme on *Circular Economy* that we have *started in China*. We will work on the global level with key industrial sectors, such as construction, tourism, and food.
- ii. Waste management - focusing on improving collection, disposal and recycling schemes, including energy recovery. This will require increasing the role of the private sector and aiming at poverty eradication and creation of jobs.

- iii. As a contribution to the Bali Strategic Plan for Technology Support and Capacity-building: SCP capacity building and training on priority tools to address challenges that industry face - in particular SME's. For this we can build on the existing NCPC network. Topics include Life Cycle Management, Design of Products and Services. And for governments we focus on procurement and policy implementation.
- iv. Sustainable trade and use of resources: product lifecycles are increasingly international, which calls for integrated policies to optimise the use of resources and materials over the full life cycle accompanied by adequate support for, in particular, SME's in developing countries.
- v. One of our key priorities is also sustainable energy and mobility, focusing on more efficient energy use and improved promotion and use of renewable energy, as well as on improving the infrastructure, in particular for industrial and urban development and to help achieve development goals.
- vi. Last but not least, we attach great importance to Communicating sustainability, as it is essential for awareness raising towards changing the unsustainable patterns of consumption and production.

As a contribution to this practical process, several Task Forces have been established and we expect a very active role from the African Countries so as to ensure that their stakes and challenges are given due consideration.

The existing regional 10-year framework programme is a framework programme that needs to be further developed and implemented at regional, sub-regional and national levels. It is with this objective that the Fourth African Roundtable is organized under the theme of 'further development and implementation of the African 10YFP'. I sincerely hope that the outcome from this roundtable will greatly contribute to operationalize this important Regional framework programme.

Finally, Your Excellency Mr. President, ladies and gentlemen, allow me to express our deep appreciation to the Royal Government of Norway for supporting the institutionalization of the African Roundtable and to the Federal Government of Germany for their continued support for the development of the African 10 Year Framework Programme on Sustainable Consumption and Production. I would also like to thank your government, Mr President, and in particular the Ethiopian Environmental Protection Authority and the Ethiopian Cleaner Production Centre for hosting the Fourth African Roundtable, for the excellent organisation and the warm welcome extended to all.

Thank you for your attention.

**REMARKS BY DR. BABAGANA AHMADU
DIRECTOR, RURAL ECONOMY AND AGRICULTURE
AFRICAN UNION COMMISSION**

Your Excellency, Mr. Girma Wolde Giorgis, President Federal Democratic Republic of Ethiopia

**Your Excellencies, Ambassadors and Members of the Diplomatic Corp,
Distinguished Ladies and Gentlemen,**

I have the singular honour and pleasure to convey the warm greetings from his Excellency A.O. Konare, The Chairperson of the African Union Commission, who unfortunately could not be here with us today due to prior commitments. H.E. President A.O. Konare has sent me to convey to you all his good will and support on this important occasion. The African Union commission is fully committed in working towards the achievement of the objectives of this important initiative on sustainable consumption and production. The Commission considers the issue of sustainable consumption and production as an important emerging issue that the AU Member States should take seriously and in this respect, we are prepared to go into effective partnership with UNEP and other relevant stakeholders in the implementation of the Johannesburg plan of action on sustainable consumption and production.

As one of Africa's political organs, the AUC is offering to mobilize the political will of our leaders to support the speedy implementation of the 10 year framework programme on sustainable consumption and production. The AUC will engage all its relevant organs in advocacy and sensitization to create the necessary awareness in the AU Member States on this initiative. I would like to assure that the AUC would work with you in ensuring that the continental efforts on this initiative are well coordinated and harmonized at all levels.

I would like to end this remark by thanking the organizers of this meeting for taking the AU on board in the implementation of this important initiative.

I wish you successful launching and fruitful deliberations.

Thank you your kind attention.

Remarks by the Ambassador of the Federal Republic of Germany
His Excellency, Dr. Claas-Dieter Knoop,

Your Excellency President Girma Woldegiorgis of the Federal Democratic Republic of Ethiopia,
Excellencies,

distinguished experts from Africa and all over world, who have come to Addis Ababa, ladies and gentleman!

