



**Governing Council
of the United Nations
Environment Programme**

Distr.: General
14 December 2009

English only



**Eleventh special session of the Governing Council/
Global Ministerial Environment Forum**

Bali, Indonesia, 24–26 February 2010

Item 4 of the provisional agenda*

Emerging policy issues: environment in the multilateral system

**UNEP contribution to the Commission on Sustainable Development
at its eighteenth session**

Background note by the Executive Director

Summary

The present document has been prepared to provide a succinct background briefing for ministers on the contribution by the United Nations Environment Programme to the Commission on Sustainable Development at its eighteenth session. It will be discussed at the ministerial breakfast round-table event during the eleventh special session of the Governing Council/Global Ministerial Environment Forum.

* UNEP/GCSS.XI/1.

Introduction

1. Discussions at the ministerial consultations to be held during the eleventh special session of the United Nations Environment Programme (UNEP) Governing Council/Global Ministerial Environment Forum will focus on the theme “Environment in the multilateral system”. Under this overarching theme, three interlinked topics of significant importance to the international agenda will be discussed: international environmental governance and sustainable development, the green economy and biodiversity and ecosystems.

2. These three topics will be complemented by a ministerial breakfast round-table discussion on the UNEP contribution to the Commission on Sustainable Development at its eighteenth session. The round table will provide the world’s environment ministers with the opportunity to explore the current and future contribution of UNEP to the Commission cycle and the significance of the current cycle for UNEP and its six cross-cutting thematic priorities.

I. Background

3. The Commission on Sustainable Development was established by the General Assembly in its resolution 47/191 of 22 December 1992 to ensure effective follow-up to the United Nations Conference on Environment and Development (also known as the Earth Summit). The Commission is responsible for reviewing progress in the implementation of Agenda 21¹ and the Rio Declaration on Environment and Development² and for providing policy guidance on following up the Johannesburg Plan of Implementation³ at the local, national, regional and international levels.

4. The Commission meets annually in New York, in two-year cycles, with each cycle focusing on clusters of specific thematic and cross-sectoral issues. The 2010–2011 cycle will focus on transport, chemicals, waste management, mining and the 10-year framework of programmes on sustainable consumption and production being developed with the support of the Marrakech Process.

II. UNEP and the current cycle of the Commission on Sustainable Development

5. The importance of the 2010–2011 cycle to UNEP is clear, given its thematic priorities and their relation to UNEP activities and at least three of the priority areas of its medium-term strategy 2010–2013 (climate change, harmful substances and hazardous waste, and resource efficiency and sustainable consumption and production). UNEP has been actively involved in the Commission process, given its expertise in the cycle’s interlinked themes, as described below.

A. Transport

1. UNEP transport activities

6. UNEP is engaged in a wide range of sustainable transport activities, supporting Governments and their partners in introducing cleaner and more efficient transport policies and technologies through intrasectoral partnerships such as the Global Fuel Economy Initiative and the Partnership for Clean Fuels and Vehicles. Its work in the field has expanded rapidly, with growing government and international interest in sustainable transport. UNEP support for regional and national policymaking and its role as a promoter of partnerships that facilitate consensus and dialogue across public-private divides have enabled progress on transport issues globally and nationally.

7. UNEP is working on programmes and projects focusing on three key objectives: to reduce transport where possible (e.g., through better urban design), to encourage a shift to cleaner modes of transport (e.g., from cars to public or non-motorized transport) and to make the various transport modes cleaner.

1 *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992* (United Nations publication, Sales No. E.93.I.8 and corrigenda), vol. I: Resolutions adopted by the Conference, resolution 1, annex II.

2 *Ibid*, resolution 1, annex I.

3 *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 2, annex.

8. Furthermore, UNEP is emphasizing, for example through its green economy initiative,⁴ the macroeconomic case for investments in cleaner transport, with an emphasis on infrastructure investment and adoption and dissemination of clean technologies.

2. Lessons learned

9. The transport sector has the potential to play a central role in promoting sustainable development and sustainable economic growth. UNEP has prioritized the promotion of investment in infrastructure for non-motorized and public transport to avoid growth in private vehicle use, and the exchange of technologies to allow for cleaner public and private vehicles. By focusing efforts on the areas where most can be achieved, major progress has been made.

10. Key lessons learned from UNEP transport work include that, as transport implies local issues (for example, air pollution) and global challenges (such as climate change), transport programmes should focus on both.

11. Transport issues can only be successfully addressed with the involvement of both the public and private sectors. The United Nations is ideally placed to act as a facilitator to bring together these stakeholders and support the implementation of activities through public-private partnerships.

12. The transport sector is vast and presents many issues that must be considered. To achieve genuine positive change it is important to focus on specific issues rather than to seek to resolve all issues at once. The priority focus should be on the issues that promise the greatest environmental, social and health-related impact. Taking this approach, following the World Summit on Sustainable Development in 2002 UNEP prioritized the phase-out of leaded gasoline and worked with the public and private sectors to achieve an almost complete phase-out worldwide.

13. The priority objectives today are to ensure, through the promotion of cleaner fuels and vehicles, that the rapid growth of vehicle fleets taking place in developing countries does not result in increased emissions; and to promote a cleaner, more efficient transport infrastructure for public and non-motorized transport as an alternative to private motorized vehicle use.

14. In responding to the growing transport emissions caused by the rapid increase in private car use in developing countries and countries with economies in transition, the United Nations should focus on promoting clear targets, agreements and programmes at the global and regional levels and on supporting the development of specific transport programmes at the national level through capacity-building and technical and financial support.

3. Challenges and options for the current cycle of the Commission on Sustainable Development

15. In terms of transport, the main challenge faced is to convert the current unsustainable, energy-intensive sector into a low-carbon sector forming part of a green economy. Rising to the challenge will require an approach that integrates various programmes and initiatives, including cleaner vehicles, infrastructure and public transport, while tackling issues such as access to transport, climate change and energy, air pollution, noise and resources.

16. Participants at the regional implementation meetings that took place in the five United Nations regions (Africa, Western Asia, Asia and the Pacific, Latin America and the Caribbean, and Europe and North America) towards the end of 2009 to prepare for the eighteenth and nineteenth sessions of the Commission on Sustainable Development placed a high priority on addressing transport issues. The rapid growth in transport demand and of the vehicle fleet, with resulting impacts on local air pollution and global greenhouse gas emissions, is a cause for concern in all regions.

17. It was recognized that there was a need for integrated transportation strategies combining a reduction in transport, where possible, a shift to less carbon-intensive modes of transport and the promotion of cleaner transport. These strategies should take into account environmental, development, economic and social elements, such as road safety and health.

18. Priority goals identified in all regions included improving fuel standards to allow for cleaner vehicles; developing programmes to promote and support the introduction of advanced technologies; investing in more sustainable transport infrastructure; and increasing the consideration of transport issues in spatial planning.

