Report

Sustainable Consumption and Production for Sustainable Growth and Poverty Reduction

Addis Ababa, Ethiopia
24 to 26 June 2009

Jointly Organized by:
United Nations Economic Commission for Africa (ECA),
United Nations Environment Programme (UNEP) and
United Nations Industrial Development Organization (UNIDO)
Table of Contents

1.0 Introduction ......................................................................................................................... 1
2.0 Opening session .............................................................................................................. 1
3.0 Plenary session one ...................................................................................................... 3
4.0 Break-out sessions on the five thematic areas ............................................................... 7
5.0 Plenary Session Two .................................................................................................... 8
  5.1 Presentation and discussion of outputs on the review of the draft report on chemicals .......................................................................................................................... 8
  5.2 Presentation and discussion of outputs on the review of the draft report on waste management .................................................................................................................. 8
  5.3 Presentation and discussion of outputs on the review of the draft report on mining ................................................................................................................................. 9
  5.4 Presentation and discussion of outputs on the review of the draft report on transport ................................................................................................................................. 9
  5.5 Presentation and discussion of outputs on the review of the draft report Sustainable consumption and production (SCP) ............................................................................... 10
6.0 Way forward .................................................................................................................. 10
7.0 Closing Session ............................................................................................................. 11

Annex 1: List of participants .................................................................................................. 12
Annex 2: Outputs from the thematic break out session on chemicals and waste management: review of the draft report on chemicals ............................................................................. 20
Annex 3: Outputs presented from the thematic break out session on chemicals and waste management: review of the draft report on waste management ................................................. 27
Annex 4: Outputs presented from the thematic break out session on mining ..................... 34
Annex 5: Outputs presented from the thematic break out session on transport .................. 39
Annex 6: Outputs presented from the thematic break out session on sustainable consumption and production .................................................................................................................. 46
1.0 Introduction


2. The main objective of the meeting was to enable experts deliberate on and enrich the draft thematic regional review reports on mining, transport, chemicals, waste management and sustainable consumption and production. The reports will constitute the main background documents for the Africa Regional Implementation Meeting (RIM) scheduled for 27 to 30 October 2009. The reports are also intended to inform the SDRA. The specific objectives of the EGM were to:

- Review the regional thematic review reports with a view to identifying gaps, providing expert inputs, and proposing revisions that should form the basis for finalizing each of the reports;
- Identify, discuss and document the inter-linkages between the different thematic cluster of issues with a view to promoting synergies in the implementation of relevant sustainable development commitments; and
- Identify key indicative elements and consolidate these into a working report for the upcoming Africa RIM with a view to informing Africa’s RIM Statement to the 18th Session of the UN Commission on Sustainable Development (CSD-18).

3. The meeting brought together about 50 national and international experts and practitioners in the fields of mining, transport, chemicals, waste management and sustainable consumption and production from 15 countries, UN bodies and other organizations. The detailed list of participants is contained in Annex 1.

2.0 Opening session- Chair: Mr. Kwadwo Tutu, ECA

4. Mr. Josué Dioné, Director of the Food Security and Sustainable Development Division of the UN Economic Commission for Africa (ECA), on behalf of Mr. Abdoulie Janneh, the Executive Secretary of ECA, welcomed participants to the Meeting. He expressed appreciation to both UNEP and UNIDO for the productive collaboration in preparing the draft thematic reports, as well as in organizing the meeting.

5. Mr. Dioné observed that although sustainable development is a major policy goal and aspiration at global, regional and national levels, translating it into reality at a wider and deeper scale remains a major challenge. In this context he stressed the importance of assessing progress, showcasing good practices, and identifying and addressing obstacles to meaningfully upscale sustainable development initiatives. He said the SDRA is one of ECA’s flagship publications, which among others serves as an important medium for monitoring and assessing sustainable development in Africa, and for promoting the balanced integration of the three pillars of sustainable development.
6. He informed the meeting that starting with the second issue, the SDRA themes are aligned with the thematic cluster of issues to be considered by the UN Commission on Sustainable Development (CSD). In this regard, the third issue will be produced under the theme: “Sustainable Consumption and Production for Sustainable Growth and Poverty Reduction,” and covers the thematic areas of transport, mining, chemicals, waste management and sustainable consumption and production. Thus, in addition to serving as the basis for the SDRA, the reports will also inform the discussions at the Africa RIM.

7. He called on the experts to help identify and articulate practical and effective policy options and measures that will reinforce international commitment and lend greater momentum at all levels to embracing sustainable consumption and production as an integral element of poverty reduction and sustainable development. In this context, he stressed the importance of reflecting very carefully, on progress made in implementing the commitments under each thematic area, constraints to implementation, and the way forward. He singled out lack of adequate means of implementation as a major hindrance and urged the meeting to ensure that this is addressed in each of the thematic reports.

8. Mr. Strike Mkandla, the UNEP representative to ECA, AU and Ethiopia made remarks on behalf of the UNEP Regional Office for Africa. He said that since 2004, UNEP, in partnership with key regional and international partners has played an important role in the development of the Africa 10-Year Framework of Programmes (10-YFP) on Sustainable Consumption and Production (SCP). The Africa 10-YFP on SCP was approved by AMCN in 2005, and officially launched in June 2006. He informed the meeting that since the launch of the 10-YFP, UNEP has continued to support the further development and implementation of SCP programmes at national and local levels. This is being carried out in partnership with the Marrakech Taskforce on Cooperation with Africa, which is supported by the German Ministry of Environment, and the Secretariat of the African Roundtable on Sustainable Consumption and Production (ARSCP). He said the joint EGM on the third issue of SDRA was as a result of the unparalleled collaboration between UNEP and ECA on Africa’s regional preparatory process for CSD-18.

9. He noted that within the Marrakech Process, the collaborative approach employed in the development of the Africa 10-YFP on SCP has been recognized as a good model. This he said, was due to the process attributes namely, the development of a strong technical process at the regional level through the ARSCP; the regional political support and endorsement received through the African Ministerial Conference on the Environment; the broad interagency cooperation and support; and the international partnership and support provided through the Marrakech Taskforce on Cooperation with Africa, supported by Germany.

10. He said that CSD-18 offers a unique opportunity to transform the outcomes from the Marrakech Process, which is an informal experts-based process, into a more formal intergovernmental process. He challenged the EGM to play its role in shaping this transition so that the overall outcome of the CSD process would benefit Africa’s development. He welcomed the decision by ECA to take the issue of sustainable consumption as the core theme of the current SDRA, by underlining the linkage between sustainable consumption and production and sustainable growth and poverty reduction in the region. He observed that attention given to inter-linkages during the meeting would enable the region to address the five thematic areas to be considered by CSD-18 in a more integrated and comprehensive manner.
11. He noted that the coordinated and collaborative approach followed in the African preparatory process for CSD-18 is yet again being considered as a useful model to be followed by other regions. He therefore challenged participants to contribute maximally towards the development of comprehensive and substantive inputs for consideration by the Africa RIM.

12. Ms Aurelia Calabro, the UNIDO Deputy Country Representative to Ethiopia made remarks on behalf of UNIDO. She stated that UNIDO was strongly committed to sustainable industrial development in Africa; and that the UNIDO Director General, Dr. Kandah Yumkella, has made it the organization’s strategic priority to support green industry. In this connection she pointed out that UNIDO has an extensive portfolio of initiatives on Resource Efficient and Cleaner Production in Africa. In addition, she highlighted UNIDO’s active involvement in other green industry areas in the region, including energy, waste and chemicals.

13. She stressed that it was in the context of this commitment to green industry in Africa that UNIDO accepted ECA’s invitation to join forces in the technical review of the thematic areas to be discussed in the upcoming CSD cycle. As such, UNIDO agreed to lead and sponsor the technical reviews on environmentally sound management of chemicals and waste in Africa. She said UNIDO had commissioned experts from eight African countries to undertake the review. She urged the meeting to come up with a consolidated framework of achievements, lessons learned and policy recommendations to be considered by the upcoming CSD sessions.

3.0 Plenary session one - Chair: Mr. Desta Mebratu, UNEP

14. The main highlights of this session were brief presentations outlining the main findings of the review exercises, as contained in the draft reports. The intent was to enable experts assess progress in implementation, reflect on the challenges, the inter-linkages between the different thematic areas, seek clarifications and provide initial comments on the draft thematic reports.

Draft review report on chemicals

15. Professor Shem O. Wandiga presented the Draft Review Report on environmentally sound management of chemicals in Africa. He highlighted that Agenda 21 chapters 2, 3, 4, 6, 9, 14, 17, 18, 19 and 20, contain chemicals-related commitments and targets that countries should implement. He also gave an overview of the Africa region in terms of its demographic, geographical and socioeconomic characteristics.

16. He singled out mining as an important economic activity that has implications for chemicals management, pointing out that there is outsourcing of some industrial processing to Africa due to weak regulation, resource abundance and cheap labor. Although mining is not the only source of environmental pollution, it can have detrimental effects such as contamination of groundwater with heavy metals, silting and sedimentation of riparian ecosystems. Other sources of chemicals in the environment are industrial processes (e.g. polychlorinated biphenyls (PCBs) and heavy metals), agriculture (pesticides), or accidental industrial by-products (e.g. polychlorinated dibenzo-p-dioxins and furans-PCDD/Fs), medical and cosmetic wastes, incineration of hazardous chemicals, lack of shredder plants,
burning of scraps, steel fabrication, and domestic waste burning, all contributing to dioxin and furan contamination.

17. Although Africa’s contribution to value-added production of chemicals is not very significant, current trends suggest that its contribution to global production will continue to grow as manufacturing in general (not just chemical manufacturing only), will be relocated from OECD countries to developing countries in the medium term. Moreover, water borne diseases, especially malaria control using aerosols and DDT, increased use of pesticides (persistent organic pollutants) pose a serious threat to the health of both rural and urban populations, and contribute to land and water degradation. He informed the meeting that at least 20,000 tons of obsolete pesticides and tens of thousands of tons of contaminated soils have accumulated in most African countries over long periods, and more than 40,000 tons, perhaps even much more, of these chemicals are stocked or discarded in many parts of Africa.

18. In order to prevent these problems, a number of Multilateral Environmental Agreements (MEAs) on Chemicals have been adopted namely: The Basel Convention on the Trans-boundary Movement of Hazardous Wastes and their Disposal, The Rotterdam Convention, Stockholm Convention, The Montreal Convention on Ozone Depleting Substances, Strategic Approach to Chemicals Management (SAICM). Challenges in implementing environmental conventions are lack of appropriate policies and programs, lack of collaboration among African countries and involvement of regional institutions, as well as weak regulations and capacity.

Issues arising:

19. The following were raised during the discussions:

- Recommendations on the report should include enhancing compliance with environmental regulations and enforcing labeling by exporting countries, given that most African countries are net importers of chemicals.
- Universities and other research institutions need to be involved in the implementation of conventions.
- Reducing the need for chemicals should be explored (especially by promoting organic farming), in order to reduce chemicals in circulation.
- Facts relating to the use of DDT in controlling malaria transmission in Africa, vis-à-vis the use of aerosols should be crosschecked.
- The report should highlight the need to explore the recycling of chemicals.
- There is need to harmonize and update some of the statistics used in the report.

Draft review report on waste management

20. Dr. John Mbogoma, outlined the methodology adopted for the preparation of the report. He informed the audience about the status of country reports for the three selected countries namely Egypt, Kenya and Zambia. These reports cover issues of waste characteristics, and management practices such as collecting, transportation, recycling, recovery, incineration and land filling.

21. He also discussed the experience of Africa as a whole in terms of waste management. He noted that although the situation in Africa is varied, in general, waste disposal rather than
waste management is practiced, due to technological and resource limitations. Waste management is made more difficult by conflicts and the absence of regulatory frameworks. Some African countries have not ratified MEAs on waste and chemicals. This situation has resulted in poor hygiene, lack of access to clean water and sanitation. Therefore, many African countries will not be able to meet the Millennium Development Goal target of reducing by half the proportion of people without sustainable access to safe drinking water and basic sanitation, by 2015.