As Ambassador of the Federal Republic of Germany, I have the honour to convey the sincerest greetings of the German Federal Minister for the Environment, Mr. Sigmar Gabriel, who regrets very much being prevented from personally attending this High-Level Launching Event.

We are today witnesses of an important step of Africa into a better future. A future which it well deserves, and which it wants to work for. It is a future not only of economic growth to fight poverty, but also of environmentally conscious progress, characterized by cleaner production and sustainable consumption. The 4th African Roundtable, starting today at noon, shall provide input to the further development and implementation of the African 10 Year Framework Programme, which we have the honour to launch.

To develop such a framework, was one of the decisions at the World Summit on Sustainable Development in Johannesburg 2002 Johannesburg Summit, which adopted new goals and implementation programmes for environmental protection and poverty eradication throughout the world. Developed countries agreed to become lead partners in the work in this field. The international Marrakech Process on Sustainable Consumption and Production was initiated in June 2003 in Marrakech with an intense regional participation.

The German Government has supported the African Regional Process on S.C.P. from the very beginning, when this decision was taken. We have supported the two preceding African Roundtables on SCP in their work and their funding, which led to the decision to establish a task force for the cooperation with Africa in the Marrakech Process. Much coordination and preparatory work for the task force has been achieved, and it will start its work with a first meeting after this African Roundtable on June 1st.

My Government will do its best to make the work of this task force successful. To this avail, the Ministry of the Environment has recruited a resource person for the UNEP Regional Office, who will start her work in Nairobi this October, putting her extensive experience in international project management to use in the coordination of activities.

I hope to see first concrete results already for the 3rd international meeting in 2007. Many exciting ideas are already on the table, like the development of an African ecolabel, or the promotion of environmentally-conscious public procurement in African countries.

Put the sun to work to heat your water, let the wind drive your power stations, keep your air clean by replacing polluting old vehicles! — There are so many mistakes that can and must be avoided; “leapfrogging” these environmental traps is the key word and aim.

But speaking of the future, I must not forget to thank for work that has already been done, namely the organizers of this session and the conference: The African Union, the United Nations Economic Commission for Africa, the United Nations Environmental Programme, United Nations

Industrial Development Organization, and the Secretariat of the African Roundtable, and in particular also the Ethiopian Cleaner Production Centre and the Environmental Protection Agency as our host country's competent institutions.

Our government is proud to be partner of Africa in this process, and we are on board together with you to accomplish the tasks which lie ahead of us!

Thank you for your attention!

Allocution de S.E. M. Abdeljebbar Brahime Ambassadeur du Royaume du Maroc
en Ethiopie
Monsieur le Président, Président de la République Démocratique de l'Ethiopie Ato Girma Wolde
Giorgis
Excellences,
Mesdames et Messieurs.

Permettez-moi d'abord d'adresser, au nom du Royaume du Maroc, nos vifs remerciements à Son Excellence Ato Girma Wolde Giorgis, Président de la République Démocratique de l'Éthiopie, qui a bien voulu honorer par sa présence l'ouverture de ce forum ainsi que pour l'intérêt particulier qu'il accorde aux questions liées à la protection de l'environnement. Le soutien qu'il apporte à nos travaux et son implication dans les efforts de sensibilisation et de promotion d'une culture environnementale africaine consciente des défis à relever, ne pouvaient que nous motiver davantage pour collaborer à tous les niveaux afin d'assurer un environnement sain, favorisant le développement de notre continent ; pour notre intérêt immédiat et pour celui de nos enfants et des générations à venir.

Je voudrais également saisir cette occasion pour remercier les autorités éthiopiennes d'accueillir cette Table Ronde ainsi que les partenaires de développement de l'Afrique, en particulier les Gouvernements Allemand et Norvégien, de leur appui et assistance que nous considérons précieux pour la réalisation de ce Plan décennal que nous nous apprêtons à lancer aujourd'hui.

Monsieur le Président, Excellences,

Mesdames et Messieurs.