4 <http://www.unep.org/greeneconomy/>

B. Chemicals

1. UNEP chemicals activities

19. UNEP plays a unique role in tackling environmental aspects of chemicals and waste management through a life-cycle approach. It has demonstrated competence in identifying and assessing chemicals issues and in facilitating the development of global frameworks for chemicals management. It supports their evolution and implementation through the development of guidance materials and other tools to assist countries in resolving issues. In UNEP this work is carried out principally through the harmful substances and hazardous waste subprogramme. UNEP works in close collaboration with the participating organizations of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), in particular the World Health Organization and the Food and Agriculture Organization of the United Nations, in providing comprehensive and coherent risk assessment and management guidance and advice, and with the United Nations Development Programme on national delivery of the mainstreaming initiative to integrate the sound management of chemicals into national development plans. Furthermore, UNEP supports activities of the IOMC organizations such as the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals, which is led by the United Nations Institute for Training and Research and the International Labour Organization.

20. In decision 25/5, on chemicals management, including mercury, the Governing Council in 2009 acknowledged with appreciation the progress achieved in enhancing coordination and cooperation on mercury within the international chemicals and waste cluster and welcomed the progress made to that point in implementing the Strategic Approach to International Chemicals Management and, in particular, efforts to integrate the sound management of chemicals into development planning processes.

(a) Strategic Approach to International Chemicals Management

21. The Strategic Approach to International Chemicals Management was endorsed by the UNEP Governing Council in its decision SS.IX/1 of 9 February 2006 and later by the governing bodies of several international organizations. The Strategic Approach was developed during a series of meetings convened by the Intergovernmental Forum on Chemical Safety, IOMC and UNEP.

22. UNEP hosts the Strategic Approach secretariat and manages its Quick Start Programme and dedicated trust fund, which provides financial support for initial activities to implement the Strategic Approach in developing countries. UNEP, in collaboration with its IOMC partners, also supports the implementation of the Strategic Approach and the decisions of its governing body, the International Conference on Chemicals Management.

(b) Legally binding instrument on mercury

23. Under the mandate of a number of Governing Council decisions (22/4, section V; 23/9, section IV; 24/3, section IV; and 25/5, section III), UNEP undertakes a range of activities in response to the widespread concerns over the serious adverse effects of mercury on human health and the environment, in particular within the UNEP Global Mercury Partnership. The Global Mercury Partnership serves as the main delivery mechanism for interim activities that are to be strengthened and enhanced over the coming years. Activities include assistance to countries in developing inventories, work on artisanal and small-scale mining and a major project on mercury waste management and mercury storage. In section III of decision 25/5 the Governing Council called for the elaboration of a legally binding instrument on mercury, to be completed prior to the twenty-seventh regular session of the Governing Council/Global Ministerial Environment Forum, in 2013. UNEP was given the responsibility to convene, support and serve as secretariat for an intergovernmental negotiating committee that would prepare the global legally binding instrument.

(c) Multilateral environmental agreements

24. UNEP hosts the secretariats of three conventions dealing with hazardous wastes and chemicals: the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants. UNEP also supports their implementation through its resource efficiency and harmful substances and hazardous waste subprogrammes and as an implementing agency of the Global Environment Facility. Among other activities, UNEP has developed global guidelines such as toolkits for compiling national release inventories for pollutants, including polychlorinated dibenzodioxins, dibenzofurans and mercury. Furthermore, criteria have been developed and are being applied by

analytical laboratories in the analysis of persistent organic pollutants, resulting in the generation of high-quality data in a sustainable manner. These guidelines and criteria are needed and used by countries for national reporting and for establishing time and spatial trends with regard to chemical use and releases.

(d) Industrial risk reduction

25. UNEP provides support to Governments and the private sector on awareness, prevention, preparedness and management in respect of industrial risks and chemical accidents. It runs three programmes aimed at strengthening chemical safety at the national and local levels: the flexible framework for chemical accident prevention and preparedness, the awareness and preparedness for emergencies at local level (APELL) programme and the responsible production programme for chemical hazard management in small and medium-sized enterprises.

(e) Green economy

26. The contribution of sound chemicals management to ecosystem integrity, while minimizing wasted resources, maximizing community self-sufficiency and optimizing access to economic opportunities, especially for developing countries and countries with economies in transition, needs to be recognized as a key factor in determining the success of the green components of stimulus packages.

27. UNEP is developing a global outlook document on harmful substances and policies and trends in respect of the production and use of hazardous chemicals and their potential impacts on human health and the environment. The outlook will assess the implications of these policies and trends for chemicals and waste management; provide a coherent framework for assessing and setting priorities for international attention, including through the Strategic Approach; and identify opportunities for the sector to contribute to economic development via the UNEP green economy initiative.

2. Lessons learned

28. The centre of gravity in the production, use and trade of chemicals is shifting rapidly to developing countries. This has the potential to increase the negative impacts on human health and the environment in those countries with the weakest capacities to manage chemicals soundly. Important work is being undertaken on this aspect of chemicals and waste management under the Health and Environment Linkage initiative, a programme carried out by UNEP with the World Health Organization. At the first inter-ministerial conference on health and environment in Africa, which took place in Libreville in August 2008, African health and environment ministers recognized the mutual importance and relevance of their respective sectors and the synergies that could be derived from intensified collaboration.

29. Countries need institutional structures for the dissemination of information on chemical safety matters and the implementation of multilateral environmental agreements such as the Rotterdam and Stockholm conventions.

30. An enabling environment, with sustainable funding, at the national level is essential for the implementation of existing multilateral environmental agreements governing chemicals and the sound management of chemicals more broadly. To achieve this, there is a need to rank sound management activities as priorities in national development strategies. The sources of financing for the sound management of chemicals at the national level in developing countries and countries with economies in transition are likely to remain, over the short and medium terms, the bilateral and multilateral funds that provide support through development mechanisms. In the long term, however, sustainable national funding will be required. This could be achieved through the use of economic instruments to recover the cost of Governments' administrative activities to ensure the sound management of chemicals.

31. Strengthened international cooperation through the Strategic Approach to International Chemicals Management plays an important role in building the necessary national capacity. To support initial capacity-building and implementation activities related to sound chemicals management in developing countries, a funding mechanism, namely the Quick Start Programme, was established. The Programme was designed to provide rapid and efficient services to recipient countries and nearly 100 projects involving 85 countries have been financed since its establishment in 2006. Specific activities that have been funded include the development of national chemicals management profiles and the establishment of integrated national programmes for sound chemicals management, in addition to the integration of sound chemicals management considerations into development plans and processes. Other activities relate to strengthening capacity to control the transboundary movements of hazardous wastes and chemicals in the context of the Basel Convention, in addition to implementing the Stockholm Convention and the Globally Harmonized System of Classification and Labelling of Chemicals. Other

areas of focus include the enhancement of the safe management of pesticides and the development of pollutant release and transfer registers. Although funding available under the Quick Start Programme is limited to initial enabling activities for Strategic Approach implementation, it has served as a facilitator for broader capacity-building for the sound management of chemicals.