Issues arising:

22. During the ensuing discussions, the following recommendations were made:

The report should:

- Address the mining and construction sectors as sources of waste in Africa.
- Address second hand materials including clothes, dumped into the African continent.
- Stress the importance of enforcing penalties in national dumping waste laws.
- Analyze the application of environmental policy, especially economic instruments, institutional and legal issues.
- Highlight the importance of innovations and should stress waste minimization as an important strategy in waste management

Draft review report on mining

23. Ms. Milha Desta, gave an overview of mining in Africa. She noted that mining is associated with many problems such as conflicts and the “Dutch disease” and has not contributed significantly to sustainable development in Africa. Key achievements of the sector include: regional regulatory mechanisms; transparency initiatives; harmonization of mining regulatory frameworks in SADC, ECOWAS; development of the Africa Mining Vision; and fostering partnerships (tri-sector, Africa mining partnership, partnership Africa Canada, UNEP Global Mercury Partnership, UNCTAD Mineral Resources Forum). Challenges highlighted included issues pertaining to the share of mining in total merchandise trade in Africa, poorly developed linkages with other sectors of economies, health, environmental and social impacts, participation of local and indigenous communities, gender imbalance in terms of harmful impacts of mining and challenges associated with the artisanal and small scale mining sector.

Issues arising:

24. The following were among the issues raised:

- The suggestion by the report that Africa’s development is linked to mining needs to be substantiated as the sector is weakly linked to other sectors in most economies, backward/forward linkages are not well developed.
- Mining has not contributed much in Africa, since there is a missing link between mining and other sectors. The report should address the question of how mining can linked to other sectors to propel further development in the continent.
- The statement that mining has not contributed much to sustainable development on the continent should be substantiated with concrete illustrations.
Economic, as well as environmental aspects of sustainable development with respect to mining were oversimplified in the report and therefore need deepening.

A close look at WSSD paragraph 46 may lead to the conclusion that “sustainable mining” is unattainable. However, linking mining to other sectors could lead to sustainable development.

There is need to look at environmental and social impacts that might arise after the closure of mines. Recommendations should include the application of differential “Ricardian” rents of mining on infrastructure, human development, and energy development.

The discussion on corporate social responsibility needs strengthening, including a discussion of the potential challenges.

Given that mining is both an energy intensive sector and a producer of carbon intensive fuels (fossils), the report should address energy consumption in mining as a critical sustainable development issue.

The report should address the issue of primary and secondary metal production and industry trends (takeovers, acquisitions and mergers), which have created 3-5 mining giants operating in Africa. It is considered crucial that the report addresses how these mining giants will influence the policy arena.

**Draft review report on transport**

25. Mr. Abii Tsige first outlined the methodology used for the review, which was mainly a desk study. He then pointed out the role and potential of transport in economic growth and poverty reduction through the creation of employment. He presented the different modes of transport such as road transport, railways transport, maritime transport, inland water transport and air transport. He touched on cross cutting issues such as transport facilitation, check points, customs declarations, transport and the environment (greenhouse gas emission aggregate levels are low but rising rapidly), transport and health, transport cost, transport safety and security, transport and information systems, as well as the limited financial resources allocated to transport in Africa.

**Issues arising:**

26. Issues raised included:

The report should:

- Include an analysis of transport and regional development, facilitation of trade and mobility, and development and implementation of uniform regulatory frameworks in the transport sector.
- Address the importance of development and implementation of integrated transport master plans.
- Adequately reflect issues of integrating transport development and land use plans.
- Address the link between transport and waste (such as used vehicles, emissions).
- Deal with the need to implement regional and international conventions and declarations (e.g. Yamoussoukro Declaration).
- Highlight the link between transport and mining.

**Draft review report on sustainable consumption and production**
27. Professor Toolseeram Ramjeawon provided a definition of sustainable consumption and production and stressed its importance in sustainable development. He said that SCP is aimed to “break the link between economic growth and environmental degradation and promote economic and social development within the carrying capacity of ecosystems”. He said that the report attempted to respond to the following objective: “to undertake an in-depth review of concrete actions taken and achievements made, identify and document implementation challenges and constraints, and propose the way forward to accelerate implementation progress in the area of SCP in Africa”. He gave an overview of economic trends in Africa, and provided the status of SCP in the region. He stated that the main challenges facing Africa in the area of SCP included: lack of political and public commitment, lack of national programmes/action plans, insufficient capacity building in SCP tools, insufficient expenditure in research and development in SCP, lack of integration of SCP into educational curricula, weak media contribution, and lack of enforcement capacity, weak application of economic instruments and inadequate financial support, domestic or external.

Issues arising:

28. The following emanated from the brief discussion following the presentation:

- Although controversial, the issue of lack of political will is important and measures to achieve enhanced political commitment and support for SCP should be promoted. The report should emphasize the importance of the participation of all stakeholders from inception/conception of SCP initiatives to enhance uptake.
- As SCP is a new theme in Africa, it is important to make sure that the countries understand what the concept is about, to have a clear concept and to show that it could be a strategic tool for African countries to move to a higher level of development.
- The author should cross-check the statistics used in the report in order to ensure their reliability and also harmonize data/statistics with the other reports.

4.0 Break-out sessions on the five thematic areas

29. The meeting split into four breakout groups, which met over a period of one day and a half, to examine in great depth the draft thematic reports and present their findings to plenary.

The four groups deliberated on:

(i) Chemicals and Waste management;
(ii) Mining;
(iii) Transport; and
(iv) Sustainable consumption and production.

30. Each group was expected to:

(i) Produce a report identifying gaps, providing comments, additional inputs and recommendations for improving the report, with special emphasis on lessons learned and the way forward – recommended policy actions and other measures to accelerate implementation;
(ii) Identify the inter-linkages between the different thematic areas; and

(iii) Produce a thematic report/inputs for the Draft Working Document for the Africa RIM Statement (up to 5 pages for each theme), containing key elements under the following subtitles: (i) major trends and emerging issues; (ii) implementation progress and achievements (including best practices); (iii) current and future implementation challenges and constraints; (v) lessons learned and recommended priority policy measures and actions to accelerate implementation; and (v) conclusions including Africa’s expectations from the international community.

31. During the break out sessions, detailed presentations were made on the draft thematic reports. These were followed by in-depth examination of the draft reports.

5.0 Plenary Session Two - Chair: Mr. René Van Berkel, UNIDO

32. During this session, the four breakout groups presented their respective outputs. Each presentation was followed by general discussions.

5.1 Outputs of the breakout group on chemicals

33. Annex 2 presents the chemicals-related outputs of the working group on chemicals and waste management. These include comments on each of the country review reports, Tanzania, South Africa, Nigeria and Morocco. These country reports will be presented as case studies in the regional review report. Other outputs are conclusions on implementation progress in relation to the various commitments/targets on waste management; and a summary policy statement (inputs to the working document for the RIM statement)

Issues arising:

- Nigeria should be included among the countries that have experienced incidents of chemical accidents in Africa.
- For consistency purposes, AU and NEPAD should continue to be treated as separate entities, as the process of integrating NEPAD into mainstream AUC structures is still ongoing.

5.2 Outputs of the breakout group on waste management

34. Annex 3 presents the waste-related outputs of the working group on chemicals and waste management. These include comments on the country review reports, Egypt, Kenya and Zambia. These country reports will be presented as case studies in the regional review report. Other outputs are conclusions on implementation progress in relation to the various commitments/targets on waste management; and a summary policy statement (inputs to the working document for the RIM statement)

Issues arising from plenary discussions

- The generalization that some countries are investing in waste minimization because of land shortage should be supported with concrete examples. However, in some countries, waste reduction practices are being undertaken to extend the lifetime of
landfills given that commissioning and operating sanitary landfills is an expensive venture.

- There is need to design and introduce appropriate economic instruments for waste minimization in cities, particularly big ones.

5.3 Outputs of the breakout group on mining

35. Annex 4 presents the outputs of the group. These are: comments on the draft report, including a proposal for restructuring the report; and inputs to the working document for the RIM statement to CSD 18 and 19.

Issues arising:

- Mining needs to take into account social and environmental concerns in order to ensure sustainability. The adoption of the life cycle approach to adequately cater to post closure, including ensuring the continued viability of mining towns after mining activities have long ceased, could help promote sustainable mining. It is therefore important that alternative activities to mining are promoted in mining towns to avoid the negative social impacts of mine closure.

- Quarrying activities should also be considered under mining, as they involve the blasting and extraction of rocks that could have significant economic, environmental and social impacts.

- The use of explosives in mining activities should also be addressed, as they are another source of local air pollution and GHG emissions.

- Mining cannot be termed sustainable if interpreted in the narrow sense, as it involves the extraction of finite resources. Therefore, there is need to define mining beyond extraction of minerals and to take into account the benefits of linkages through beneficiation and also consider the environmental, economic and social dimensions of sustainable development. A total life cycle approach has to be applied in the analysis of the minerals sector and it contribution to sustainability. Associated with this, is the need to capacitate local authorities to effectively regulate mining activities and manage the benefits of mineral exploitation.

5.4 Outputs of the breakout group on transport

36. Annex 5 presents the outputs of the group. These include: comments on the draft report; and inputs to the working document for the Africa RIM statement to CSD 18.

Issues arising:

- There is need to consider the age of vehicles in relation to their polluting potential. Another issue is the cost implication for Africa, if policies should advocate for the importation of newer vehicles on environmental grounds. However, to be noted is the fact that modern vehicles are more energy efficient and pollute less.
Energy efficient vehicles help mitigate local air pollution while at the same time contribute to reducing greenhouse gas emissions. At present, vehicular emissions tend to be more localized (intensities varying by location) and therefore not generally a real threat for Africa. This fact notwithstanding, it has been observed that some African cities are more polluted in comparison to some industrialized cities.

The possibility of retrofitting old vehicles to make them more energy efficient could be explored. On age of airplanes operated in Africa, it might be informative to link this to accidents and to determine whether African air transport is safe or not. The report could assess the cost of traffic congestions, including health and environmental costs, as literature on these issues is readily available.

There is need to effectively plan for multimodal transportation infrastructure. This should include adequate provision for mass and bulk transportation, as well as space for pedestrians and cyclists. Construction of sustainable roads from industrial waste should also be considered.

There is need to adequately train drivers in the theoretical and practical aspects of driving in order to reduce road accidents. There is need for a change in mindset regarding the current notion of driving being an unskilled labor vis-à-vis skilled labor. It is also important to learn from best practices that have led to significant reductions in road traffic accidents.

5.5 Outputs of the breakout group on Sustainable consumption and production

Annex 6 presents the outputs of the group. These include: comments on the draft report; what Africa needs from the international community (concrete projects in the area of SCP in Africa); comments and inputs to the Global 10-Year Framework of Programme on SCP; and highlights of some inter-linkages between SCP and the other thematic areas based on life cycle thinking.

Issues arising:

There is need to translate regional agreements into implementable national and local action plans in order to make a real difference on the ground. Political will is critical to achieving this. In this respect, there is need to appropriately package products to enable politicians understand and appreciate the benefits in order to engender the necessary action. A good example is linking SCP to the challenge of meeting basic needs.

6.0 Way forward

The following were proposed:

Experts will provide additional written comments as may be required for the different themes, as soon as possible.

Consultants should aim to complete and submit final reports no later than July 31, 2009. Refining the inputs into the working document for the RIM statement will be done concurrently and the final inputs will be produced by the 31 July 2009.
• The lead institutions will review and provide ECA with the final review reports and inputs to the RIM statement.
• Revised thematic reports will be circulated to the experts in good time, ahead of the Africa RIM scheduled for 27 to 30 October 2009.
• The reports should ensure the data used are harmonized.

7.0 Closing Session - Chair: Mr. Kwadwo Tutu, ECA

39. Mr. Réné Van Berkel, on behalf of UNIDO, thanked participants for their fruitful discussions. He also thanked ECA and UNEP for their collaborations, and expressed appreciation for their valuable contributions.
40. Mr. Desta Mebratu, on behalf of UNEP, expressed his appreciation for the successful EGM and thanked participants for their inputs.