Le lancement, aujourd'hui, du Plan cadre décennal africain pour des modes de consommation et de production durables, constitue le couronnement des efforts déployés depuis des années par l'ensemble des parties prenantes en particulier : les gouvernements ; le PNUE ; l'ONUDI ; les experts internationaux ainsi que des entreprises privées. Nous les remercions tous de nous permettre de disposer d'une feuille de route bien élaborée pour s'attaquer à des problèmes d'environnement quotidiens urgents en mettant l'accent sur quatre axes prioritaires à savoir : l'énergie ; l'eau et assainissement ; l'habitat et le développement urbain et enfin la promotion d'industries basées sur les ressources renouvelables.

Tout le monde s'accorde sur le principe selon lequel la réalisation d'un développement durable et un environnement salubre est une responsabilité collective qui doit passer par l'adoption de pratiques améliorées de production et de consommation saines et durables. Ceci suppose l'application d'une stratégie préventive intégrée à tous les procédés allant de la production jusqu'à la consommation. L'éco-efficacité ; la production verte et la prévention de la pollution, sont des options à privilégier. Ce sont là quelques traits saillants du Plan d'Action objet de notre rencontre d'aujourd'hui.

M. le Président, Excellences,

Mesdames et Messieurs.

Renforcer les capacités humaines en matière d'éducation et de formation ; encourager l'intégration de stratégies préventives à tous les niveaux de l'entreprise ; soutenir le développement de produits et services écologiquement efficaces et partager les expériences acquises aux niveaux national ; régional et international, sont autant de moyens que nous avons à notre disposition et que nous devons promouvoir pour assurer la réussite de notre parcours vers l'intégration des concepts

et principes de la production propre dans notre culture de consommation. Nous reconnaissons, bien sûr, qu'il s'agit là d'un travail de longue haleine nécessitant des efforts intensifs de la part des gouvernements ; des acteurs économiques et de toutes les composantes de la société. Toutefois nous ne pouvons faire l'économie de cet effort car notre santé et la qualité de notre vie de tous les jours en dépend. C'est pourquoi davantage d'énergies et de ressources doivent être mobilisées pour concrétiser ces objectifs. A cet égard l'appui technique et financier de nos partenaires demeure crucial.

De même, la coopération entre Etats et le renforcement du processus d'intégration régionale en Afrique constituent, à ne pas douter, des moyens privilégiés pour trouver des solutions et des mécanismes appropriés pour la mise en œuvre de ce Plan d'Action national, à côté du rôle que doivent jouer les médias et les établissements d'enseignements dans le domaine de sensibilisation à la production et la consommation durables, la création des centres nationaux de production propre au niveau de tous les pays africains facilitera indéniablement l'intégration de notre Continent dans l'économie mondialisée et sa contribution à la culture universelle de préservation de l'environnement.

M. le Président, Excellences,

Mesdames et Messieurs.

Permettez--moi de vous faire-part brièvement de l'expérience de mon pays en matière de production propre et de consommation durables. Un centre national de référence baptisé : le Centre Marocain de Production Propre (CMMP), a été créé en mai 2000. Ce Centre a pour mission principale d'assister techniquement les entreprises marocaines pour l'adoption des technologies plus propres et des systèmes de gestion environnementales leurs permettant d'améliorer, de la sorte, la performance économique en terme d'efficacité ; de productivité ; de compétitivité et de performance environnementale. Sa création est le fruit d'un partenariat établi entre le secteur public et la Confédération Générales des Entreprises Marocaines (CGEM). Je saisis cette occasion pour annoncer que le Maroc demeure disposé à partager son savoir-faire et échanger ses expériences acquises en la matière avec les pays africains qui ont déjà institué des centres similaires sur le Continent et qui ont développés des techniques et des procédés appréciables dignes d'intérêt et de vulgarisation. Il est également de notre devoir de contribuer, à travers des partenariats multiformes, à aider les autres pays africains à installer et rendre opérationnel leur propres centres de production propres afin que nos efforts se conjuguent et les bonnes pratiques en matière de préservation de l'environnement embrassent l'ensemble de notre Continent.