3. Challenges and options for the current cycle of the Commission on Sustainable Development

32. While the chemicals sector is a major contributor to national economies, the sound management of chemicals throughout their life cycle is essential not only to avoid significant risks to human health and ecosystems but also to maximize the benefits of their contribution to human well-being.

33. Progress on the sound management of chemicals is hindered by a lack of data regarding chemical use. A lack of access to affordable and environmentally sound technologies was also identified as another major challenge during the regional implementation meetings. Technical capacity-building and funding were therefore highlighted as priorities at all the regional meetings. The importance of prioritizing and integrating strategies on chemicals into national policies for economic growth and poverty reduction was also stressed during the regional processes, as was the need to integrate chemicals and hazardous waste management strategies.

34. Countries can benefit from legal and institutional infrastructures for the sound management of chemicals that strengthen the institutional capacity of national Governments to develop legislative and regulatory systems for the environmentally sound production and use of chemicals, including flexible frameworks for chemical accident prevention and preparedness.

35. The participants in the regional processes identified implementation of the Strategic Approach, with adequate financial support, as an important step in responding to the challenges posed by chemicals. UNEP has demonstrated its commitment to such implementation through its programme of work.

C. Waste management

1. UNEP activities in terms of waste management

36. The overriding objective for sustainable waste management is to minimize adverse environmental impacts, minimize waste and maximize resource recovery. UNEP, in partnership with international, national and local organizations, under its thematic priority areas of resource efficiency and harmful substances and hazardous waste, has set out to intensify and strengthen its activities in the field of waste management. By its decision 25/8 on waste management, the Governing Council reaffirmed in 2009 that international organizations should undertake more focused and coordinated actions to fill current gaps in the support given to developing countries and recommended that the Executive Director should propose integrated waste management as a key priority area under what is known as the “Delivering as one” initiative.

37. The UNEP waste programme focuses on capacity-building and support for technology identification, assessment and implementation at the national and local levels and is built on three main pillars: waste minimization and prevention; maximization of resource recovery through integrated solid waste management, including effective management of solid and hazardous waste; and management of specific waste streams.

38. Waste minimization and prevention are promoted, in the private sector especially, through cleaner production and life-cycle management of materials and products. UNEP and the United Nations Industrial Development Organization (UNIDO) have recently developed a joint programme on resource-efficient and cleaner production in developing and transition economies with the purpose of scaling up and expanding the coverage of technical support services. In addition, UNEP has established the Life Cycle Initiative in collaboration with the Society of Environmental Toxicology and Chemistry (SETAC) to enhance the global consensus in favour of existing and emerging life-cycle-based and scientifically sound approaches to chemicals and waste management and to facilitate the use of such approaches by encouraging life-cycle-based decisions by businesses, Governments and the general public regarding natural resources, materials and key products.

39. UNEP has developed an integrated solid waste management approach, which focuses on reducing, reusing and recycling, often referred to as the “3Rs”. Under this approach, all waste streams in a city or similar geographic region, whether municipal, commercial or industrial, are considered and a plan is developed covering all aspects of waste management, from collection to segregation, transportation, recovery or recycling, treatment and final disposal. The approach has enabled city

authorities to perceive waste as a resource and thus generate revenue and employment through its management. The cost of waste management is consequently reduced.

40. UNEP has carried out demonstration projects and assisted local governments in various countries, including Brazil, China, India, Lesotho, Kenya and Sri Lanka, to develop integrated waste management plans, with encouraging results. Current projects have shown that as much as 70 per cent of waste can be diverted from landfill and provide valuable resources, create jobs and avoid tens of thousands of tons of greenhouse-gas emissions every year.

41. Demonstration projects are also being carried out for the management of specific waste streams, such as e-waste management in Cambodia, converting waste plastics into fuel in India, the Philippines and Thailand and converting waste agricultural biomass into a resource in Nepal, Pakistan, the Philippines and Sri Lanka.

42. UNEP has developed several guidelines, manuals, training packages and technology compendiums in the three main areas of its waste programme, which are available online. It has also run training programmes and capacity-building activities for Africa, Asia and the Pacific, Latin America and the Caribbean and West Asia. It is working towards establishing a global platform on waste management that would facilitate the establishment of partnerships and cooperation between various agencies and Governments.

43. In cooperation with and support of the Basel Convention, projects are being implemented on the sound management of persistent organic pollutants and more recently on the development and further improvement of the guidelines on environmentally sound management of mercury waste.

2. Lessons learned

44. Some valuable lessons have been learned through UNEP activities in waste management. For example, Governments, and local governments in particular, often lack knowledge as regards environmentally sound waste management and are unaware of the potential of recovering resources from waste. Demonstration projects conducted by UNEP and assessment reports prepared by the International Panel for Sustainable Resource Management on topics such as global metal flows are an excellent means of showcasing opportunities for economic and social development through the sustainable management of wastes, and ultimately materials, throughout their life cycles.

45. While upfront and explicit political commitment is essential to ensure the serious engagement of partners, experience shows that it is often difficult to gain national interest in local-level projects, a fact that adversely affects the ability to replicate projects within a country.

46. Waste management is a multi-stakeholder process and the active participation of all stakeholders in developing the sustainable management of waste and materials is crucial. Government authorities dealing with waste management, however, are not always familiar with the process of stakeholder involvement and building trust among stakeholders can take time. The private sector has a particular responsibility in minimizing waste over the entire life cycle of products put on the market.

47. UNEP experience has shown that a lack of local capacity is an important factor affecting the improvement of waste management. Lack of funding also places limitations on the speed of projects and the implementation of project findings. A project's impact can be significantly enhanced if funds are available to support the implementation of various schemes identified during demonstration projects. Lastly, unforeseen problems can arise during the implementation of new approaches such as integrated solid waste management; long-term support is therefore required.

3. Challenges and options for the current cycle of the Commission on Sustainable Development

48. Unsustainable patterns of production and consumption, in addition to economic growth, urbanization and industrialization, are resulting in an increase in both the quantity and variety of waste. This is a growing problem for national and local governments in terms of both resources and capacity. Ineffective and inefficient waste management lead to negative impacts in terms of health, environment and greenhouse-gas emissions, in addition to the loss of precious materials and resources. While waste prevention, minimization, reuse, recycling and recovery should continue to be priority activities, there is also a need to establish environmentally sound disposal systems for residual wastes.