41. Mr. Josué Dioné, on behalf of ECA, emphasized the need to translate the recommendations contained in the various reports into concrete actions on the ground. In this regard, he emphasized the importance of political will. He cited Malawi as a country where demonstrated political will has transformed the country from a net food importer to a food exporter. He expressed his gratitude to the participants for their inputs to the technical reports. He also thanked UNEP and UNIDO for their collaboration, which greatly contributed to the success of the EGM.
Annex 1:  List of participants

Mr. Donat Bagula Mugangu
Coordinator for follow-up of Regional Issues
Ministry of Transports and Communications
536, Av. Aerodrome
P.O. Box 4846
Kinshasa, DRC
Tél: +243 998182103
Fax: 00448701300650
Email: bagulamugangu@yahoo.fr

Mr. Tajudeen Tunde Tairu
Director
Environmental Sanitation and Sewerage
Ministry of Environment & Water Resources Secretariat
Ibadan, Oyo State
Nigeria
Telephone: +234 80 3473 2640
E-mail: tttairu@yahoo.com

Mr. Tajudeen Tunde Tairu
Director
Environmental Sanitation and Sewerage
Ministry of Environment & Water Resources Secretariat
Ibadan, Oyo State
Nigeria
Telephone: +234 80 3473 2640
E-mail: tttairu@yahoo.com

Mr. Hazvinei Munjoma
Consultant
Danish Technology Institute - South Africa
International Department
Unit 30, Crestwood Clusters
1st Road Glen Marais, Kempton Park
Code 1619
Johannesburg, South Africa
Telephone: +27 73 242 9124
E-mail: hmunjoma@mweb.co.za

Mr. Tajudeen Tunde Tairu
Director
Environmental Sanitation and Sewerage
Ministry of Environment & Water Resources Secretariat
Ibadan, Oyo State
Nigeria
Telephone: +234 80 3473 2640
E-mail: tttairu@yahoo.com

Mr. Hazvinei Munjoma
Consultant
Danish Technology Institute - South Africa
International Department
Unit 30, Crestwood Clusters
1st Road Glen Marais, Kempton Park
Code 1619
Johannesburg, South Africa
Telephone: +27 73 242 9124
E-mail: hmunjoma@mweb.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za

Mr. Tajudeen Tunde Tairu
Director
Environmental Sanitation and Sewerage
Ministry of Environment & Water Resources Secretariat
Ibadan, Oyo State
Nigeria
Telephone: +234 80 3473 2640
E-mail: tttairu@yahoo.com

Mr. Hazvinei Munjoma
Consultant
Danish Technology Institute - South Africa
International Department
Unit 30, Crestwood Clusters
1st Road Glen Marais, Kempton Park
Code 1619
Johannesburg, South Africa
Telephone: +27 73 242 9124
E-mail: hmunjoma@mweb.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za

Mr. Tajudeen Tunde Tairu
Director
Environmental Sanitation and Sewerage
Ministry of Environment & Water Resources Secretariat
Ibadan, Oyo State
Nigeria
Telephone: +234 80 3473 2640
E-mail: tttairu@yahoo.com

Mr. Hazvinei Munjoma
Consultant
Danish Technology Institute - South Africa
International Department
Unit 30, Crestwood Clusters
1st Road Glen Marais, Kempton Park
Code 1619
Johannesburg, South Africa
Telephone: +27 73 242 9124
E-mail: hmunjoma@mweb.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za

Mr. Hazvinei Munjoma
Consultant
Danish Technology Institute - South Africa
International Department
Unit 30, Crestwood Clusters
1st Road Glen Marais, Kempton Park
Code 1619
Johannesburg, South Africa
Telephone: +27 73 242 9124
E-mail: hmunjoma@mweb.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za

Mr. Ndivhuho Raphulu
Director
South African National Cleaner Production Center
P.O. Box 395, Pretoria, 0001 RSA
Telephone: +27 712 841 3772
Fax: +27 12 841 5039
Email: nraphulu@csir.co.za
Dr Atwa Hussian Ahmed Atwa  
Director  
Greater Cairo Directorate  
Egyptian Environmental Affairs Agency  
Tel: (202) 381 7386/38173890/37173894/0127150225 (cell)  
Fax: (202) 38173893  
Email: dr_atwaatwa@yahoo.com

Mr Edward Moeketsi  
Deputy Director  
National Planning  
Department of Water and Environment Affairs  
Private Bag X447, Pretoria 0001  
South Africa  
Tel: +27 12 310 3640  
Fax: 27 012 322 5890  
E-mail: emoeketsi@deat.gov.za

Mr. Momodou Canteh  
Director  
Technical Services Network  
National Environment Agency  
P.O. Box 48  
5 Fitzgerald Street  
Banjul, Gambia  
Tel. (220) 422 8056 / 422 3206  
Fax: (220) 422 9701  
E-mail: momodoucanteh@yahoo.com, nea@gamtel.gm

Ms. Vineela Pillay  
Director  
International Sustainable Development and Trade Co-operation  
Department of Environment  
Private Bag X447  
Pretoria 0001, South Africa  
Tel. 27 12 310 3201  
Fax: 27 12 322 1003  
E-mail: pillaqv@deat.gov.za

Mr. Ben Aryee  
Chief Executive  
Minerals Commission  
P.O. Box M248  
Accra, Ghana  
Tel: +233 21 77 1317  
Fax: +233 21 773 324  
E-mail: benglo59@gmail.com

Ms Grace Stead  
Sustainable Consumption and Production Manager  
ICLEI  
2 Dauphine Close  
P.O. Box 7407  
Cape Town, South Africa  
Tel: +27 21 559 1414  
Fax: +27 21 788 65 38  
Email: grade.stead@mweb.co.za, grace@steadfastgreening.co.za

Dr John Afari Idan  
CEO  
Biogas Technologies West Africa Ltd.  
14/2 Guava Crescent Comm. 19, Lashibi Tema  
Tel: +233 244 461959  
Email: info@biogasonline.com

Mr. Paul Jourdan  
Consultant  
23 Mountainview Ave.  
Johannesburg, 2195  
South Africa  
Tel: 27 82 7898824  
Email: paulj1952@gmail.com
Mr. Jonathan Addo Allotey  
Executive Director  
Environmental Protection Agency  
P.O Box M326, Accra  
Tel: +233 21 662 693  
Fax: +233 21 662 690  
Email: jallotey@epaghana.org, jan_allotey@yahoo.com

Mr. Tlou Ramaru  
Deputy Director  
International Sustainable Development  
Department of Environment  
P. Bag X447  
Pretoria, 0001  
Tel. 27 12 310 3331  
E-mail: tramaru@deat.gov.za

Mr. Daniel Kwabena. Twerefou  
Senior Lecturer  
Department of Economics  
University of Ghana  
P.O. Box LG 57, Legon, Accra, Ghana  
Tel: (Off): 233 21 501 485 / (Mob) 233 244 603 676  
E-mail: twerefou@ug.edu.gh; twerefou@yahoo.co.uk

Ms. Anne N. Magashi  
Deputy Executive Director  
Cleaner Production Centre of Tanzania  
Tel:: +255 754 686 793 / 255 22 2602 339  
Fax: 255 22 2602 339  
E-mail: anmagashi@arscp.org, anmagashi@yahoo.com

Mr. Naftali Ndugire  
Principal Programmes Coordinator  
National Environment Management Authority  
Department of Environment Planning  
P.O. Box 67839-00200  
Nairobi, Kenya  
Tel.: 0721 311 919  
Fax: 254 20 608997  
E-mail: njmn100@yahoo.com

Mr. Binelias Mndewa  
Deputy Executive Director  
Cleaner Production Centre of Tanzania  
PO Box 105581, Dar es-Salaam  
Tel: +255 22 260 2338  
Fax: +255 22 260 2339  
Email: bsmndewa@arscp.org

Ms. Jane Nyakang’o  
Director  
Kenya National Cleaner Production Centre  
P.O. Box 1360, 00200  
Nairobi, Kenya  
Tel: +254 20 604 870  
Fax: 254 20 604 871  
E-mail: jnyakango@cpkenya.org

Mr. Shem Oyoo Wandiga  
Professor  
Centre for Science, Technology and Innovations  
P.O. Box 42792  
00100 Nairobi, Kenya  
Tel.: +254 203 15540  
Fax: +254 20 247301  
E-mail: sowandiga@iconnect.co.ke, wandigas@uonbi.ac.ke

Mr. J. M. Mbogoma  
General Manager  
National Ranching Company  
Department of Administration  
P.O.Box 75176  
Dar-es-Salaam, Tanzania  
Tel: +255 754 841 399  
Fax: 255 222 111 956  
E-mail: jimmbogoma@yahoo.co.uk

Mr. Cleophas Migiro  
Executive Director  
CPCT  
P.O. Box 105581  
Dar-es-Salaam, Tanzania  
Tel.: 255 22 2602 338  
Fax : 255 22 2602 339  
E-mail : cmigori@arscp.org, cmigori2002@yahoo.com, cpc@arscp.org
Prof Toolseeram Ramjewon
Professor
University of Mauritius
Saran Villa Lane Belle Etoile
Tel: +230 7747660
Fax: +230 4657 144
Email: ramjawon@uom.ac.mu

Mr. Charles Mutemo
Senior Environment Officer
Ministry of Works & Transport
Quality Management
P.O. Box 10 Entebbe, Uganda
Tel: (256) 772 315 061
Fax: +256-414-320135/321364
Email: mutemocharles@yahoo.com,
emutemo@works.go.ug

Mr. Abdesselame Hajjani
National Expert
CMPP
22 bis Rue Oussama Ibnou Zaid Maarif
Casablanca, Morocco
Tel: 2 1 252 299 53 82
Fax: 212 522 99 53 80
Email: abd.hajani@menara.ma

Mr. Patrick Mwesigye
Director
Uganda Cleaner Production Centre
P.O. Box 7184
Plot M217 Jinja Road
Kampala, Uganda
Telephone: +256 77 2482057
Fax: 256 414 287 940
Email: pmwesigye@ucpc.co.ug

Mr. Leonildo Candido Guiruta
Director
Mozambique National Cleaner Production Center (MNCPC)
154, Rua Romao Fernandes Famnha 1st Floor, Maputo
Tel: +258 823235040
Email: mncpc@tvcabo.co.mz

Mr. Patrick Mwesigye
Assistant Commissioner, Planning
Ministry of Works, and Transport
P.O. Box 10
Entebbe, Uganda
Tel.: 256 414 320 101 / 9
Fax: 256 414 320 259
Email: kajunab@yahoo.co.uk

Mr. Desta Mebratu
Head, Business and Industry Unit
Sustainable Consumption and Production Branch
Division of Technology, Industry and Economics (DTIE)
United Nations Environment Programme (UNEP)
15 rue de Milan, 75441 Paris Cedex 09, France
Tel: +33 1 4437 1988
Fax: +33 1 4437 1474
Email: desta.mebratu@unep.org

Mr. Nis Christensen
Programme Officer
United Nations Environment Programme,
Division of Technology, Industry and Economics
Tour Mirabeau, 39-43 quai Andre Citroen,

Ms. Kristen Bauman
Diplomat-Environment
US State Department
Department of Environment
U.S. Embassy Addis Ababa
Tel: +251-11-517-4385
Email: baumanks@state.gov

Mr. Ulf Jaecker
Government Official
Federal Ministry of Environment
Department – SCP
P.O. Box 10178
Berlin, Germany
Tel. 49 173 8869465
E-mail: ulf.jaeckel@emu.lund.de
Ms. Josephine Bauer          
Junior Program Officer      
United Nations Environment  
Programme,  
Regional Office for Africa  
Nairobi, Kenya            
Tel: +254 725 051012  
Fax: +254 20 7623928  
Email: josephine.bauer@unep.org

Ms. Calabro’ Aurelia         
SIDO and Deputy UNIDO Representative  
UNIDO Regional Office  
P.O. Box 5580  
Addis Ababa, Ethiopia  
Tel.: 251 11 552 12 58  
E-mail: aurelia.calabro@undp.org

Mr. Strike Mkandla           
UNEP Liaison Office for AU and ECA in Ethiopia  
Tel. 544 30 04 / 544 54 02  
Fax: 251 115521633  
Email: smkandla@uneca.org

Mr. René Van Berkel        
Chief  
Cleaner and Sustainable Production Unit  
UNIDO  
P.O. Box 300, 1400 Vienna  
Vienna, Austria  
Tel.: 43 1 260 26 3945  
Fax: 43 1 26026 6819  
E-mail: r.vanberkel@unido.org

Ms Jane Akumu               
Programme Officer, Transport Unit  
Division of Technology, Industry and Economics (DTIE)  
United Nations Environment Programme (UNEP)  
P.O.Box 30552  
Nairobi 00100, Kenya  
Tel.: +(254-20) 7623223  
Fax: +(254-20) 7625264  
Email: Jane.Akumu@unep.org