Je souhaite aux travaux de cette Table Ronde plein succès et à l'Afrique paix, progrès et prospérité.

Je vous remercie de votre attention.

Remarks from the United Nations Economic Commission for Africa (UNECA)

Mr. Josué Dioné

Director, Sustainable Development Division (SDD), UNECA

Your Excellency, Mr. Girma Wolde Ghiorgis, President of the Federal Democratic Republic of Ethiopia,

Distinguished Representative of the African Union Commission, Dr. Babagana,

**Excellencies, members of the Diplomatic Corps,
Dear colleagues of UNEP, UNIDO and other UN agencies,
Distinguished Experts,**

Ladies and Gentlemen,

On behalf of the Executive Secretary of ECA, Mr. Abdoulie Janneh, it is my pleasure to welcome you to ECA, on the occasion of the high-level launch of the African 10-Year Framework Programme on Sustainable Consumption and Production, organized in conjunction with the opening of the Fourth African Roundtable on Sustainable Consumption and Production (ARSCP-4). I wish to thank UNEP for associating ECA with this very important initiative, and to pledge ECA's commitment to work in partnership with UNEP and the African Union Commission to promote sustainable consumption and production in Africa.

**Excellencies,
Ladies and Gentlemen:**

Africa has made remarkable progress in developing a 10-year framework programme to accelerate the shift towards sustainable consumption and production, as called for by the Johannesburg Plan of Implementation. I wish to recognize the valuable contributions of UNEP, UN-DESA, the African Roundtable on Sustainable Consumption and Production and our development partners in making this programme possible. I also salute the African Ministerial Conference on the Environment (AMCEN) for its leadership, and for providing policy guidance for the development of the African 10-Year Framework Programme.

By most assessments of progress towards the MDGs, we know that Africa is far from meeting the targets on basic needs such as food, health, shelter, water and sanitation. This is against the realities of population growth, rapid urbanization and increasing environmental and natural resource degradation. The challenge for Africa is to meet these basic needs, extricate itself from poverty and properly mainstream itself in the global economy, without undermining the very resources and environment on which it depends for survival. This is why I am delighted that the framework programme has focused on energy; water and sanitation; habitat and sustainable urban development; and industrial development. Africa can accelerate its attainment of the MDGs by scaling up efforts in all the areas of the Framework Programme.

**Excellencies,
Ladies and Gentlemen,**

ECA has been paying closer attention to these thematic areas. On water, we collaborated with the African Union and the African Development Bank in developing the Africa Water Vision 2025, including a broad plan on water and sanitation, the demand side of Integrated Water Resources Management (IWRM), which must be considered as part of a process of developing water, land and related resources to maximize economic and social welfare in an equitable manner

without compromising the sustainability of vital ecosystems. The African Water Vision 2025 thus embraces all the critical areas highlighted in the 10-year framework programme, including the management of best practices knowledge to which ECA has contributed through the institution of the African Water Information Clearing House, and the African Water Development Report as a biennial mechanism for tracking progress towards achieving the vision targets. We also held a series of sub regional workshops to raise awareness and promote the implementation of IWRM.

Our work in minerals clusters development has also benefited Africa. As you know, many African economies depend on the exploitation of their natural resources endowments. Changing production and consumption patterns in the continent requires that linkages between the natural resources sector and local economies are maximized, local beneficiation of raw materials is promoted, value addition is increased, and clusters of competitive industries anchored on the natural resources endowments are fomented. In addition to value chains for agricultural products and by-products, these clusters should cover all natural resources that the continent possesses. In recognition of this paradigm and in response to calls made at the second meeting of the ECA Committee on Natural Resources and Science and Technology (CNRST) in Addis Ababa in 2001, we identified potential areas for natural resources cluster development at national and sub-regional levels as well as the policy and strategic options to foster their development.

On energy, ECA has been supporting the development of sustainable energy production through regional electricity trade in the context of the regional power pooling, tapping into the vast and mostly unexploited hydropower potential of the continent. We have further expanded the emphasis of our work to promoting more equitable access to energy for all, especially for rural Africans.