49. The regional implementation meetings for the current cycle of the Commission on Sustainable Development highlighted the opportunities presented by waste management, especially in terms of the recovery of resources. In that regard, UNEP work on the green economy, with waste management as one of its focal areas, explores the potential for waste management and recycling to generate decent employment and enhance resource efficiency, in addition to addressing environmental and social

problems associated with the generation of waste. UNEP is preparing a green economy report under its green economy initiative. The report will include a chapter on waste minimization, which will consider the economic trade-offs between waste minimization, reuse of goods and materials and recycling, paying due attention to the potential of the sector in developing countries.

50. Many challenges were also identified during the regional processes, such as the need for awareness-raising and capacity-building for all stakeholders in all aspects of waste management, in addition to institutional strengthening and the transfer and dissemination of knowledge and technology. The need to formulate and strengthen waste policies and regulatory frameworks was also a priority for a number of countries. In terms of international cooperation, it was felt in a number of regions that the implementation of waste-related multilateral environmental agreements should be strengthened, while the illegal movement of waste was a concern for some regions. Most regions highlighted the need for increased regional cooperation, for example through the exchange of information and good practices. The important role of the private sector and the informal sector was also highlighted.

51. UNEP activities in the field of waste management address many of these challenges. Those activities include awareness-raising, capacity-building, demonstration projects, policy formulation, improving availability of and access to information and technology and developing innovative approaches to waste management, with an emphasis on resource recovery and environmentally sound disposal of residual waste. Parallel activities include support to countries in strengthening the implementation of multilateral environmental agreements, preventing illegal trade through the training of Customs officials and the development of environmentally friendly products through the UNEP-SETAC Life Cycle Initiative.

52. The difficulties posed by the management of specific waste streams such as e-waste, waste plastics and organic wastes, with emphasis on material and energy recovery, were also discussed in several regions. Existing UNEP programmes on managing specific waste streams are geared towards maximizing the recovery of resources.

53. Ultimately, UNEP can develop the global platform on waste management as a United Nations-wide waste forum that bundles waste-related activities throughout the United Nations system, acts as a clearing house for best practices and regulatory frameworks, provides capacity-building and technical assistance and works in close cooperation with bilateral development agencies and the private sector. The focus can be enlarged over time from waste to materials management, covering all stages of product life cycles. Actions will include facilitating policy dialogues and the replication and scaling up of activities at both the regional and national levels.

D. Mining

1. UNEP activities in the mining sector

54. The global economy depends on the flow of materials that are extracted from the earth, processed via production and consumption processes to meet human needs and then disbursed as wastes generated by this extraction, production and consumption. The mining sector is a strategically important sector that provides highly needed resources for economic development. Over the past century, the extraction of construction materials increased by a factor of 34, while the extraction of ores and industrial minerals increased by a factor of 27. Highly industrialized countries have until recently been responsible for rapid increases in global resource consumption, with developing countries acting mainly as resource exporters. This has begun to change, however. Newly industrialized economies, in particular those that depend on imports from resource-rich exporting countries in the developing world, are now playing an increasingly important role in consumption.

55. Over the past decade, programmes and activities aimed at reducing the environmental impact of mining have become stronger in developed countries and received increasing attention in developing countries, mainly through the support of the United Nations and development agencies. The impact of extractive industries varies by region depending on mining and disposal technologies and local features: the nature of the ore or mineral being mined, the depth of the deposit, the chemical composition of the extracted matter and the surrounding rocks, naturally occurring substances, topography, climate and reclamation practice. For surface mines, the main environmental problems are large-scale land use, overburden⁵ removal and disposal, hydrological disturbance, acid mine drainage, fugitive dust and reclamation. For underground mines, the problems are mine water drainage, methane emissions and

⁵ The term "overburden" refers to materials such as soil that must be removed to enable access to a valuable deposit.

fugitive dust. In both types of mining operations, unsafe transport and storage of hazardous chemicals and untreated wastes are also matters of concern. If not managed well, any of these operations can adversely affect the health and livelihood of the poor and vulnerable groups living near mining operations.

56. UNEP has been working with the mining industry, the International Council on Mining and Metals and other partners to promote the environmentally sound management of mining operations. This includes the development and application of toolkits on mining operations, including on mine rehabilitation for environmental and health protection and on accident preparedness for emergencies at the local level through the UNEP awareness and preparedness for emergencies at local level (APELL) approach. It has also assisted in developing a code on the safe management and use of cyanide and in launching the International Cyanide Management Code, which currently covers more than half of global gold producers.

57. As part of the implementation of Agenda 21, UNEP engaged the most relevant industry sectors, including the mining industry, in various partnerships leading to the production of a series of sectoral review reports under the theme “Industry as a partner for sustainable development” as an input to the World Summit on Sustainable Development. This included sectoral review reports on the coal, oil and gas and iron and steel industries.

2. Lessons learned

58. Challenges for the mining sector include efficient resource use, energy use in a climate mitigation and adaptation context, management of toxic substances, protection of ecosystems, labour conditions, relationships with communities and financial and technical risks.

59. The successful implementation of the International Cyanide Management Code through the active participation of industries and business and the wider appreciation and implementation of the APELL approach clearly demonstrate the significant role that the private sector can play in the prevention of chemical disasters and protection of the environment.

3. Challenges and options for the current cycle of the Commission on Sustainable Development

60. While mineral resources provide unique development opportunities, the expansion of the mining sector in many mineral-rich developing countries has led to less than optimal economic outcomes and the underutilization of its potential contribution to sustainable development. This is mainly a result of the undervaluation of resources, the ineffective redistribution of benefits between companies, States and local communities and the weak economic links between the mining sector and the broader national economy.

61. In addition to these issues, artisanal and small-scale mining, a major source of livelihood for millions in the developing world, is causing significant damage to the environment because of the spontaneous and unorganized nature of its expansion and the continued separation of the sector from the formal economy.

62. These issues were highlighted during the regional implementation meetings for the current cycle of the Commission on Sustainable Development, and the need for mandatory environmental impact assessments and regulation on mining, especially small-scale mining, was stressed. Priorities included the application of corporate social responsibility and life-cycle management, with long-term planning and monitoring during all stages of the development, exploitation and closure of mines, including the monitoring of closed mines. Further recommendations included capacity-building in respect of accident prevention and preparedness and the broader participation of local communities.

63. On a global basis, the reuse of extracted material increased from 40 billion tons in 1980 to just below 55 billion tons in 2000, and is projected to increase to just over 80 billion tons by 2020.⁶ This growing trend in what is referred to as “urban mining”, aimed at obtaining more value and use from minerals and metals that already exist in the economic system, is expected to create new employment and economic opportunities and thereby provide a basis for enhancing the contribution of the minerals and metal sectors to the green economy.

⁶ Giljum, S., Behrens, A., Hinterberger, F., Lutz, C. and Meyer, B., 2007. *Modelling Scenarios Towards a Sustainable Use of Natural Resources in Europe*. SERI working papers: 4.