Mr. Wilfred Lombe          
Economic Affairs Officer  
UNECA, SRO-SA  
P.O. Box 30647  
Lusaka, Zambia  
Tel.: 260 211 22 85 02  
Fax: 260 211 236 949  
E-mail: wlombe@uneca.org

Mr. Godwin Punungwe        
Transport Advisor  
USAID Southern AfricaGlobal Competitiveness Hub  
Plot 40, Units 1, CommercePark  
P.O.Box 602090, Gaborone, Botswana  
Tel: (267) 390 0884  
Fax: (267) 390 1027  
E-mail: gpunungwe@satradehub.org

Mr. Joseph Foumbi          
Economic Affairs Officer  
United Nations Economic Commission for Africa (UNECA/SRO-WA) Ext. 21533  
P.O Box 744, Niamey, NIGER  
Tel.: (227) 96 26 21 94  
Fax: (227) 20 72 28 94  
E-mail: fjoseph@uneca.org
Fax: 551 44 16
E-mail: igaye@uneca.org

Mr. Taro Boel
Associate Economic Affairs Officer
Agricultural Production Systems
Sections (APS)
FSSD
P.O. Box 3005
Addis Ababa, Ethiopia
Tel. 544 52 55
Fax 551 44 16
E-mail: tboel@uneca.org

Mr. Belay Abate
Intern at FSSD/ESD and student at Duke University
6108 Wold Park Dr.
P.O. Box 27606
Raleigh, USA
W. 17 K. 17
Addis Ababa, Ethiopia
Tel.: 720 341 6233/0910 85 68 04
E-mail: baatate04@yahoo.com

Mr. Benjamin Banda
Associate Economic Affairs Officer
Agricultural Marketing and Support Services Section (AMS)
FSSD
Tel. 544 52 13
Fax: 551 44 16
E-mail: bbanda@uneca.org

Mr. Kaleab Baye
Intern (AMS)
Food Security and Sustainable Development Division
Tel. 544 52 59
E-mail: kbaye@uneca.org

Mr. Charles Akol
Environment Affairs Officer
FSSD/ESD
P.O. Box 3005
Addis Ababa, Ethiopia
Tel.: 544 33 49
Fax: 551 44 16
E-mail: cakol@uneca.org

Ms. Siham Abdulmelik
Consultant
ECA/NRID
Tel. 544 30 98
Fax: 551 44 16
E-mail: sabdulmelik@uneca.org

Ms. Marie T. Guiebo
Economic Affairs Officer
ECA/NRID
Tel. 544 53 52
E-mail: mguiebo@uneca.org

Ms. Tarik Kassa
Consultant
ECA/NRID
Tel. 544 30 98
Fax: 551 44 16
E-mail: tkassa@uneca.org

Mr. Gladys Mutangadura
Economic Affairs Officer
ECA/ACGS
P.O. Box 3001
Addis Ababa, Ethiopia
Tel. 0912 04 32 11
E-mail: gmutangadura@uneca.org

Mr. Yonas Bekele
Intern
ECA/NRID
Tel. 544 52 28
Fax: 551 44 16
E-mail: ybekele@uneca.org

Mr. Nega Emiru
Programme Assistant
Food Security and Sustainable
Annex 2: Outputs of the breakout group on chemicals and waste management: review of the draft report on chemicals

Output 1: Comments on the draft country reports on chemicals:

The overall comments on all the reports were that:

The overviews were comprehensive;
The impact of chemicals on agriculture and health, and use in the mining sectors were not adequately covered; and
More recent quantitative figures on the chemicals use profile in each of the countries should be incorporated into each of the reports.

Tanzania

The report should:

- Include quantitative data;
- Highlight lack of financial and human resources should among the main constraints in chemicals management; and
- Highlight the need for enhanced international and regional cooperation in chemicals management.

South Africa

The report should:

- Provide details, including quantitative data;
- Include boxes on best practices in chemicals management;
- Provide a complete vision for the life cycle of chemicals;
- Highlight knowledge management as an essential strategy in sound management of chemicals;
- Include information on the links between mining and chemicals, especially impacts of chemicals use and waste from the mining sector; and
- Emphasize ownership as an essential element in achieving effective implementation.

Nigeria

The report should:

- Minimise the text book review and focus on practical aspects of chemicals management;
- Employ simple language;
- Follow the guidelines issued for the preparation of the national reports and should therefore be restructured accordingly; and
- Include some best practices on chemicals management in Nigeria.
**Morocco**

The report should:

- Be restructured taking into account the guidelines issued for preparing the reports; and
- Link chemicals management with other development sectors

**Output 2: Conclusions on implementation progress**

(a) Sound management of chemicals throughout their lifecycle for Sustainable development (SD): by 2020 Minimization of significant adverse effects on human health and environment; reduction of risks from heavy metals; and risk assessment and reduction

- Many countries have put in place sector policies and institutions for environmentally sound management of chemicals (e.g. environmental management Acts, pesticides registration, waste management Acts, etc.). But integration between the sectoral policies remains a challenge. Only few countries have started to coordinate between sectors that use different chemicals.
- There are examples of best practices in various countries (e.g. cleaner production centers, national action plans etc.). But these still need to be up-scaled and mainstreamed.
- There is good progress in eliminating heavy metals from some applications (in particular lead free gasoline, better practices for mercury use in small scale mining) and studies are available on heavy metals contained in some traded products.
- Some countries have started to employ risk based methods for national chemicals profile and/or chemicals tracking. However risk assessment capacities are underdeveloped in many countries, and should therefore be prioritized.
- Many countries have carried out inventories of chemical stockpiles, in particular, obsolete pesticides and expired drugs.

(b) Promote ratification and implementation of international instruments

- Many countries have acceded to/ ratified the key international chemicals conventions (Rotterdam, Basel, Stockholm and Montreal), and in most cases. However, domestication of the conventions and development and implementation of national implementation strategies and plans remains slow.
- The Bamako convention is yet to be operationalized, and lacks a financial mechanism.
- The diversity and scope of MEAs is in many countries, beyond the immediate implementation capacity. Countries would benefit from harmonization and integration of MEAs and the use of risk-based processes for prioritization of commitments at the national level.
- MEAs that deal with specific categories of chemicals (Montreal and Stockholm) and have dedicated financial instruments have advanced more in terms of implementation in many African countries.
Despite conventions (Bamako and Basel), illegal trafficking remains a problem, as evidenced by recent chemical accidents (e.g. Côte d’Ivoire). Border control authorities are inadequately staffed, or staff is inadequately trained to effectively inspect chemicals movements across borders. In some cases, the authority of border controls is often overruled for political or other motives. In this regard, there is need for active collaboration between international and national inspection authorities.

While the beneficial impacts of technical and financial support for implementation of the various MEAs is recognized, this has unfortunately not always contributed to national capacity building. Greater involvement of national authorities and stakeholders in the design, implementation and evaluation of technical cooperation projects would be desirable.

(c) Developing SAICM

Many African countries appreciate the integrated approach provided by SAICM and have embarked on its implementation, including through Quick Start Projects. It is however recognized that the scope and longevity of support through the QSP is in many countries insufficient to kick-start implementation.

Consideration should also be given to developing appropriate guidelines for SAICM implementation, taking due consideration of nationally existing policies, institutions and chemicals use profile.

More emphasis should be placed on developing appropriate formal institutional mechanisms and governance of SAICM implementation at national and sub-regional levels, including involvement of major stakeholders in technical assistance provided for implementation of SAICM.

(d) Encouraging partnerships, including regional coordination and cooperation

There is in principle, good potential for cooperation and coordination at the sub-regional level, but implementation support for MEAs and other technical assistance is typically directed at the national level, and therefore not conducive to achieving regional synergies.

More support is needed to foster involvement and cooperation of the private sector, in the implementation of environmentally sound chemicals management. The private sector has to accept its responsibilities, and the public sector needs to develop mechanisms and capacities to work more collaboratively with user groups in the private sector and civil society.

(e) Coherent information on chemicals

No significant progress has been made with national pollutant and transfer registers.

The four African pilot countries (South Africa, Senegal, Nigeria and The Gambia) have made good progress with implementation of the global harmonized system in particular in the upstream chemicals. Challenges remain in the more informal downstream sector dominated by small and often unorganized businesses.
Cooperation in the development and transfer of technology of safe substitutes and in the development of capacity for their production

- Progress in defining national, subregional, regional and international best available technologies/safe chemical alternatives has been too slow to address the chemicals management challenges of Africa. Some countries have made good progress in particular in Integrated Pest Management Practices. New initiatives are particularly needed to make best available technologies appropriate and affordable to African nations.

Output 3: Summary Policy Statement (inputs to the working document for the RIM statement)

Major trends and emerging Issues

More and more African countries are importing chemicals and products containing chemicals, due to, *inter alia*, trade liberalization and creation of free trade industrial zones. Of particular concern is the inability of many African countries to assess and monitor the risks associated with trade in chemicals, and chemicals contained in products, leading to concerns about the importation of chemicals that are banned in industrialized countries.

Chemical and petroleum industries account for between 3 to 42 per cent of the GDP in African countries. Apart from the major oil exporting countries (Angola, Nigeria, Libya, Egypt and Sudan; and emerging in Ghana and Uganda), the chemical industry in Africa, constitutes a small share of GDP.

Africa with its growing population is in urgent need of increasing agricultural production (for food and in some cases biofuels) and industrialization. This will undoubtedly increase use of key chemicals, including fertilizers and pesticides.

Africa is prone to insect borne diseases, particularly malaria and insect-borne plant pests. These threats are likely to increase with climate change, which is already becoming evident, hence, the increasing need to use more chemicals, to control insects and prevent insect-borne diseases.

There is a trend towards urbanization across Africa that is predicted to continue into the future. The increasing rate of urbanization will increase reliance on household chemicals.

Cheap labor, resources and weak environmental management capacities, provide an economic opportunity for relocation of some industries from industrialized countries to Africa (*e.g.* tanneries, battery manufacturing, etc.). While the contribution to economic development and employment generation is welcomed; there are concerns about the environmental and human health impacts of such industries.

Access to safe drinking water and sanitation is still low in most parts of Africa. Of particular concern is the impact of the discharge of chemicals in water bodies, thus posing risks to communities that rely on untreated water. Resolving this is an urgent development need, but will undoubtedly also increase the demand for chemicals for *e.g.* water treatment etc.

The handling of chemicals (including transport and use) pose significant occupational health and safety risks, as well as community environmental health risks.
Access to energy is still low in most parts of Africa. Power generation is still largely dependent on fossil fuels complemented by mostly inefficient diesel generators. These are major sources of chemical discharge into the environment.

Given their polluting nature, the growing import and use of two-stroke engines in many parts of Africa is a concern.

In order to capture opportunities for trade with industrialized countries, African countries will have to implement environmentally sound management of chemicals, as overseas buyers increasingly demand evidence of sound management of chemicals, in part, as a result of chemicals-based legislation coming into force in e.g. the EU (REACH).

Around the continent, there is a trend towards subregional and regional integration, which demands increasing harmonization of policies and strategies for environmentally sound management of chemicals. The institutions (such as Secretariat for the New Partnership for Africa’s Development (NEPAD), African Union Commission (AUC), African Ministerial Conference on the Environment (AMCEN), African Ministerial Council on Health (AMCHE), and African Ministerial Council on Water (AMCOW).) that contribute to this integration, could potentially contribute to strengthening policy and strategies, as well as their implementation and enforcement for environmentally sound management of chemicals.

**Implementation progress and achievements /best practice**

Most African countries have ratified and have started implementing the major MEAs related to environmentally sound management of chemicals.

Larger and/or transnational corporations have started improving their environmentally sound management of chemicals on a voluntary basis. However, the small and medium sized enterprises are yet to follow suit.

Most African countries have created policies and legislation for chemicals use in different sectors (agriculture, health etc). However, the sectoral approach has not been conducive to adopting a life cycle approach, to minimize risks from chemicals manufacture or import, to use and final disposal.

Government and other stakeholders have only carried out a few awareness raising activities on safe chemicals management practices.

Environmentally sound management of chemicals provides an opportunity for capturing indigenous knowledge in different sectors, including integrated pest management.