With regard to habitat and sustainable urban development, ECA prepared, in collaboration with UN-Habitat, a report on human settlement, which reviewed progress in the implementation of the Habitat Agenda, with particular attention to adequate shelter for all, land-use planning and management, improving physical infrastructure, human settlement planning in disaster-prone areas and means of implementation. This report showed that in most African countries, actual achievement in the provision of shelter for all are not commensurate with the commitments made in Istanbul and Johannesburg. The review revealed that African countries are strong on policies, strategies and programmes that guarantee the right to adequate housing and secured tenure, but very weak in implementation.

In line with the 10-year framework programme, therefore, we must try and assist African countries to improve their ability to manage rapid urbanization rates; transform African cities into assets for sustainable development; mobilize domestic resources for human settlement development; empower local government and civil society in managing human settlements and encourage gender mainstreaming in human settlement matters.

As a follow-up to the World Summit on Sustainable Development, ECA also organizes Regional Implementation Meetings (RIMs) in collaboration with the Secretariat of the Commission on Sustainable Development (CSD), sister UN Agencies and other Africa regional organizations. These meetings serve as the African regional forum for the review of the clusters of issues to be considered at the global level by the CSD and for preparing reports, statements and recommendations which serve as the region's input to that effect.

*Excellencies,
Distinguished Ladies and Gentlemen,*

The theme of this fourth African Roundtable on Sustainable Consumption and Production is “Further development and implementation of the African 10-Year Framework Programme on sustainable consumption and production”. We have a very important task in front of us. In this regard, I would urge that we take the development needs and capacities of African countries into account and consider, among others, the following issues:

- How sustainable consumption and production can contribute to Africa’s quest for the MDGs and attaining sustainable development;
- How to effectively incorporate sustainable consumption and production considerations into growth, poverty reduction and sustainable development strategies;
- What specific actions need to be considered in the implementation of a sustainable consumption and production plan, and what financing mechanisms should be put in place for the effective implementation of such a plan;
- How to achieve effective partnership arrangements between governments, industry and civil society for the promotion of sustainable consumption and production;
- What types of mechanisms should be put in place to foster development cooperation for capacity building, technology transfer, technical and financial assistance to enable Africa “leapfrog” into more sustainable consumption and production patterns; and
- How to maximize opportunities presented by the Taskforce on Cooperation with Africa, that was launched during the Second International Meeting on the Marrakech Process, and led by Germany.

In addressing these issues, we are fortunate to have at the Roundtable participants with wide-ranging expertise and experience. I am confident that the outcome of their three-day deliberations will result in a greatly consolidated African 10-Year Framework Programme for “leapfrogging” into more sustainable consumption and production patterns in Africa.

To conclude, I want to thank all those who have worked so hard to ensure the successful launching of the African 10-Year Framework Programme, and the convening of ARSCP-4 to work on the further development and implementation of the Programme.

I thank you for your kind attention.

Remarks from the United Nations Industrial Development Organization (UNIDO)
Mrs. Mayra Sanchez Osuna, Head, Cleaner Production Programme

His Excellency Mr. GIRMA WOLDEGHIORGIS, President of the Federal Democratic Republic of Ethiopia,
Excellencies,
Directors the NCPCs,
Ladies and gentlemen,
Dear colleagues and friends.

It is my honour to represent UNIDO in this High Level Launch Session to celebrate the 10 YEARS FRAMEWORK PROGRAMME ON SUSTAINABLE CONSUMPTION AND PRODUCTION FOR AFRICA. Allow me on behalf of the UNIDO Director General and the UNIDO Cleaner Production Team to congratulate you for the success achieved by the programme during these ten years and for the organization of this event.

I would also like to express my gratitude for the hospitality offered to us and confirm once more our commitment for continuous cooperation with local and regional authorities, institutions and the National Cleaner Production Centres in the region oriented towards the achievement of sustainable industrial development in this continent.