E. Ten-year framework of programmes on sustainable consumption and production

1. UNEP activities in the field of sustainable consumption and production

64. Chapter III of the Johannesburg Plan of Implementation, which relates to changing unsustainable patterns of consumption and production, calls upon Governments and other stakeholders to encourage and promote the development of a 10-year framework of programmes in support of regional and national initiatives to accelerate the shift towards sustainable consumption and production to promote social and economic development within the carrying capacity of ecosystems.⁷ In response, UNEP and the United Nations Division of Economic and Social Affairs convened and now lead the informal Marrakech Process on sustainable consumption and production, which assembles relevant experts, policymakers, businesses, non-governmental organizations and other stakeholders to help to design and implement policies and capacity-building activities promoting the shift to sustainable consumption and production. As part of this work efforts are under way to construct and pilot elements of the 10-year framework called for in the Johannesburg Plan of Implementation.

65. UNEP work to support the development of the 10-year framework of programmes is guided by Governing Council decision 22/6 of 7 February 2003, on promotion of sustainable consumption and production patterns. It encompasses a wide spectrum of activities at the national, regional and international levels, including supporting scientific and life-cycle assessments through the UNEP-SETAC Life Cycle Initiative and the International Panel for Sustainable Resource Management and promoting policies, management practices and investments required to achieve sustainable consumption and production. Seven task forces have been established under the Marrakech Process covering sustainable lifestyles, sustainable products, education for sustainable consumption, sustainable building and construction, sustainable procurement, sustainable tourism and cooperation with Africa. These task forces have developed recommendations for public policies and private sector management practices and have in some cases piloted them or provided capacity-building to support their implementation.

66. UNEP is also promoting resource-efficient, cleaner and safer production, as exemplified by its work, together with UNIDO, with national cleaner production centres and education, awareness-raising and information tools for sustainable consumption and lifestyles. Partnerships to promote sustainable consumption and production in specific sectors have been established with industry (as exemplified by the Sustainable Buildings and Construction Initiative) and capacity-building and training are being carried out to support the mainstreaming of policies on sustainable consumption and production and the implementation of national action plans on sustainable consumption and production, sustainable procurement policies or sustainable tourism projects and policies in 38 countries. UNEP also engages in regular regional consultations and provides support for the development of regional strategies on sustainable consumption and production (in some cases with ministerial endorsement), including through regional round tables on the subject.

2. Lessons learned

67. Experience shows that, while consultations and round tables can lead to the adoption of regional strategies on sustainable consumption and production, continued capacity-building and technical support are required at both the national and regional levels to implement those strategies. Such support must focus on specific sectors and policy tools to be translated into practical action. Policy tools must respond to national needs and priorities: some countries, for example, prefer to develop national action plans on sustainable consumption and production while others prefer to integrate policies on the subject into overall development policies and poverty reduction strategies. Close and sustained collaboration with national and regional partners, both governmental and non-governmental, is required with regard to capacity-building and implementation. The engagement of all relevant ministries is vital if objectives and policies on sustainable consumption and production are to be embedded effectively in national policy frameworks.

68. Government-led task forces established under the Marrakech Process have provided focus and have proved very useful in assembling actors and making real progress on designing and implementing a variety of capacity-building activities and policies. The task forces have turned out to be flexible and efficient user-driven initiatives that have swiftly developed and in some cases piloted new policies.

⁷ *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 2, annex, chap. III, para. 15.

Governments are invited to consider establishing new task forces in identified priority areas such as solid waste management, small and medium-sized enterprises and supply chains and food and agriculture. Some existing task forces, notably those on sustainable tourism and sustainable lifestyles, are being transformed into broader partnerships, with the aim of expanding their work and extending it into the implementation phase of the 10-year framework of programmes.

3. Challenges and options for the current cycle of the Commission on Sustainable Development

69. There is a clear need to draw together the very wide range of activities under way on sustainable consumption and production, beyond those being undertaken by UNEP and its partners. The development of the 10-year framework of programmes provides an opportunity to do this. Realizing synergies and avoiding duplication require concerted efforts at the global level. Ultimately, the challenge is to agree on the 10-year framework of programmes at the global level through the Commission on Sustainable Development while ensuring that it is flexible enough to meet diverse regional and national needs.

70. Experience from Marrakech Process consultations and the regional implementation meetings for the Commission on Sustainable Development show that, while a variety of programmes will be needed, there are a number of priorities shared by more than one region. These include support for economic instruments that will facilitate sustainable consumption and production, sustainable public procurement and the integration of sustainable consumption and production objectives into national development strategies and education for sustainable consumption. Key economic sectors in which sustainable consumption and production must be encouraged include energy, agriculture, building and construction, waste management, and tourism. Each area has been identified as a priority in at least two and as many as four of the five United Nations regions and is therefore likely to be at the core of the 10-year framework of programmes.

71. A shift to sustainable consumption and production can deliver significant social benefits, enabling countries, companies and communities to do more and better with less, thereby increasing net welfare gains from economic activities by reducing resource use, depletion and pollution. It is critical to convey information on these benefits to policymakers and to make them aware that a growing demand for more sustainable products is creating new markets that those who are first to move to sustainable consumption and production can turn into new jobs and revenue streams.

72. Regional meetings on sustainable consumption and production organized by UNEP prior to the five regional implementation meetings for the forthcoming sessions of the Commission on Sustainable Development have helped to convey this point and facilitated the delivery of more specific recommendations from the formal regional implementation meetings on the shape and content of the 10-year framework of programmes. This process needs to be continued during the Commission's eighteenth session; UNEP will provide support for it by preparing a manual setting out technical definitions and concepts on sustainable consumption and production, a review of effective policy and capacity-building outputs from the Marrakech Process and innovation briefs based on the work of the Marrakech Process task forces.

73. With its focus on supporting regional and national initiatives the 10-year framework of programmes will be an important tool with which to put in place the sustainable consumption and production policies, management practices, investments, technologies and capacity-building activities necessary to make the transition to a green economy. Both sustainable consumption and production capacity-building activities and the green economy approach aim to assist regions and countries in developing policies aimed at building a green or eco-efficient economy. While the Marrakech Process and the Commission on Sustainable Development discussions will take a bottom-up approach to building the 10-year framework of programmes through stakeholder consultation, the macroeconomic analysis being undertaken as part of the green economy initiative can help to identify additional key policies required for the shift to the green economy. That analysis can in turn inform the discussions on the 10-year framework of programmes that will take place during the Commission's eighteenth and nineteenth sessions.

74. The discussions at those sessions, and at the fourth international expert meeting of the Marrakech Process, due to take place in the fourth quarter of 2010, will enable Governments, businesses, non-governmental organizations and other stakeholders to identify specific policy tools, implementation mechanisms, lead actors and partnerships to include in an effective and broadly supported 10-year framework of programmes.