**Current and future implementation challenges and constraints**

Awareness of possible risks posed by chemicals is still low among major segments of the African population. This is further complicated by the general lack of reliable data and information on the toxicity and safe use of chemicals. Access to such information in local language is key to improving environmentally sound management of chemicals.
African countries will have to harmonize their trade and environmental policies, in particular on chemicals management, to be able to enhance access to markets in industrialized countries. A particular opportunity could exist for supplying environmentally sound goods and services (e.g. organic produce) into niche (inter)national markets.

Most African countries still lack the institutions and facilities to monitor key chemicals in the environment, and hence develop appropriate control strategies to prevent adverse impacts on human health and the environment. The positive contribution of UNEP’s African regional centers for chemical analysis and data generation is acknowledged.

Access to appropriate and affordable environmentally sound technologies and safe chemical substitutes remain very low throughout Africa.

Africa has the opportunity to add value to its rich natural resources. This would however increase the use of chemicals and therefore require strong policies.

**Lessons learned and recommended priority policy measures and actions to accelerate implementation**

More support is needed for accessing environmentally sound technologies and safe chemicals. It is recognized that institutions of higher education, as well as technical and research institutions could play a significant role in adapting and replicating environmentally sound technologies.

Environmentally sound management of chemicals should be integrated into national policies for economic growth and poverty reduction. Mechanisms need to be established to ensure safe chemicals management and use, which should be promoted as an integral part of agricultural modernization and sustainable industrial development.

There is an urgent need for an integrated approach in implementing MEAs and other international regimes to support African countries improve environmentally sound management of chemicals. Compartmentalized MEAs have led to fragmented and sectoral implementation, which has become a challenge for national coordination and addressing national chemicals’ management priorities.

The ongoing trend toward subregional and regional integration provides an opportunity for harmonization of policies, regulations and best practices for environmentally sound management of chemicals.

There is an urgent need to invest in facilities and institutions for monitoring and evaluating key chemicals in the environment as a basis for national, subregional and regional priority setting for chemicals management. This needs to be accompanied by proper mechanisms for information exchange among African countries, building upon existing initiatives like PAN and CIEN (chemical information exchange network).

Greater emphasis should be given to the involvement of the private sector, civil society, farmers and community groups, research and education institutions (including also cleaner production centers or related service providers), in the design and implementation of chemicals management policies and strategies.
Progress towards more environmentally sound management of chemicals in Africa is critically dependent on long-term international support for human and institutional capacity building, transfer and dissemination of environmentally sound technology and safe chemicals and access to adequate finance in an integrated manner that responds to the specific national and regional needs and priorities of African countries.

The international community should support the definition of and access to locally appropriate and affordable environmentally sound technologies and safe chemicals.

**Conclusions including what Africa expects from the international community**

Africa expects:

Continuous international support for sustainable industrial development/green industry/green economy;

To achieve its commitments under the JPOI and MDGs with the support of international development partners;

To develop its human, institutional and technical capacities to achieve environmentally sound management of chemicals;

Both sectoral and inter-sectoral collaboration with its development partners to improve the environmentally sound management of chemical; and

That the environmentally sound management of chemicals will become an integrated element of the financial, technical and other support provided by its development partners, including under the Monterrey agreement.

Further:

Africa stands to benefit from enhanced compliance with MEAs, in particular through developed countries banning and preventing the trade and/or transfer of obsolete technologies and hazardous wastes and chemicals. In addition, African countries call upon their development partners to assist with capacity development for them to better control and enforce such trades and transfers.

Africa recognizes that its capacity to effectively participate and engage in negotiations on international chemicals and environmental agreements is limited and expresses its concern that as a result thereof, the development needs and priorities of Africa may not have been addressed properly. This is further complicated by the proliferation of meetings under the various MEAs.
Annex 3: Outputs of the breakout group on chemicals and waste management: review of the draft report on waste management

Output 1: Comments on the draft country reports on chemicals

Egypt

The report should:

- Include case studies;
- Cover enhancing stakeholders (public, private, NGOs) participation and their cooperation;
- Discuss the importance of public awareness;
- Cover institutions in charge of waste management;
- Highlight the paramount importance of international cooperation on hazardous waste; and
- Include a section on the implementation of international commitments.

Kenya

The report should:

- Include quantitative and detailed data and information;
- Include boxes on best practices on waste scavengers (waste collectors) in as they relate to socio-economic implications and impacts on their livelihood;
- Have a wider scope and cover other types of waste; and
- Analyse the impact of economic incentives (taxation or ban of production and/or importation) on waste management.

Zambia

The report should cover mining waste, waste recycling and heavy metals, as well as waste management.

Output 2: Conclusions on implementation progress

(a) Prevent and minimize waste and maximize reuse, recycling and use of environmentally sound alternative materials, with the participation of government authorities and all stakeholders. Among others: encouraging production of reusable consumer goods and biodegradable products and developing the infrastructure required

- Many African countries have recycling initiatives, especially for paper, PET/plastics, scrap metals and glass. Progress has been made towards formalizing waste recycling in some countries, mostly for industrial waste, but also for municipal waste.
- Salvaging recyclable and reusable items from dump sites and waste collection points has, and continues to be a source of livelihood for the urban poor.
Several African countries have started to use organic wastes for composting and biogas generation, and this trend is expected to increase. A particularly promising opportunity is the use of agro-residues for energy generation (e.g. “bagasse”, straw, sawdust, cotton husks, coffee husks etc.), and the application of advanced small scale digesters to produce biogas, fertilizer and/or animal feed.

Research and development on biodegradable products is ongoing in a few African universities (e.g. University of Ghana), but none has been commercialized to date.

National Cleaner Production Centers and some other Initiatives are working with industries and other organizations to reduce their waste generation.

The declining availability of landfill space in particular, close to urban areas, is starting to provide an incentive for waste reduction initiatives.

Some countries have adopted policies to encourage the development of national recycling industries, including for example, through export duties on recyclable materials (e.g. Egypt).

Many countries have started to use waste materials (e.g. demolition waste) as aggregate for the production of construction materials (e.g. bricks, tiles etc.)

Production of ethanol from some organic wastes (e.g. molasses) is widespread, and further opportunities are available for other organic wastes (e.g. rice straw) and CO2 recovery from ethanol production.

Some countries have started banning the use of specific disposable products, mostly the use of thin film plastic bags.

There is growing concern about the management of large volume mining wastes (including tailings, slags), and their potential impacts.

The continued discharge of sanitary waste into water bodies continues to pose serious environmental and health risks in many places in Africa. Access to adequate sanitation and potable water in rural areas is far less than in urban areas.

(b) Develop waste management systems and extend waste service coverage. Among others develop and promote integrated management solutions to minimize urban and industrial waste generation and to promote recycling and reuse

Most African countries have some legislation in regard to waste management, and several have started with integrated waste management strategies to overcome traditional sector approaches.

Progress in improving waste management systems and extending waste service coverage across Africa remains slow due to serious capacity, technical and financial constraints.

Many countries have specific legislation for hazardous waste (including health/medical wastes), and some progress is being made in creating appropriate facilities for treatment (including for example, incinerators for hospitals and secure landfill). However, the capacity to manage hazardous waste is limited, leading to widespread disposal of hazardous waste with municipal waste in uncontrolled dump sites.

Some existing landfills have implemented landfill gas collection and composting, and this has in some cases been co-funded with carbon credits (Clean Development Mechanism).
Africa still almost exclusively relies on land disposal of wastes, and whilst standards are being adopted for sanitary landfills, most dump sites are not able to meet environmental standards and thereby create a future liability for society and the environment.

Public private partnerships are being encouraged as a mechanism for implementing integrated waste management systems.

Systems for segregation and sorting of municipal wastes at source are not widely available, and recovery of recyclables therefore depends on scavenging at dump sites. While scavenging provides a livelihood for the urban poor, it also poses health risks.

Improving efficiency of recovery and recycling of recyclable materials is critically dependent on further organization and formalization of the recycling and waste management sectors. This would also improve the status of recycling and hence acceptance of waste recycling.

(c) Ratification and implementation of relevant international instruments on hazardous waste including the Bamako Convention, the fourth Lome Convention and the Basel Convention and its protocol on liability and compensation for damage resulting from the trans-boundary movement and disposal of hazardous waste.

Most African countries have ratified the relevant international instruments for hazardous waste (including Basel and Bamako) and are at different stages of developing and implementing nation action plans.

The absence of specific financial instruments and other means of implementation to complement the Regional Centers under the Basel convention have hindered full implementation of the Basel convention.

By September 2007, only 23 countries had ratified the Bamako Convention. The Convention prohibits the import of hazardous materials into Africa, but lacks means of implementation and so far no conference of parties has taken place.

The Protocol on liability and compensation for damages under the Basel Convention is still under discussion among the Parties.

The Lome Convention (now known as Cotonou Agreement) is in place, but has effectively superseded by more recent international agreements, including the Basel convention.

Most African countries still need to prepare inventories of hazardous wastes and sites potentially affected through inappropriate disposal of hazardous wastes.

(d) Preventing international illegal trafficking of hazardous wastes and to prevent damage resulting from the trans-boundary movement and disposal of hazardous wastes in a manner consistent with obligations under relevant international instruments.

Management of trans-boundary movement of hazardous waste, including illegal trafficking is now governed by the Basel and related conventions, which have been ratified and are being implemented across Africa. There is however a need to strengthen trans-border controls and policing of waste transports. Revenue authorities should also be involved in the implementation of these agreements.
There is widespread and growing concern about the growing importation of used consumer goods that contain hazardous materials (e.g. electronic and electric products, cars, medical equipment, pharmaceuticals etc.). The ultimate disposal of these hazardous materials, poses serious environmental and health concerns. Some countries have the importation of used consumer goods.

(e) Global and regional cooperation, including exchange of information and experience and transfer of appropriate technologies to improve the management of radioactive wastes

- There is an urgent need to improve the exchange of information on radioactive wastes, including volumes, best practices and storage methods. The IAEA needs to cooperate more actively with African countries on the minimization and management of radioactive waste.
- It is expected that nuclear energy might be adopted on a wider scale in Africa in the near future. The management of radioactive wastes of such facilities should be planned as an integral part of developing the energy mix.
- Mining of various minerals is widespread around Africa. The management of radio-nuclides mined either intentionally (uranium) or as by-product (e.g. gold, cobalt etc) is of concern.
- Most African countries import products containing radioactive materials (e.g. medical applications) and the management of the resulting waste is a concern.

(f) Support the clean up of sites contaminated as a result of all types of nuclear activity and to conduct health studies in the regions around those sites as appropriate with a view to identifying where health treatment may be needed and should be provided

There is a need to:

- Comprehensively identify sites that potentially have been contaminated with radioactive wastes in Africa;
- Manage radioactive waste in a sound manner including: sound storage, transportation, trans-boundary movement and disposal of radioactive wastes guided by all the principles of the Rio Declaration on Environment and Development and Agenda 21;
- Provide technical assistance to African countries to enable them develop or improve procedures for management and safe disposal of radio-active wastes
- Intensify safety measures with regard to radio-active wastes

And, it should be noted that while African countries acknowledge the importance of sound management of radioactive wastes, the capacity to do so remains still very low across Africa, as only few countries (e.g. Egypt) have given priority to develop and implement comprehensive radioactive waste management systems.
**Output 3:** *Summary Policy Statement (inputs to the working document for the RIM statement)*

**Major trends and emerging Issues**

Poor waste management practices in particular, the widespread dumping of wastes in water bodies and uncontrolled dump sites, aggravate problems of generally low sanitation levels across the African continent.

Urbanization is on the rise in Africa and this trend is expected to continue into the future. Of concern is the fact that infrastructure and land use planning, including for waste management is not coping with the growth rate of urban areas (around 3.5% annually, highest in the world). This is particularly urgent in slum areas, which constitute a big part of many of the cities and towns in Africa.

Waste management infrastructure is largely non existent in rural areas of Africa. Improvements in infrastructure are urgently needed to combat the high costs to health services, thereby contributing to alleviating poverty, and reducing rural-urban migration.

The gap between waste management policy and legislation and actual waste management practices is widening, due to ongoing capacity constraints or non-existent waste management facilities to cater to the different waste streams. Resolving this capacity gap will require major investments and access to technical know how. Means to accessing these are far-reaching.

Waste generation is expected to increase significantly as a result of industrialization, urbanization and modernization of agriculture in Africa. This will further aggravate the currently-existing capacity constraints in waste management.

The fast growing use of ICT and rapid turn-over in technology (particularly computers, mobile phones etc.) creates a growing e-waste stream for which there is no waste management capacity, leading to co-disposal of e-waste with municipal wastes in dump sites.