Analysing past years achievements, shortcoming and experiences, we old timers working in the programme could remember than twelve years ago UNIDO and UNEP introduced the CP approach and methodologies in our countries. The mechanism chosen at that time to assist the member states to improve the competitiveness of the industrial sector was the creation of specialized institutions: the National Cleaner Production Centres. This was in general terms good approach. During these years UNIDO has cooperated with 40 countries around the world to establish their Cleaner Production Centres and to implement sector specific cleaner production projects. The CP centres in Egypt, Kenya, Morocco, Mozambique, Tanzania, Tunisia, Uganda, South Africa, Zimbabwe and that in our host country -ETHIOPIA- have cooperated with UNIDO in introducing the CP approach in local conditions, through targeted capacity building programmes, assistance services to enterprises, establishment of public-private partnership in the respective countries and assisting over the years many enterprises to reduce their inefficiencies, saving themselves money and reducing their negative impact to the environment and protecting natural ecosystems.

The NCPCs programme developed in close cooperation with Ministries of Industry and Environment and with the direct participation of the emerging industrial sectors had assumed the challenges of contributing to the competitiveness and productivity increase of national industrial enterprises in developing countries and countries with economies in transition. In addition to assisting the industries in improving managerial, housekeeping and organization performance, the NCPC programme has given special attention to the diffusion and adaptation of cleaner technologies in the industrial sector in participating countries.

In order to reach the strategy's overall objective of promoting economy-wide, firm and sustainable productivity gains, UNIDO's Cleaner Production activities at country/enterprise level were clustered around two poles: **technology diffusion and market access**. For the Organization these are not two separated sets of activities, but they are well interrelated in the globalise market developing countries enterprises should compete.

Different Organization's departments cooperate in the implementation of the CP/EST transfer process at country level. The UNIDO'S CP Team cooperates with the UNIDO's Investment and Technology Promotion Offices, to use this department services as an avenue for promoting the transfer of cleaner technologies. The UNIDO's CP Team also benefits from the Energy group services to obtain GEF funds to support the transfer of energy efficient technologies in leading industrial sectors.

One of the primary issues on the international agenda at this time is the need to reach sustainable patterns of consumption and production. This was strongly stressed both in the UN Millennium Declaration of 2000 and in the World Summit on Sustainable Development, in 2002. The CP programme sponsored by UNEP and UNIDO is actively working to respond the international community calls on sustainable development.

This doesn't mean that the programme is fine as it is now and needs no improvements. Lessons have been learned as we've progressed, and there have been important changes in the context within which the programme works. Let me just touch on some of the more important of these. CP approach has contributed to reduce the negative impact to the environment due to incorrect, obsolete industrial practices, has assisted the enterprises to become more efficient, to reduce operating costs and to offer more competitive and environmentally friendly products to the market. We have learned about the cost effectiveness and intercultural benefits of strengthening the cooperation among the Cleaner Production Centres at regional level. The encouraging results of similar exercise in the Latin American and Caribbean Regions are now in the process of being replicated in the African region.

The challenge of the CP programme is to engage more enterprises in the process of transfer and adoption of environmentally sound technologies which require a significant investment in terms of money and also in time and human resources, but which in the end lead to much greater and more sustained reductions in energy and materials consumption. This is an issue that we are tackling now, in a number of ways: more of a sectoral focus in the centres, getting centres to assist enterprises to access investment funds, creating links with our own Investment and Technology Promotion Offices, preparation of feasibility studies and bankable projects etc. This is still a "work in progress", and will require strong cooperation among stakeholders.

As mentioned earlier in the year 2000 the global community adopted the Millennium Development Goals, which UNIDO – as well as the rest of the UN family – have adopted as their guiding light in their respective mandates. We want all our programmes – including the NCPC programme – to have them as the fundamental goals for specific projects. We could think it is easy in the CP programmes case since there was adopted a Millennium Development Goal to ensure environmental sustainability, and cleaner production is precisely about that!

But we strongly believe at UNIDO that the Goal to reduce extreme poverty is also highly relevant for the NCPC programme. The way out of poverty is through income generation; and large-scale income generation requires industrial development; and, even more in our globalize world, sustained industrial development in developing countries have to be export-led.