III. UNEP contribution to the current cycle of the Commission on Sustainable Development: inter-agency cooperation

75. The current cycle of the Commission on Sustainable Development presents an opportunity for UNEP to share its expertise on the thematic cluster while strengthening its cooperation with other United Nations bodies.

76. During the cycle, UNEP and the United Nations Department of Economic and Social Affairs have decided to coordinate their efforts to support the Commission. As part of this partnership, UNEP and the Department are co-authoring the reports of the Secretary-General for both the eighteenth and the nineteenth sessions of the Commission, which will include reports on the implementation of Agenda 21 and on the cycle's five principal themes. The Secretary-General's reports are an important part of the Commission process as they feed into discussions during the sessions of the Commission.

77. UNEP is also supporting the Department in the preparation of seminars leading up to the Commission's sessions, which are aimed at furthering national delegations' awareness and understanding of the issues being examined during the cycle.

IV. United Nations Conference on Sustainable Development: Rio + 20

78. By its resolution 64/236 of 24 December 2009, entitled "Implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development", the General Assembly decided to organize in 2012 a three-day United Nations conference on sustainable development, which has come to be called "Rio + 20" in reference to the twentieth anniversary of the 1992 United Nations Conference on Environment and Development. The themes of the conference will be, among others: "a green economy in the context of sustainable development and poverty eradication" and "the institutional framework for sustainable development".⁸ The Conference will result in a focused political document.⁹

79. In the preamble to the resolution the General Assembly recalled that the themes of the eighteenth and nineteenth sessions of the Commission were interlinked and concluded that they should be addressed in an integrated manner, taking into account the economic, social and environmental dimensions of sustainable development, related sectoral policies and cross-cutting issues, including means of implementation, as identified at the eleventh session of the Commission.

80. The General Assembly then reiterated that:

Fundamental changes in the way societies produce and consume are indispensable for achieving global sustainable development and that all countries should promote sustainable consumption and production patterns, with the developed countries taking the lead and with all countries benefiting from the process, taking into account the Rio principles, including the principle of common but differentiated responsibilities as set out in paragraph 7 of the Rio Declaration on Environment and Development.

81. The General Assembly also reiterated that Governments, relevant international organizations, the private sector and all major groups should play an active role in changing unsustainable consumption and production patterns.

82. The objective of the conference will be to secure renewed political commitment for sustainable development, assessing progress to date and remaining gaps in the implementation of the outcomes of major summits on sustainable development and tackling new and emerging challenges. The General Assembly requested the Secretary-General to provide a report on progress to date and remaining gaps in the implementation of the outcomes of the major summits in the area of sustainable development, in addition to an analysis of the themes identified above, for consideration at the first meeting of the preparatory committee that will guide preparations for the conference.

8 Para. 20 (a).

9 Para. 20 (b).

V. President's summary: some possible messages

83. The Governing Council/Global Ministerial Environment Forum is the United Nations high-level environment policy forum and brings the world's environment ministers together to review important and emerging policy issues in the field of the environment. The Council/Forum provides broad policy advice and guidance with the aim, among others, of promoting international cooperation in the field of environment. In so doing it invites officials of United Nations agencies and heads of multilateral environmental agreement secretariats to participate and interact with ministers at meetings and seeks to promote the meaningful participation of representatives of major groups and non-governmental organizations, including the private sector.

84. It has become the practice for the President of the Council/Forum to prepare a summary of the ministerial consultations that take place at each session. The summary provides an opportunity for environment ministers collectively to send a message to the United Nations system, Governments, civil society and the private sector on their perspective on the topics under discussion.

85. In addition to the summary, the President has proposed that at its eleventh special session the Council/Forum should also adopt a ministerial declaration, statement or communiqué. A draft has been jointly proposed by the Governments of Indonesia and Serbia.

86. As noted above, the ministerial consultations during the eleventh special session will include ministerial breakfast discussions. The following questions aim to stimulate those discussions:

(a) Introductory question: how can a green economy based on sustainable consumption and production patterns, efficiency in the use of natural resources and poverty eradication contribute to sustainable development, taking into account global challenges such as the financial and economic crisis, food security and climate change?

(b) Transport: as two thirds of the global vehicle fleet will be found in developing countries and countries with economies in transition, how can we ensure that more sustainable and low-carbon transport systems and modes are also put into place in these countries?

(c) Waste management: UNEP has proved the applicability and benefits of an integrated solid waste management approach with a focus on reducing, recycling and reusing in the developing-country context through pilot and demonstration projects. How can these projects be replicated and how can integrated solid waste management be mainstreamed in local and national development initiatives? How can funding be attracted to facilitate the implementation of integrated solid waste management plans? How can waste generation and its related environmental impacts be decoupled from economic growth?

(d) Chemicals: how can the sound management of chemicals, including international regulations and international standards and trade issues, be better integrated into national development plans and strategies? Should decision-making tools and instruments incorporating economic valuation of environmental and health costs be used more extensively to promote sound chemicals management?

(e) Mining: what key measures need to be taken by national Governments to ensure the development of their mineral resources on a more sustainable basis and to optimize the sector's contribution to countries' overall sustainable development agendas? What will be expected from international development partners and multinational companies in attaining these goals?

(f) Sustainable consumption and production and the 10-year framework: what programmes are needed to support countries and regions in their implementation of sustainable consumption and production and could be included in the 10-year framework? How can the International Panel for Sustainable Resource Management strengthen the scientific knowledge base for sustainable consumption and production? How can capacity and technical and financial support to Governments, the private sector and non-governmental organizations be increased?

(g) General:

(i) How can greater collaboration and partnerships be forged at the international level to enhance national and international action on promoting sustainable transport, chemicals management, waste management and sustainable mining? Are multi-stakeholder partnerships a promising avenue for advancing national and international action?

- (ii) How can the Commission on Sustainable Development process, with its thematic clusters, support countries in achieving low-carbon and sustainable development through a green economy approach? Which specific approaches are needed to ensure that the results of economic analysis are translated into specific tools that policymakers and decision makers can employ in relevant policy processes?

Annex

Key outcomes of the regional implementation meetings

1. Regional implementation meetings allow for the consideration of regional and subregional issues during a given cycle of the Commission on Sustainable Development. UNEP has been active at the regional level, both participating in the meetings and providing substantial contributions to their background reports, in which challenges, opportunities, lessons learned and good practices for each theme are identified. As regional meetings take place only once during each two-year cycle, it was important during the current cycle for UNEP not only to support the review of the implementation of Agenda 21 and the Johannesburg Plan of Implementation, but also to ensure that policy options were examined.

A. Western Asia

2. The meeting in the Western Asia region, as is customary, was held as part of the meeting of the Joint Committee on Environment and Development in the Arab Region. It took place in Cairo from 4 to 6 October 2009. The background papers were prepared by experts under the leadership of the League of Arab States, the UNEP Regional Office for West Asia and the United Nations Economic and Social Commission for Western Asia.