The changing lifestyles and consumption patterns of in particular, the growing urban middle class is increasing the complexity and composition of waste streams in Africa.

**Implementation progress and achievements /best practice**

Progress has been made in waste management policies and strategies. However, the use of economic instruments and implementation of polluter pays principles in waste management has not yet matured in most African countries.

Biogas and compost production from organic waste fractions have been widely accepted in Africa as best practice, and progress is being made in developing and implementing specific projects in various countries.

Energy production from agricultural residues (including co-generation) is increasingly being accepted as best practice, and several projects have been implemented, some of these with co-funding on basis of carbon credits e.g. the clean development mechanism (CDM).
Some countries have refurbishment centers for used ICT equipment, which serve to extend the useful life of the products.

Resource Efficient and Cleaner Production is being promoted as best practice for reducing wastes from businesses and other organizations.

**Current and future implementation challenges and constraints**

The single largest implementation challenge remains to create sufficient capacity for environmentally sound management, including where appropriate, recovery and recycling of various waste streams across Africa. Progress towards its realization is constrained by access to finance and technical know how.

Current by-laws in most places in Africa, vests responsibility for waste management in municipalities, which are insufficiently equipped to deal with collection and disposal. Therefore, such by-laws now constitute an impediment to investment in waste management by the private sector.

Importation of second hand consumer goods and production and/or import of substandard products all contribute to rapid increase in waste generation. Policies should be put in place and existing standards enforced to reverse this trend.

Implementation and enforcement of waste regulations and conventions are severely constrained by the lack of good governance and transparency, and in some cases, the prevalence of corruption.

Inadequate or limited awareness and appreciation of best practices for environmentally sound management of wastes is a major constraint, and a paradigm shift among communities and society at large, is needed.

**Lessons learned and recommended priority policy measures and actions to accelerate implementation**

To be extracted from the conclusions etc of output 2 on this theme.

**Conclusions including what Africa expects from the international community**

The scale of investments needed for proper sanitation and environmentally sound management of wastes is beyond the capacity of African countries. Therefore, the international community is called upon to support transfer and dissemination of knowledge and technology and foster investments in best practices for environmentally sound management of various waste streams within the African continent.

The international community should implement the relevant international agreements/conventions on waste management (particularly Bamako, Basel and Cotonou) and provide assistance to African countries to strengthen their human and institutional capacities for implementation and enforcement (especially for control of imports and exports of wastes and waste-containing products into and within the region).
The international community should conclude as a matter of urgency, the negotiations and ratification of a protocol on liability and compensation for damages under the Basel convention.

Specific assistance is needed to establish proper inventories of hazardous and radio-active wastes and sites potentially affected by poor management of such wastes, as a basis for developing and implementing facilities for their management and for clean up of contaminated sites.

The international community is called upon to assist with awareness and attitudinal changes programs for integrated waste management.
Annex 4: Outputs of the breakout group on mining

Output 1: Comments on the draft report

The report should:

- Explore and incorporate a detailed analysis of inter-sectoral linkages between mining and other sectors (such as energy, infrastructure, agriculture, etc), which are largely missing;
- In addition to linking mining with royalties, address the issue of disasters, which is a growing concern;
- Examine and justify the statement "Mining didn’t contribute to Africa’s economy well";
- Address the issue of linkages between primary and secondary metal production and the issue of waste;
- Address the issue of 'power balance' in negotiation and decision making in mining contracts negotiations between large multinational companies and host governments; and
- Be restructured in accordance with the outline indicated in the box below.

<table>
<thead>
<tr>
<th>1.0</th>
<th>INTRODUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Background</td>
</tr>
<tr>
<td></td>
<td>(Current CSD background and mandates)</td>
</tr>
<tr>
<td>1.2</td>
<td>Importance of Mining to Africa</td>
</tr>
<tr>
<td></td>
<td>Mineral abundance of Africa: also current section 2.1</td>
</tr>
<tr>
<td></td>
<td>African mining vision and further development of the sector, sustainable development and mining</td>
</tr>
<tr>
<td>1.3</td>
<td>Purpose and Basis of the Review</td>
</tr>
<tr>
<td></td>
<td>JPOI summary of key areas for review; suggestions</td>
</tr>
<tr>
<td></td>
<td>• Effective and transparent regulatory frameworks</td>
</tr>
<tr>
<td></td>
<td>• Transparency and accountability</td>
</tr>
<tr>
<td></td>
<td>• Governance and public participation</td>
</tr>
<tr>
<td></td>
<td>• Environmental, economic, social and health impacts and benefits</td>
</tr>
<tr>
<td></td>
<td>• Value addition, R&amp;D and technological information</td>
</tr>
<tr>
<td></td>
<td>• Artisanal and small scale mining</td>
</tr>
<tr>
<td></td>
<td>• Building human and institutional capacities</td>
</tr>
<tr>
<td>1.4</td>
<td>Methodology and Scope of the Review</td>
</tr>
<tr>
<td>1.5</td>
<td>Structure of the report</td>
</tr>
</tbody>
</table>

2.0 MAJOR TRENDS AND EMERGING ISSUES
Review of current trends in key areas under review using subheadings above

3.0 REVIEW OF PROGRESS AND ACHIEVEMENTS
- National Level
- Subregional level
- Regional level

4.0 CHALLENGES AND CONSTRAINTS

5.0 LESSONS LEARNED

6.0 CONCLUSIONS

Specifically, the report should address the following comments on selected sections.

Background

The report should:
• Be written bearing in mind the target audience;
• Include an analysis of the pillars of sustainable development in the context of mining.
• Include an analysis of the relative importance of mining to African economies;
• In its analysis, take into account that mineral resources are finite and cannot be exploited in accordance with traditional sustainable development principles;
• Must emphasize that mining can be an important engine of growth and economic development in Africa, and in this regard, address sustainability issues in mining in the context of social and economic benefits that can accrue to national and regional economies, when undertaken in an environmentally sustainable manner;
• Include tabular presentations of statistical data on resources, reserves and importance of mining to the economy, in order to support the narrative parts of the report with facts and figures;
• Better highlight the inter-linkages between mining and other economic sectors such as agriculture, forestry, tourism and value addition, taking into account vertical and horizontal streams;
• Should integrate the concept of 'sustainable consumption and production' especially in the light of declining ore grades and the attendant increase in energy requirements, as well as underscore linkages between primary and secondary ores;
• Include a section on energy, minerals and mining;
• Include more national level activities from country reports and surveys; and
• Integrate relevant aspects of the Africa Mining Vision into the report.

**Major Trends and Emerging Issues**

The report should:

• Reflect the recommendations and conclusions of the EGM and inputs on regional experiences as best practice;
• Provide an account of service delivery gaps within governments; and
• Be more detailed and critical in its discussion of minerals sector development reforms. For example, the reforms of the 1980 - 90s were World Bank driven and focused on Trans-National Companies (TNCs) with minimal government or community participation consultation processes. Contrast with current initiatives which are focused on ensuring the sector contributes to sustainable development.

**Review of Progress and Achievements**

• The report should reflect the inputs provided by the meeting and incorporate national as well sub regional achievements and challenges.

**Output 2: Inputs to the working document for the RIM statement to CSD 18 and 19**

**Major trends and emerging Issues**

• Since WSSD, there has been a dramatic increase in the global intensity of the use of metals due to higher consumption patterns. This is unlikely to go down, despite the recent drop in commodity prices, and is attributed to robust demand from growing Asian economies such as China and India.
Overall, improvement in the stability of the political and economic environment on the continent has led to an increased investment in the minerals sector in Africa, but very limited or no investment in the minerals linkage sectors (up, down, and side-stream industries).

There is a realization that the minerals sector could be a key instrument in establishing infrastructure for the development of other sectors such as agriculture and forestry through the provision of requisite infrastructure i.e. transport, energy and water. This is embodied in the NEPAD Spatial Development Programme (SDP) and the African Mining Vision.

Emerging trends and sustainable development issues addressing the inter-linkages between the environmental, economic, social and health impacts and benefits of mining are important. In this regard, there is need to employ tools such as Environmental and Social Impact Assessments (ESIA), which go beyond the traditional Environmental Impact Assessments (EIA) and are being promoted through a number of initiatives, including those of the AU, ICMM and Equator Principles.

Emerging trends in implementation of effective and transparent regulatory frameworks may have influenced, up till recently, by high commodity prices, resulting in countries seeking improvement of contracts, transparency and accountability in revenue sharing and use.

Countries are also keenly, though prudently, taking a harmonised approach in re-drafting their mining codes/policies at sub-regional and regional levels.

As regards governance and broad based and/or public participation, the following are some of the important emergent trends: increase in programmes towards enhancing indigenous participation in ownership e.g. South Africa’s Black Economic Empowerment (BEE); increased gender awareness and programmes towards enhancing female involvement in mining and mine ownership and programmes on promoting greater community participation in the minerals extraction lifecycle. In addition, consultations are moving away from company-driven approaches to broad based consultations with grassroots communities having a larger say in the extraction of the resource and the management of benefits.

Environmental and social requirements are increasingly being integrated into countries’ mining legislation, including environmental and social funds. Countries have also started talking, more seriously, about CSR and how this needs to be entrenched as a requirement.

Countries have made efforts to domesticate international initiatives, eg EITI to strengthen enforcement and compliance

The realization of the importance of ASM as a viable economic activity with potential to contribute to economic development has grown leading to the evolution of appropriate policies and programmes to support the sector in some countries.

Implementation progress and achievements (including best practices)

Emerging trends in implementation of effective and transparent regulatory frameworks may have influenced, up till recently, by high commodity prices, resulting in countries seeking improvement of contracts, transparency and accountability in revenue sharing and use.

Countries are also keenly, though prudently, taking a harmonised approach in re-drafting their mining codes/policies at sub-regional and regional levels.

As regards governance and broad based and/or public participation, the following are some of the important emergent trends: increase in programmes towards enhancing indigenous participation in ownership e.g. South Africa’s Black Economic Empowerment (BEE); increased gender awareness and programmes towards enhancing female involvement in mining and mine ownership and programmes on promoting greater community participation in the minerals extraction lifecycle. In addition, consultations are moving away from company-driven approaches to broad based consultations with grassroots communities having a larger say in the extraction of the resource and the management of benefits.

Environmental and social requirements are increasingly being integrated into countries’ mining legislation, including environmental and social funds. Countries have also started talking, more seriously, about CSR and how this needs to be entrenched as a requirement.

Countries have made efforts to domesticate international initiatives, eg EITI to strengthen enforcement and compliance

The realization of the importance of ASM as a viable economic activity with potential to contribute to economic development has grown leading to the evolution of appropriate policies and programmes to support the sector in some countries.

Current and future implementation challenges and constraints
Mineral regimes are yet to create equitable and sustainable mineral wealth from an integrated and diversified minerals industry, integrated into the local and regional economy through optimized linkages without compromising other forms of land use and environmental, social and cultural considerations. There is inconsistency in the existence and/or application of instruments and systems to ensure the effective participation of impacted communities and other stakeholders.

The lack of venture capital for African entrepreneurs to invest in the mineral sector usually brings about a challenge to balance and manage conflicting local, sub-national and national level concerns and interests when investors are foreign, including deciding what form the allocation should take to promote growth and development.

Governance systems are not effective in addressing rent-seeking tendencies and corruption, and ensuring transparency and accountability. Popularizing and broadening the adoption and application of international standards, conventions and toolkits resulting from initiatives like KPCS, EITI, EITI++ and ICMM is still at an infant stage.

Failure by countries to overcome the financing constraints of large mineral infrastructure through Private Public Partnerships (PPPs) and the grouping of infrastructure users to achieve economies of scale via integrated development corridors is a key challenge.

Finding resources for the effective functioning of continental partnerships/initiatives such as the African Mining Partnership (AMP), Intergovernmental forums, African Union Commission-International Study Group (AUC-ISG) to Review Africa’s Mineral regimes, UNCTAD-African Mining Network (UNCTAD-AMN), AfDB-African Legal Support Facility, NEPAD-Spatial Development Programme, is a challenge.

There is perennial lack of sustainable energy sources to cater to the increasing demands from the mining sector.