So the developing countries need enterprises that can manufacture products that find and keep a place in the world markets. Nowadays, more and more that means products not only with high quality but also manufactured in an environmentally and socially friendly way. This is where the NCPCs can make a great and enduring contribution.

The World Summit on Sustainable Development in 2002, in Johannesburg, called for reaching sustainable patterns of consumption and production. The Summit had a radical effect on the cleaner production world. Fundamentally, the message from WSSD is that if we truly wish to

reach sustainability, we must consider not only production aspects but also consumption patterns. And this means that we must not just look at production processes but also at the products themselves.

The UNIDO's CP team considers that overall CP programme response to the WSSD requirements should include the promotion of policies and programmes that bring about circular flow economies into the industrial practices as important element of the Organization's mandate on sustainable industrial development. The involvement and cooperative contribution of the UN family organizations within their respective mandates is absolutely necessary to comply with WSSD agreements. The UNIDO approach towards sustainable production and consumption includes among others the following elements:

- The materials used in the industrial practices should move in circular flows: from the "cradle" of production in the form of products, back to the "cradle" of production in the form of raw materials after the products have been used and discarded, avoiding as much as possible the emissions of waste to be treated and discharged.
- The magnitude of these flows should be reduced through efficiency measures including cleaner production and consumption approaches.
- It is necessary to promote the use of circular flows to encourage changes in the fundamental relation between manufacturers and users. Manufacturers should change from selling products to supplying services. One practical example of the above is the Chemical Leasing approach under experimental introduction in several countries. Egypt CPC and some industrial enterprises involved in it.
- Focus as much as possible on generation and use of renewable sources of energy.

So how we believe the programme should develop over the next 10 years? :

Basically, it is advisory to keep expanding the development horizons of the NCP centres services to their clients, always in the context of the preventive approach, and always with the idea that the centres are there to help enterprises become more productive and more competitive.

- By bringing about more diffusion of cleaner and environmentally sound technologies into the industrial sector.
- Integrating into the CP expertise the corporate social responsibility concept as a mean to facilitate the entrance to new markets.
- By becoming more involved in services for sustainable consumption and production, including the life cycle analysis for manufactured products for their further use and processing

Of course, none of this can happen if the centres cannot sustain themselves financially and institutionally. So here we need to keep on working to make the centres and the programme sustainable.

Colleagues, Ladies and gentlemen, let me wish you all the success during next day's meetings as well as for the future development of the programme.

Allow me once more thank you for the kind invitation to the meeting; thank the local authorities for the hospitality offered to us and express my wishes for the success and future development of the programme.

Thank you very much.

Vote of Thanks by the Director General of Environmental Protection Authority (EPA)
Dr. Tewelde Berhan Gebre Egziabher

**H.E. Ato Girma Wolde Ghiorgis,
President of the Federal Democratic Republic of Ethiopia
Excellencies Ambassadors,
Ladies and Gentlemen.**

It is a great honour for me to address this High-level meeting on the African 10-year Framework on Sustainable Consumption and Production with the most enjoyable task: that of giving a Vote of Thanks.

Africa consumes little; and I am sure that this present consumption must be more than sustainable. Africa produces little; and the sad thing is that even that little is produced in an unsustainable manner. I am reassured that Africa is proceeding to produce more, a lot more. Therefore, it is an appropriate point in its history to redirect its production to be sustainable, to broaden the base of this production, and to make it always environment friendly. Africa is also at an appropriate point in its history to ensure that, as its consumer goods increase, its consumption pattern adjusts to staying sustainable. In that way, we, Africans, can avoid the mistakes that other peoples of the world have made while industrializing. We would then always remain at peace with our environment and with our conscience.

I know H.E. President Girma's wish is that Africa takes this path of development. I know that fact because I know him well. Ethiopia is lucky to have president whose focus is on sustainability. Even if he is only doing what he loves, I would like to thank President Girma on behalf of all of us here.

Obviously from what I have now heard, Their Excellencies the Ambassadors of the Federal Republic of Germany and the Royal Kingdom of Morocco are supportive of sustainability too. Therefore, I feel honoured to thank them as well on behalf of all of us.