1. Transport

3. The Economic and Social Commission, in collaboration with the Regional Office and the League of Arab States, organized an expert meeting on transport for sustainable development in the days preceding the regional implementation meeting. At both meetings participants identified regional priority needs, including the need to improve policies and procedures for the transport sector; the need to adopt advanced technology in transport; and the need to improve fuel standards, rural transport networks and transport safety.

2. Chemicals

4. Governments from the region have developed an Arab high-level declaration concerning the second session of the International Conference on Chemicals Management, which took place in May 2009. Participants highlighted the elaboration of integrated chemicals and hazardous waste management strategies, along with the exchange of expertise on the transfer of modern technologies and the provision of safe alternatives, as future areas of work.

3. Waste

5. Participants suggested that a network should be launched in the Arab region to exchange information, share good practices and build capacity and appropriate regulatory frameworks on waste management. Waste management already forms an integral part of the Arab regional strategy on sustainable consumption and production.

4. Mining

6. In the regional background paper challenges were identified, such as the lack of databases and limited Arab regional cooperation; issues pertaining to Customs and taxation; and the lack of investment in exploration. The need to develop regulations and implement existing legislation concerning the mining sector was noted.

5. Ten-year framework of programmes on sustainable consumption and production

7. Participants discussed an Arab strategy on sustainable consumption and production, developed as a collaborative effort of the League of Arab States, the Regional Office and the Economic and Social Commission, and led by the Regional Office over the past months. The strategy was subsequently approved by the Council of Arab Ministers Responsible for the Environment in mid-November 2009. Energy, water resource management, rural development, education and sustainable lifestyle and tourism were identified in the strategy as priorities for the Arab region. Participants set out draft regional programmes for the strategy during the meeting, based on the mapping tool of the 10-year framework.

6. Green economy

8. A presentation was given on the green economy, which participants welcomed and discussed, giving rise to several comments on how to adapt the initiative to the region. Participants decided to submit a draft resolution on the adoption of the theme of “green economy” for the 2009–2010 environmental regional workplan for the 2010 session of the Executive Office of the Arab Ministers in charge of Environment Affairs. In that regard, they said that an activity framework for a green economy road map for the Arab region would need to be developed under the leadership of the League of Arab States, the Division of Technology, Industry and Economics and the Regional Office, jointly with the Economic and Social Commission.

B. Africa

9. UNEP co-organized with the United Nations Economic Commission for Africa and UNIDO an African expert meeting, which took place from 24 to 26 June 2009 in Addis Ababa, and during which the five Commission on Sustainable Development themes were discussed. The outcomes of that meeting formed the basis for the regional meeting, which took place from 27 to 30 October 2009 in Addis Ababa, and negotiations on the outcome document adopted by participants.

1. Transport

10. Participants noted the needs to harmonize national policies with global and regional initiatives and to minimize the social and environmental impacts of transport by promoting and developing environmentally-friendly transport systems. They also highlighted the prioritization and funding of safety programmes in the transport sector. They said that it was crucial to allocate adequate public funds, in addition to raising external sources from multilateral and bilateral donors, including through development assistance.

2. Chemicals

11. Participants stressed several challenges, such as inadequate awareness of risks and the lack of reliable data, resources and political support. They sought support in gaining access to environmentally sound technologies and safer chemicals, investment in institutions for monitoring and evaluating chemicals and mechanisms to exchange information in the region. They also noted the needs to integrate the sound management of chemicals into national policies for economic growth and poverty reduction; to lay greater emphasis on the involvement of various stakeholders in the design and implementation of chemicals management policies and strategies; and to promote the implementation of the Strategic Approach with regard to chemicals policy and management.

3. Waste management

12. Participants defined various priorities, including: supporting the transfer and dissemination of knowledge and technology; fostering investments in best practices for the environmentally sound management of waste; and providing assistance to African countries to strengthen their national human and institutional capacities for the implementation and enforcement of relevant international agreements.

4. Mining

13. Participants noted the need to ensure that mining regimes in Africa contributed to the creation of equitable and sustainable mineral wealth from a diversified mining industry, which should be integrated into local, national and regional economies through optimized linkages that did not compromise other forms of land use, including environmental, social and cultural considerations. Priorities identified included the broader participation of local communities, mandatory environmental impact assessments, capacity-building in accident prevention and preparedness and financial, technical and management functions.

5. Ten-year framework of programmes on sustainable consumption and production

14. Participants, in their statement, commended regional progress in promoting sustainable consumption and production, but also highlighted the need for coherent national strategies to promote the subject and for its mainstreaming into the criteria of development financing agencies. They completed the mapping tool contained in the global 10-year framework with priorities for Africa on sustainable consumption and production, and identified and prioritized a number of specific actions and projects requiring urgent support from development partners, including building capacity for the development and implementation of national action plans; implementing an African local sustainable

consumption and production initiative; establishing an eco-labelling mechanism for African products; and implementing a regional programme on resource efficiency and cleaner production.

C. Latin America and the Caribbean

15. UNEP worked with the Economic Commission for Latin America and the Caribbean on the background report for the Latin America and the Caribbean meeting, which took place in Antigua, Guatemala, on 26 and 27 November 2009. The five themes were presented and the linkages between the green economy and sustainable consumption and production were discussed. The need to develop that relatively new concept in the context of the region was highlighted.

1. Transport

16. Participants highlighted progress in introducing technological solutions to reduce pollution from transport. They noted, however, that the limited availability of transport infrastructure had serious consequences for the population in rural and isolated areas and that infrastructure investment in the region continued to pose a challenge for Governments. Initiatives on technological innovation and more efficient fuels must be complemented by a restructuring of current transport patterns. Efforts should be focused on an integral view of sustainable mobility for persons and goods, comprising policy on infrastructure, modes of transport and logistics.

2. Chemicals

17. Key issues raised by participants included the needs for capacity-building and resources for the implementation of relevant multilateral instruments; to transfer technology and know-how; and for regional coordination on current processes, in particular in preparation for the extraordinary meetings of the conferences of the Parties to the Basel, Rotterdam and Stockholm conventions and the negotiations on a legally binding instrument on mercury. They also highlighted the needs for the region to implement the Globally Harmonized System of Classification and Labelling of Chemicals to pre-empt the emergence of trade issues as a consequence of unequal application and for additional Global Environment Facility funding, pointing out also the importance of promoting social corporate responsibility.

3. Waste

18. Participants noted that, while regional environmental policy had laid emphasis on solid waste management, resulting in improved practices, major deficiencies remained. National situations varied, but participants identified obstacles in the region as the lack of facilities to treat and dispose of hazardous waste, illegal disposal and dumping and unequal access to waste collection. Public policy must encourage a new perspective on waste, highlighting the opportunities in creating new recycling businesses, exploiting the energy potential of waste and contributing to the mitigation of climate change, among others. National policy should not only provide for sound waste management, but also include strategies to prevent corruption, provide technical means for determining the types of waste and implement training programmes for municipal personnel.