Lessons learned and recommended priority policy measures and actions to accelerate implementation

On value addition:

- Research and development (R&D) and technological information are areas in which the mining sector has traditionally been found wanting. However, there has been an increase in the use of R&D, scientific knowledge and technological information in some countries. Yet more needs to be done to enhance linkages.
- Increased commodity demand has led to an increase in the export of ores and concentrates, more value addition should be promoted through appropriate incentives.
- There is a move towards development-oriented mineral policies, including instruments to increase value addition.
- There is increased awareness that value addition encompasses more than mineral processing, but also includes all aspects of the mineral value chain, including local inputs and services to the mineral sector.

On building human and institutional capacities:

- There has been an up-scaling of academic, as well as on-the-job-training through short term attachments and workshops for regulators in the mining cadastre, geosciences and the management and regulation of mining activities and revenues.
There has also been a shift from programme funding to budget support to provide flexibility to adapt support to local circumstances. This is in response to trends in development co-operation favoring ownership, coordination and alignment both at national and regional levels.
Annex 5: Outputs of the break out session on transport

Output 1: Comments on the draft report

The report should:

- Address the issue of women and transport. Uganda provides a good example of a country promoting gender-sensitive transport system. The country issued a policy statement in 2008, spelling out government commitment in this area. The policy is supported by guidelines to facilitate implementation;
- Emphasize the link between transport and the environment, particularly waste generation. Uganda is an example of a country giving serious attention to this issue. The country is in the process of introducing Bus Rapid Transit (BRT), a transport system that indirectly reduces pollution. BRT has an added advantage of minimizing pollution through reduced number of vehicles. However, the fact that more than 90 percent of goods are still transported by road, calls for the promotion of more environmentally friendly modes of transport;
- Address the issues of road safety, particularly the risks associated with the construction of transport infrastructure;
- Emphasize the issue of public private partnerships (PPP);
- Bring out issues related to the introduction of standards and guidelines for different modes of transport;
- Demonstrate the importance of integrating transport and infrastructure development into land use plans;
- Discuss the issue of full liberalization and its implication on the labor sector;
- Discuss new opportunities for financing the transport sector such as Aid-For-Trade (AFT) and in particular, in the context trade-related capacity building. For example, donors have pledged US$1.5 billion for the north-south corridor. Notwithstanding, the report must also note that in some cases, donors are not fulfilling their promises;
- Emphasize AICD among the major strategies discussed, as Africa needs to catch up with the rest of the world in terms of transport development;
- Discuss the link between transport and other sectors. This is addressed in the NEPAD Spatial Development Programme;
- In relation to financing, mention the emerging trend of funding by Islamic Banks, and China. In addition, contributions from different sources could be presented in a tabular format;
- Discuss motor cycles as important means of urban transport. These motor cycles pollute the environment and complicate urban planning. These facts should be presented in a box;
- Reduce the reference to SSATP, given that it is going to be presented to an audience which includes non-SSATP countries;
- Approach its discussion on privatization, including privatization of railway transport with caution. It should note that market interventions could challenge both PPPs and privatization;
- Make reference to the current economic crisis and its implications for Africa, including in the transport sector;
- Adequately address maritime transport; and
Major trends and emerging issues

The link between transport and other economic and social sectors relevant to achieving the MDGs in Africa has been defined by the AU Summit, which set targets for the transport sector for each of the eight MDGs. Transport has a role in facilitating the movement of goods and services, as well as in ensuring access to educational and health facilities, agricultural inputs and outputs, industrial raw materials and manufactured goods and minerals, which in turn plays important roles in the achievement of the MDGs. Transport thus plays a critical role in poverty eradication and sustainable development.

Roads: A look at the different transport sub-sectors reveals that Africa had about 2.06 million km of roads in 2001, which accounts 80 percent for goods and 90 percent for the passenger traffic within the continent. Significant efforts are underway in a number of African countries to expand, improve and maintain road networks and to address non-tariff barriers to trade and road transport through a corridor approach.

Africa has the highest road traffic accidents per capita. Road traffic accidents kill 1.2 million people in the world, 19 percent on African roads. To curb the worsening situation in relation to road accidents, regulations and enforcement measures are being undertaken by most countries.

Aging road vehicles, including motorcycles are rapidly increasing in most African countries, resulting in serious congestion, increasing local air pollution, greenhouse gas emissions and increase in waste generation. Clean vehicles and clean energy programmes are being implemented in some countries with support from UNEP through the partnership for clean fuels and vehicles (PCFV).

Railways: Although it is well recognized that railways are cost-effective and relatively environmentally friendly means of transport, the existing railway infrastructure in Africa is far from adequate. In addition to the low network connectivity, the railways in Africa, with the exception of North Africa, have a low level of traffic. Overall, the railways in Africa carry only 1 percent of the global railway passenger traffic and 2 percent of the goods traffic.

Africa had a railway network of 90,320 km in 2005 - most of which is disjointed and some not operational. A number countries have signed concessions on railways transport with the aim of improving operational performance, but with mixed results.

Maritime: Maritime transport carries over 92 percent of Africa’s external trade. Africa has a coastline of 30,725 km with 90 major ports. Africa’s port productivity is low compared to the rest of the world. It is estimated that the average productivity in African ports is about 30 percent of international norm. African ports handle only 6 percent of global traffic. Efforts are underway to increase the capacity of ports to enable them accommodate bigger ships, the growth in containerization and improving hinterland connections.
Inland waterways: Africa is endowed with a number of rivers and lakes that have great potential of being inexpensive, energy-efficient and environmentally-friendly. Twenty-nine African countries have navigable water bodies, of which only a small number are well developed for transport services. There are initiatives on the maintenance of roads and terminals and improvement of safety and security of the inland waterways.

Air transport: Africa had over 4,000 airports and airfields in 2007, only 20 percent had paved runways. A significant number of these airports do not meet ICAO standards and recommended practices. Only 117 airports are classified as international airports. The continent’s global air transport share was 5.2 percent of the passenger traffic and 3.6 percent of freight in 2006.

Africa’s aircraft fleet average age is 20 years compared to 12, 9, and 7 years of North America, Europe and Asia respectively. African Airlines are also characterized by a relatively small fleet of mainly medium-sized aircrafts. This makes Africa less fuel efficient and less environmentally friendly.

Some African countries are moving to Public Private Partnership (PPP) in the ownership of airlines. African countries are also increasing the share of their GDP for development of transport infrastructure. However, given the significant financing requirement for the transport sector (14.2 billion), there is need to mobilize resources from all sources.

Implementation progress and achievements made

In recognition of the critical role that the transport sector plays in sustainable development, A21, PFIA21 and JPOI have set out measures that need to be taken to ensure that the sector contributes to sustainable development.

Africa has registered significant developments in the way goods and services are moved from one place to another. Major efforts of varying degrees have been made in different countries during the past decades to transform the traditional mode of transport into one based on motorized technology. Significant transport infrastructure development, including roads, railways, airports and seaports has also taken place. However, the region is still lagging behind.

The African Ministers responsible for Transport and Infrastructure (2005) adopted a declaration, with a view to expediting transport contributions to the implementation of the MDGs, which also promotes environmental sustainability in all transport operations and development programs.

Integration of transport sector strategies into poverty reduction goals through the Poverty Reduction and Transport Strategy Review (PRTSR) is underway in over thirty African countries under SSATP.

To ensure integrated development of Africa’s infrastructure and avoid duplication of efforts, AUC, AfDB and the NEPAD Secretariat have embarked on a joint initiative known as ‘Program for Infrastructure Development in Africa’ (PIDA).

There has been a number of regional and sub-regional meetings that have resulted in many declarations and resolutions and plans of action aimed at developing and improving the
operations of transport in Africa. These include: Abuja Declaration (February 2007) for effective revitalization of maritime transport in Africa, as a key component of an African socio-economic development policy” and the associated Plan of Action on Maritime Transport of Africa; Addis Ababa Resolution (2007) on the creation of the Executing Agency of the Yamoussoukro Decision as well as a Plan of Action on Air Transport (2007-2010) to accelerate the liberalization of air transport in Africa; Brazzaville Declaration (2006) and a Plan of Action on African Railways with a view to revitalizing rail transport; Accra Declaration (2007) on road safety, which calls upon developed countries to recognize the urgent need to improve road safety in Africa and systematically include road safety in their cooperation programs.

The Universal Safety Oversight Audit Program (USOAP) under ICAO was conducted to enhance air transport safety. The Ministers (2006) reviewed the Directors of Civil Aviation action plan aimed at strengthening their capabilities with respect to safety oversight, particularly in the areas of licensing, airworthiness and the operation of aircraft.

In Central, Eastern, Southern and West Africa, inter-state conventions and protocols have been adopted, many of which are being implemented. With respect to transport facilitation in Africa, a multitude of international and bilateral agreements and protocols aimed at simplifying and harmonizing trade and transport between states have been signed.

As regards the implementation of commitments in relation to phasing-out leaded gasoline, all but only two African countries (Algeria and Tunisia) had phased out leaded gasoline by the end of 2008. Countries are also reducing sulphur levels in diesel fuels and by introducing cleaner vehicle regulations, particularly age limitation.

Measures have been undertaken to establish and restructure Road Agencies and Road Funds, as well as to enhance the capacity of local governments at village and district levels to effectively coordinate rural transport infrastructure and services.

With regard to the development of more energy-efficient mass transit systems, a public transport system known as Bus Rapid Transit (BRT) was recently added to Africa’s transport system. The BRT simulates a mass transit system using exclusive right of way lanes in line with the metro systems well known in developed countries, but using bus technology instead of rail. Cairo, Lagos, Johannesburg, Dar es Salaam, Kampala and Dakar have either introduced the BRT or were in the process of doing so.

To combat the increasing threat of maritime piracy in the Horn of Africa and the Gulf of Aden, many governments in cooperation with the IMO, are taking steps. A code of conduct aimed at combating acts of piracy and armed robbery against ships was adopted following a high-level meeting held in Djibouti on 26 January 2009.

Africa has succeeded, albeit in a limited way, to mobilize resources from its treasury, the private sector and external development partners to finance transport infrastructure and operations.

Current and future implementation challenges and constraints

Africa faces a number of challenges and constraints as regards the development of sustainable transport. More specific challenges include:
• Inappropriate national policies e.g. Lack of prioritizing impact of transport on the environment;
• Lack of harmonized regional and national policies in many countries;
• Limited implementation of sub-regional and regional Agreements;
• Non-alignment of national and regional development plan;
• Low network connectivity and poor state of network;
• Cumbersome administrative and customs procedures along transport corridors;
• Inadequate legal and regulatory, human and institutional capacity;
• Poorly developed transport information Systems; and
• Limited Financial Resources.

Lessons learned and recommended priority policy measures and actions to accelerate implementation

Lessons learnt from past and ongoing initiatives have shown that potentials for speeding up implementation of commitments and achievement of goals and targets exist, provided that the right set of measures in the area of policy, strategy, resource mobilization and capacity building is taken.

National Policies and Regional Agreements:

• National policies should be reviewed and harmonized in a coherent manner with global and regional policies and agreements;
• Subregional level decisions should be reflected in national budgets and development plans;
• Countries should ensure that appropriate institutional frameworks that clearly delineate regulatory and operational functions of all modes of transport are put in place;
• Countries should strengthen existing, and establish new entities responsible for the development of sustainable transport;
• Countries should strengthen and expand national and regional institutions of learning and specialized training centers to effectively conduct training and engage in skills and technological transfer; and
• Countries should promote sharing and replication of best practices, taking into account country specific dynamics.

Transport and the Environment:

Countries should:

• In addition to mitigation measures based on thorough environmental impact assessment that should be incorporated in the development of infrastructure, take the following measure in order to minimize emissions and promote the development of environmentally-friendly transport system in Africa.
• Establish appropriate incentives to encourage the development and use of more efficient and cleaner modes of transport, including the use of energy-efficient modern vehicles, locomotives, vessels, aircrafts and clean fuels;
• Promote the use of low-energy consuming public transport systems;
• Improve traffic management to reduce congestion and delays and their associated emissions;
• Strengthen measures to minimize the number of vehicles in operation, focusing on the retirement of aging fleets and restricting importation of old vehicles;
• Undertake proper land use planning to minimize negative impacts on the environment and health;
• Develop and implement adequate and integrated transport system for effective connectivity; and
• Promote multimodal transport to facilitate movement of goods and services and regional integration.

