The United Nations Commission on Sustainable Development (CSD) was established by the UN General Assembly in December 1992 to ensure the effective follow-up of the United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit. The Commission is responsible for reviewing progress in the implementation of Agenda 21 and the Rio Declaration on Environment and Development; as well as providing policy guidance to follow up the Johannesburg Plan of Implementation (JPOI) at the local, national, regional and international levels. The CSD secretariat is to be found within the Division for Sustainable development (DSD), which is part of the UN Department of Economic and Social Affairs (UN DESA).

Its multi-year programme of work, established in 2003, is organised on the basis of seven two-year cycles, with each cycle focusing on a different thematic cluster of issues. Each cycle is divided into a review year and policy year. The review year evaluates progress made in implementing sustainable development goals and identifies obstacles and constraints in the particular thematic cluster, while the aim of the policy year is to provide policy options and possible actions to overcome these. The issues are addressed in an integrated manner, taking into account economic, social and environmental dimensions of sustainable development. Linkages to other cross-cutting issues are also addressed in every cycle.

CSD sessions 18-19, which will take place in 2010 and 2011, are of particular importance to UNEP, given that the main themes of this cycle - Transport, Waste, Chemicals, Mining, and the 10 Year Framework of Programmes on Sustainable Consumption and Production Patterns – are among the core issues of our mandate.

Key messages have therefore been developed through UNEP’s CSD Task Force that aim to convey our priorities and objectives on each of the five themes. Through the diffusion of these messages during the biennial cycle, we wish to ensure that our priorities for the thematic cluster are duly considered at all levels of the CSD process.

These messages will continue to evolve over the course of the CSD cycle, for example, taking into account the outcomes of the Regional Implementation Meetings and other meetings on the specific themes.
The transport sector, which includes passenger and freight (road, ship and air), is responsible for 24 per cent of global greenhouse gas emissions from fossil fuel sources. It represents approximately 67 percent of world petroleum use and although it is the fastest growing sector with respect to GHG emissions (2.5% yearly until 2020), it has received limited attention from international climate initiatives and support programs. The transport sector should therefore be included as a component of a new climate regime.

The main challenge is to develop a comprehensive, global approach to transport in a low carbon/green economy that combines different programmes and initiatives, including cleaner vehicles, infrastructure and public transport, while addressing issues such as access to transport, congestion, climate change and energy, air pollution, noise and resources. Such a comprehensive strategy should combine, both in the short and long term, policies and measures to avoid transport (for example through better urban design, with people living closer to their work), shift to cleaner modes of transport (for example from cars to public or non motorised transport), and clean the different transport modes (for example cleaner cars and buses).

A macro-economic case should be made for investments in sustainable transport, including the necessary transport infrastructure, focusing on elements such as impact on employment, poverty alleviation, health, GDP growth, resource efficiency and environmental protection. These investments could be promoted by putting in place policies to support sustainable transport, strengthening institutions and capacity, and laying out favourable market conditions.

Global initiatives such as the Partnership for Clean Fuels and Vehicles\(^1\) and the Global Fuel Economy Initiative\(^2\) have made good progress in promoting technology and knowledge exchange for cleaner fleets in developing and transition countries. A global consensus seems to be emerging on fuel economy and cleaner vehicles, and most developed countries and some developing countries have set targets in the range of a 50% efficiency improvement by 2050, in line with IPCC recommendations. The challenge now, however, is to include more developing countries and economies in transition (where vehicle-use is at its greatest expansion) in these programs. Through technical, financial and networking support, countries could develop cleaner and efficient vehicle strategies that would reduce greenhouse gas emissions, reduce urban air pollution, increase savings from avoided imports of oil, reduce health impacts, reduce energy dependence and in general a contribution towards a move to low-carbon/ green economies. Measures could include cleaner fuels standards, limiting the import of older used vehicles, tax incentives, etc.

However, progress in terms of improved fuel and emission technologies is ultimately offset by the ever increasing demand for transport – especially the growth of the global vehicles fleet. Cleaner fuels and vehicles alone will never be enough to reduce the impact of transport on the environment - a move towards cleaner, more sustainable modes of transport is essential. Land use planning and transport strategies should be integrated to encourage patterns that reduce demand and improve the affordability, efficiency and convenience of multi-modal transportation systems, including public mass transportation systems in urban areas.
Many countries, particularly developing countries, lack the infrastructure for clean and public transport, resulting in major social, economic and environmental impacts. There is an urgent need to develop public transport systems such as Bus Rapid Transit and light rail mass transport systems in cities and build capacity at the national and city levels to develop and manage these systems.