4. Mining

19. Priorities identified by participants with regard to mining included developing specific regulations for small-scale mining and moving towards their effective implementation and oversight. In terms of large-scale mining, participants deemed it necessary to build Governments' capacity to manage effectively the resources generated by mining activity. Creating local or subregional development agencies could be one means of providing an institutional framework capable of handling the wealth generated by the sector. The public sector could also help by facilitating training for stable, professional working groups that would serve as neutral venues for dialogue in the event of conflict. Participants drew attention to the issue of water resources and the need for authorities to implement legislation and regulations and monitor compliance therewith. Another priority highlighted was for the authorities to identify and undertake an inventory of abandoned mining sites to assess the risks posed to populations and ecosystems.

5. Ten-year framework of programmes on sustainable consumption and production

20. Participants identified priorities for sustainable consumption and production that were included in the mapping tool and the final report of the meeting. Those main priorities were: mainstreaming sustainable consumption into national and subregional development plans; focusing on small and medium-sized enterprises; sustainable public procurement; sustainable lifestyles; and the establishment

of a regional information network. Participants recognized the needs to focus on subregional priorities and to strengthen and support national and regional initiatives.

D. Asia and the Pacific

21. The meeting was organized by the Economic and Social Commission for Asia and the Pacific in close collaboration with UNEP, among others. It took place in Bangkok on 30 November and 1 December 2009.

1. Transport

22. Participants highlighted the need to develop integrated transport strategies to deal with complex challenges in the transport sector, along with the importance of using public-private partnerships as an effective implementation mechanism for many transport projects. In further advancing the sustainable transport agenda in the region, the Asian environmentally sustainable transport initiative and the Ministerial Conference on Global Environment and Energy in Transport were mentioned.

2. Chemicals

23. Participants encouraged Governments to commit themselves to sound chemicals management by integrating chemicals management into national development priorities; developing sound institutional and programmatic national frameworks; promoting the ratification and implementation of relevant international conventions; encouraging the implementation of relevant internationally recognized standards, tools and approaches; and promoting the participation of the private sector and non-profit civil society in chemicals management. They highlighted the need for additional training, for the dissemination of safe chemicals management practices and for more preventive policies to deal with accidents and long-term environmental effects.

3. Waste

24. Participants selected greater regional cooperation and exchange of information on national waste management strategies as key areas for future action. They also mentioned as a potential future focus area for regional cooperation the development of guidelines under the Basel Convention and exchange of regulatory information on hazardous waste via the Asia Network for Prevention of Illegal Transboundary Movement of Hazardous Wastes.

4. Mining

25. Policy integration across sectors and strategic sustainability assessments were among the forward-looking conclusions reached by participants, who also put forward the idea of a possible international convention on mineral trade. They raised the ideas of corporate social responsibility and demand management via life-cycle management and industrial ecology approaches.

5. Ten-year framework of programmes on sustainable consumption and production

26. Participants mentioned that clear sustainability targets with indicators were needed. It was insufficient to target the production side of the equation; sustainable consumption patterns should also be promoted. Participants drew attention to many specific initiatives, for example, the needs to develop and implement economic instruments on sustainable consumption and production and for a regionally coordinated education master plan to increase consumers' awareness. Participants identified a series of prioritized, horizontal and sectoral programmes on sustainable consumption and production that were annexed to the chair's summary of the meeting.

E. Europe and North America

27. The Division of Technology, Industry and Economics and the UNEP Regional Office for Europe worked with the Economic Commission for Europe to prepare the meeting for Europe and North America, which took place in Geneva on 1 and 2 December 2009.

1. Transport

28. Participants called for strategies combining various policies and measures: to avoid transport where possible (e.g., by using teleconferencing and through better urban design); for coherence between infrastructure investment and spatial planning; and to shift to cleaner modes of transport. They identified as effective measures the promotion of non-motorized means of transport, such as walking and cycling, the development of supporting infrastructure, including safety measures, and a shift

towards more developed sustainable public transport. A number of participants stressed the importance of innovation in promoting cleaner technologies and cleaner fuels.

2. Chemicals

29. Participants highlighted the needs to raise awareness and take action to reduce the adverse impact of obsolete chemicals and to decrease chemical use in agriculture through sustainable agricultural practices. They recommended that sound chemicals management should be integrated into national overarching sustainable development and poverty reduction strategies and donor country assistance programmes. They considered it probable that global chemicals conventions would need to be further developed and expanded. They highlighted the importance of furthering the implementation of the Strategic Approach, as a framework for building capacities for sound chemicals management and bridging the capacity gap between the developing and the developed world.

3. Waste

30. Participants underlined the importance of promoting the waste hierarchy: prevention should be the first and optimal solution; waste that could not be prevented should be recycled; energy recovery in the waste recycling process should be applied when reuse or recovery were not possible; disposal should be the last resort. They highlighted a range of problems and solutions to the management of electronic, radioactive, organic and plastic waste and recommended that life-cycle product management should be strengthened through the continuing work on chemicals management under the Basel, Rotterdam and Stockholm conventions and the Strategic Approach.

4. Mining

31. Participants agreed that good practice in mining required multi-stakeholder consultation and dialogue, in addition to commitment to corporate environmental and social responsibility and environmental stewardship. Key practices included environmental assessments through the life cycle, long-term monitoring and the protection and enhancement of biodiversity and landscapes. Participants recognized transparency and good governance as prerequisites for sustainable mining, together with long-term planning at all stages in mine development and exploitation. They also stressed the need for effective and efficient approaches to funding mine closure and ensuring the environmental safety of closed mines.

5. Ten-year framework of programmes on sustainable consumption and production

32. UNEP organized an informal regional meeting on sustainable consumption immediately before the implementation meeting to help to develop the region's contribution to the Commission on Sustainable Development's work on this theme. That meeting facilitated the identification of areas for further work on programmes and policies whose design and implementation could be supported by the future 10-year framework. Participants agreed that it was important to have an integrated approach when promoting sustainable consumption and production, working on both consumption and production sides and using the life-cycle approach. They recognized that promoting and implementing sustainable consumption and production required a balanced mix of instruments (regulatory, voluntary, economic and fiscal).

33. In the implementation meeting, participants identified the following priority areas of work for supporting the shift to sustainable consumption and production: modifying unsustainable production processes (including through eco-design); providing more science-based knowledge; undertaking education for sustainable consumption; applying corporate environmental and social responsibility; assisting in designing and implementing national strategies and action plans; promoting sustainable public procurement; and integrating policies into sustainable development strategies at all levels. Participants identified the following priority sectors requiring support for the shift: mobility and transport; housing and construction; food; waste management; sustainable cities and tourism.