Energy efficiency

Countries should:

• Develop policies that encourage energy efficiency such as, promoting the importation of energy efficient vehicles, limit the age for imported second hand vehicles, improve traffic management and introduce BRT;
• In order to promote road safety, establish effective institutional frameworks and strengthen existing ones, allocate adequate funds for safety programs and ensure compliance with safety regulations and standards established by the relevant international and regional bodies; and
• Establish transport information systems by taking advantage of the possibilities offered by ICT, develop policies that promote increased use of ICT in all aspects of the transport system and build adequate database of transport information.

Financing transport

To secure sufficient finance for the development and maintenance of transport infrastructure, countries should take the following measures:

• Enhance public source financing by ensuring that an adequate share of GDP is allocated to the sector;
• Encourage public private partnerships in the construction and operation of transport infrastructure;
• Scale up efforts to attract the support of international development partners; and develop integrated transport master plan;
• Fulfill their commitments to improving the domestic investment environment by liberalizing the transport sector to attract private sector financing;
• Establish or strengthen as appropriate, financial independent road funds to develop transport infrastructure; and
• Develop integrated transport master plan.

Conclusions including Africa’s expectations from the international community

Given the fact that sustainable development requires adequate, fast, safe, affordable and environmentally-friendly transport system, African countries need to step up efforts in putting in place appropriate and effective policies, strengthening human and institutional capacities, as well as developing and implementing an integrated transport infrastructure program that meets the current and future needs of citizens.
Despite the critical role that transport plays in all spheres of human activity, there are significant negative impacts on the environment and human health resulting from the construction of infrastructure and provision of transport services. Transport causes among other things, air pollution, congestion in cities and ports, soil erosion, as well as destruction of fauna and flora. Indeed, transport accounts for approximately 20 percent of total world greenhouse emissions. With the rapidly increasing motorized means of transport in Africa, the sector has become the fastest growing source of greenhouse emissions in the continent.

The cost of air pollution in a number of African cities can be as high as 2.7 percent of GDP. Although Africa is not currently among the big polluters, if the continent continues along the path of business-as-usual, it will not only retard its own development, but also significantly contribute to the global problem of climate change. Africa should draw lessons from other countries that have significantly contributed to global warming by avoiding fossil fuel-dependent transport system. Africa will need the support of development partners to mitigate against environmental and climate change impact from transport.

The link between transport and other thematic areas include, energy efficiency, BRT, clean vehicle and fuels, regulation of the importation of old vehicles, enhanced connectivity for improved trade and waste management.

As Africa’s financial resources are limited in comparison to its huge infrastructure financing needs, its development partners should continue providing sufficient development assistance and honor their commitments despite the current economic global crisis.
Annex 6: Outputs of the breakout group on sustainable consumption and production

Output 1: Comments on the draft report

(a) General comments on the report

- The report has captured the key issues relevant to SCP in a comprehensive manner, however it requires further refinement.

In addition, the report should:

- Identify the role of major stakeholders in SCP and this could possibly be captured in the way forward.
- Discuss and highlight the link between sustainable consumption and production, and economic growth and poverty reduction. It should also examine the relationship between SCP and the MDGs, which could be presented in a tabular format.
- Discuss and highlight the links between SCP and Agenda 21 Chapters 4 (Changing Consumption Patterns), 6 (Protecting and Promoting Human Health) and 14 (Sustainable Agriculture and Rural Development). It should be noted that these are very important issues for Africa.
- Include an analysis of SCP in rural areas, vis à vis urban areas. This is in order to better inform interventions aimed at reducing poverty through SCP in rural, and in urban areas.
- Be tailored to a non technical audience to make it more accessible/digestible/user friendly, as it is too technical in its current form. Innovative briefs showcasing best practices, and other promotional materials targeted at different audiences, could be generated from the content of the report.
- Correctly cite the 2008 Sustainable Development Report on Africa, which was consulted in its production. ECA will provide the proper citation.
- The issue of the link between SCP, economic growth and poverty reduction should be reflected in the SDRA
- Suggestions for additional sections: a section on ‘main actors and rules how to achieve the goals of the report’; and a section on ‘how SCP can help to achieve the MDG goals’

(b) Specific comments on the chapters of the report

Chapter 1: Introduction

- No comments were raised.

Chapter 2: Broad trends in production and consumption in Africa

- The 2000 MDG figures presented in page 15 should be revised to provide the latest available figures. In this regard, various reports on the mid-term review of progress in the MDGs could be consulted, as seven years could make a lot of difference.
The link between MDGs and SCP could be included right after the presentation of the MDG figures. This would clearly demonstrate how the two complement and reinforce one another.

Page 9, section 2.2 should include a preambular paragraph highlighting the fact that natural resources are the basis for economic and social development. This will ensure a good flow with the discussion on the current consumption and production trends in section 2.6.

On pages 16 and 17, there is need to discuss Africa’s share in imports and exports to enrich the discussion on Africa’s contribution to multilateral trade. Africa’s market access issues should also be discussed here. In addition, the food safety and security dimension of sustainable consumption and production should be included, given the current discourse on climate change and GMOs.

The proposal on institutional and policy mechanisms (page 22), should take into account the entire structure from regional to national level institutions and policies. The role of ARSCP needs to be clarified in this regard.

The issue of food security and security is missing on page 22, section 2.6.1. It would be good to address the capacity to produce healthy local foods and to mention initiatives on food safety and security. There could also be a link of that to population and climate change.

On page 27 the heading of figure 2.10 reads Carbon dioxide emissions for some selected African countries should be changed, given that the figure presented covers the whole of Africa.

On page 42 the statement that “Several African countries already have a footprint that is larger than their countries’ bio-capacity per capita” should be changed to “some African countries” (however the former is empirically supported by the EFP).

The report should also deal address the impacts of population dynamics and conflicts on SCP.

**Chapter 3: Review of progress and achievements made in SCP in Africa**

On page 86, working on the premise that natural resources form the basis for economic growth in Africa, the report needs to take stock of proper valuation of natural resources. In this regard, it is useful to cover aspects of natural resource accounting, payment for ecosystem services and emerging instruments such as resource taxation.

The report would make a big impact if issues were discussed at decentralized level, since ultimately it is the implementation of the ideas at community level that would make a difference. In addition, there is a need to bring stakeholder at various levels, as well as regional institutions on board, as they can play a key role in promoting SCP.

The report could take into account the need for a two-pronged approach: an action plan and a broader macroeconomic plan for the SCPs.

The report should address the role of NGOs and civil society in addition to that of government. This could be considered under means of implementation.

The focal point for SCP in countries should take into account country specific circumstances and institutional frameworks. There cannot be a one-size fits all
recommendation. The important thing is the need to recognize that SCP requires multisectoral and multidisciplinary approaches.


d Chapter 4: Challenges and constraints

- This chapter should address the question of how to bring it to the community/local level, how to take it down from the national to the operational level, and what kind of specific activities and programmes for that could be proposed.
- Stakeholder cooperation should be reflected and how to engage the regional and sub-regional bodies to promote SCP.

Chapter 5: Lessons Learned and way forward

- The chapter should discuss the inter-linkages with the other thematic areas
- It is recognized that interventions usually take place at the national level. However these need to be localized in order to promote ownership at the grass root level to effect greater impact.
- Regional and sub-regional African organizations such as the Regional Economic Communities (RECs) need to be encouraged to promote SCP through the sub-regional offices of ECA.
- Paragraph 195 focal line institution instead of focal line ministry.
- Paragraph 196 add ‘such as the UNEP SCP indicator guidelines.
- Paragraph 197 should be rephrased to accommodate all development partners intervening in the area of SCP. The role of subregional institutions could be captured in a preceding paragraph.
- Paragraph 198, the reference to the CDM and nationally appropriate mitigation actions enabled by finance, technology and capacity building in paragraph 198 is out of place and should be introduced in a separate section. Also add a separate section on multilateral environmental agreements.
- Paragraph 198 should include a reference to UN Global Compact, WBCSD, NEPAD Business Group etc.
- The ARSCP should be mentioned in paragraph 203 on ‘means of implementation’.
- Paragraph 206-208 should include a short introductory paragraph and elaborate on protecting existing markets for African products as well as expanding market access for African products (regional and international markets).
- Change the heading of chapter 5.3.3. into ‘awareness raising and training’.
- Paragraph 210 should include informal education (including women) and journalists.
- Paragraph 214 should be moved to ‘supporting tools and instruments’.
- Paragraph 215 should include traditional and local knowledge that has SCP merits after the first sentence.
- The heading of chapter 5.3.4. should read ‘institutional framework for implementation’ followed by ‘financial and technology’.
- Add engaging the AU technical committees etc in paragraph 224.

Output two: What Africa needs from the international community (concrete projects in the area of SCP in Africa)
Experts discussed core areas of capacity building for national consumption and production action plans and for upscaling, and identified the following concrete Fast Track SCP Projects for implementation in Africa over the next 3-5 years, which development partners are invited to support:

- Capacity building for national SCP action plans, (UNEP, ARSCP, Marrakech Taskforce (MTF) on Cooperation with Africa and MTF on Sustainable Public Procurement);
- African Local SCP Initiative (ICLEI Africa, ARSCP, UNEP and MTFs);
- Regional programme on Resource Efficiency and Cleaner Production (RECP) including building capacities of NCPCs and SCP institutions, (UNEP, UNIDO and RECP);
- African Eco-labelling Mechanism, ARSO (African Organisation on Standardisation), ARSCP, Marrakech Taskforce (MTF) on Cooperation with Africa);
- Promoting an Integrated Solid Waste Management (ISWM) System in Africa (UNEP, Local Governments (ICLEI-Africa, ARSCP);
- Education for Sustainable Consumption and Production in Africa (ARSCP, MTFs on Education for SCP and Sustainable Lifestyles, ICLEI-Africa);
- Sustainable building and construction in Africa, (Green Building Council –South Africa, ICLEI-Africa, MTF on Sustainable Building and Construction, ARSCP);
- Promotion of small scale renewables and biomass-based co-generation (UNIDO, UNEP, ARSCP).

A number of experts shared their respective country experiences in the implementation of SCP projects. The experts from South Africa highlighted several projects being undertaken. These included an accreditation scheme by the Green Building Council and sustainable lifestyle programme by the municipality of Cape Town. The experts stressed that a number of initiatives were taking place, but the question was how to plug it into the process and share experiences in the continent.

Other examples on waste management were provided by the experts from Egypt, Uganda, and Kenya. Experts highlighted the need to be innovative and think of non conventional ways of managing waste, such as using waste to reduce poverty. The representative of the Marrakech Taskforce stressed the importance of sharing these experiences with the body to assist replication, adapting and leveraging lessons learnt and scaling up projects.

In terms of implementation:

- The local initiative on SCP and national SCP action plans could complement and reinforce each other.
- Each project will employ the RBM framework to facilitate the dissemination of results, identification and showcasing best practices and highlighting lessons learnt.
- Next steps: To include the priority areas in the report of the meeting and the specific recommendations to be considered by the Regional Implementation Meetings (RIM).

Output 3: Comments and inputs to the Global 10- Year Framework of Programme on SCP:
The group made the following comments with a view to ensuring that the interests of Africa as a region are captured in the template:

(a) General comments and inputs

- The African context is different, thus the global framework needs to be flexible enough to accommodate/suit the needs of the region;
- The matter of values and lifestyles may be controversial. But, given that it helps shape consumption and production patterns, major groups have identified it as an important factor, along with other market components. For the purpose of the template, education for SCP could serve as the right terminology to convey this idea;
- The reasons behind the lifecycle approach are two. The first dates back to the JPOI process to ensure more focused and concrete commitments, the second is to make it more attractive/sellable to the international community by differentiating it from other processes that relate or touch on these issues. Thus the use of the lifestyle approach is as strategic as it is functional;
- Given that the whole CSD process engages at the national level, the focal points or lead actors that would discuss NAPs are national governments.

**Output 4: Inter-linkages between SCP and other the themes based on life cycle thinking**

(i) Waste management
- Waste minimization
- Waste to resource conversion

(ii) Transport
- Cleaner fuels and energy efficiency
- Infrastructure planning and development

(iii) Mining
- Resource efficiency and cleaner production
- Ecosystem conservation and social development

(iv) Chemicals
- Ecosystem conservation
- Chemicals in products

Management of these inter-linkages should lead to fulfilling macro-development goals and objectives including the improvement of human well-being in Africa.

The key challenge is to convey the outcomes of this process to the national governments, which requires active engagement with all the partners.