Thank you all for contributing to this High-level Launch Session.

**Annex two: Closing remarks by Mr. Mulugeta Amha, Executive Director of
Ethiopian Science and Technology Agency (ESTA)**

Distinguished Representatives of UNIDO and UNEP!

**Distinguished Participants of the Fourth African Roundtable on Sustainable Consumption
and Production!**

Directors of National Cleaner Production Centres!

Ladies and Gentlemen!

I am indeed honoured and it gives me immense pleasure to give my impressions and say a few remarks on this final day of the Fourth African Roundtable on Sustainable Consumption and Production.

All of you know that the global focus on issues of the Environment or Sustainable Development has been increasing during the last few decades and the series of meetings conducted by all concerned has led to the recognition of the precariousness of the situation in the world in this regard. As a result of the Johannesburg Plan of Implementation adopted by the World Summit on Sustainable Development in 2002, it has been accepted that regional programmes be formulated with the aim of alleviating the problems emanating from our unwise practices in consumption & production. As a follow up of this decision, we witnessed the official high level launching of the African 10YFP just a day before in this very conference hall that was developed with the active participation and useful contributions of many of you here as members of the ARSCP. I am also cognizant of the efforts and contributions of the National Cleaner Production Centres that are actually serving as the focal points for the development and implementation of programmes for sustainable consumption and production.

The Cleaner Production Centre established under the Agency in cooperation with UNIDO, has been serving as a focal point in providing services in awareness raising, information dissemination and trainings on Cleaner Production concepts & implementation. We have noted with great pleasure that a number of manufacturing industries have been supported by the Center to carry out Cleaner Production assessments and implemented waste minimization options with demonstrated economic, social and environmental benefits. The enterprises, which have implemented Cleaner Production, have been saving Birr 11.4 million per year by preventing more than 1650 MT/yr of materials from releasing to the environment as waste. The Cleaner Production Centre is also playing a major role in providing services for the improvement of environmental performances of many enterprises by assisting them implement the internationally recognized ISO 14001 based Environmental Management System and get certified for it. This activity, we hope will put Ethiopian enterprises at a more competitive position in the global market. The Agency has also intervened and supported many pertinent thematic areas related to the environment.

The Ethiopian Science & Technology Agency in collaboration with other concerned bodies & organizations will continue contributing to the efforts being made towards the implementation of the programmes that will be from now on defined under the major thematic areas of the African 10 Year Framework Programme for Sustainable Consumption and Production.

The Agency has always been supportive of SCP issues and has facilitated for the Ethiopian Cleaner Production Center to enable it play pertinent roles. The Sustainable Consumption & Production Programme developed in year 2005 for the Akaki River basin in cooperation with UNEP and other stakeholders can be cited as a good example. This programme, it is my belief, when implemented shall improve for the better the environmental condition of the Akaki River which traverses the industrial zones of Addis Ababa.

At this point, allow me to wish the participants of the Fourth African Roundtable on Sustainable Consumption and Production all the success in your future endeavours following your deliberations on the many interesting topics that were discussed during the whole period of the Roundtable.

Finally, I would like to thank UNEP and the African Roundtable for Sustainable Consumption and Production for organizing this eventful gathering. My thanks also goes to UNIDO, the Italian government and the Austrian government for the support they are providing to the Ethiopian Cleaner Production Centre to enable it play its useful role.

Last but not least, I would like to thank all the staff members from the UNEP Office, the Environmental Protection Authority and the Ethiopian Cleaner Production Centre who participated in the preparations for hosting such an important gathering and meeting, for their diligent and very successful work.

I wish all the international participants a safe journey back home and hope that you carry unforgettable memories from Ethiopia.

Thank you!!

**Participants of the
THE FOURTH AFRICAN ROUNDTABLE ON SUSTAINABLE
CONSUMPTION AND PRODUCTION (ARSCP-4)
29-31 May 2006, United Nations Conference Center, Addis Ababa, Ethiopia**

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