1 www.unep.org/pcfv/
2 http://www.fiafoundation.org/50by50/pages/homepage.aspx
By 2020, developing countries are expected to have the highest growth rate for the production of high volume industrial chemicals, increasing their global share to 31%. The consumption of chemicals in developing countries is likewise growing much faster than in developed countries and could account for a third of global consumption by 2020. These changes will increase the potential negative impacts on human health and on the environment in those countries with the weakest capacities to deal with the complex challenge posed by the sound management of chemicals and widen the gap between countries.

While the chemicals sector is a major contributor to national economies, the sound management of chemicals throughout their lifecycle is essential not only to avoid significant risks to human health and ecosystems (along with their associated economic and social costs), but also to maximize the full benefits of their contribution to human well being.

There is presently no consistent, coherent and comprehensive analysis of the totality of the changes in production, use and trade of chemicals, and their potential impacts on human health and the environment. A global outlook on chemicals is required in order to provide a firm basis for decisions on future activities to support the achievement of the 2020 goal that chemicals are to be produced and used in ways that lead to the minimization of significant adverse effects on the environment and on human health.

The environmental, social and economic impacts of the inadequate management of chemicals are not known in many countries. Consequently, national activities for the sound management of chemicals are, in particular in most developing countries, not a priority in their national development strategies and the funding of activities to ensure the sound management of chemicals is therefore very limited. The sound management of chemicals needs to be given higher priority in decision-making and integrated into poverty reduction strategies and other sectoral development plans.

There is an urgent need to reinforce the capacities of these countries in managing risks posed by chemicals and hazardous waste. It is also urgent to make available coherent international tools and guidance relating to chemical risk assessment and management, to chemical accident prevention and preparedness, and reflect the environmental perspective. Assessment tools and methodologies developed need to be adapted to the national environmental, ecological and socio-economic conditions that influence chemicals management decisions in developing countries and countries with economies in transition.

International legally binding instruments are important tools to handle certain hazardous chemicals, such as Ozone Depleting Substances and Persistent Organic Pollutants, and the international community has, at the beginning of 2009, decided that a legally binding instrument on Mercury will be developed. Despite these efforts, the international instruments and processes successfully agreed upon are still confronted with a set of common challenges, including the insufficient use of market-based mechanisms, inadequate legal and technical capacity, lack of access to affordable and safer technologies and alternatives, and especially the need for prioritizing and integrating strategies and plans on chemicals into national development plans. The lack of national coordinating frameworks engaging relevant stakeholders in the sound management of chemicals, including the implementation of international agreements and processes, should also be addressed.
The need for synergies between existing instruments and processes, particularly with the waste-related conventions and the growing urgency to assess and manage chemicals more effectively lead to the adoption in 2006, of the Strategic Approach to the International Chemicals Management (SAICM). As a cross-sectoral and multi-stakeholder initiative to protect human health and the environment, SAICM stresses the need for sound management of chemicals throughout their life-cycle for sustainable development and, as such, it should benefit from greater technical and financial support from various sources including the private sector.

Providing the scientific, technical and policy responses for the sound management of harmful substances related to emerging issues (such as nanomaterials, chemicals in products, lead in paint, and electronic waste) should also be supported, including through the SAICM processes.

Over the past decade, the international community has brought critical chemical and waste-related environmental problems and dangers to the forefront of its policy agenda, however much remains to be done, in particular in addressing the needs of developing countries and in promoting corporate environmental and social responsibility along the supply chain (including in small and medium sized enterprises) in order to better manage risks posed by chemicals and waste. In the global effort to phase out hazardous chemicals, developing countries will need support from the international community in reshaping their economies towards more sustainable industrial development.

Positioning chemical issues in the broader context of environment and development strategies remains essential to effectively raise awareness among key stakeholders, including governments at all levels, the private sector, civil society and development agencies. They should be further mobilized through a cross-sectoral, participatory and partnership-based set of interventions to promote the proactive management of harmful substances and hazardous waste, and to avoid potential problems rather than just mitigating negative impacts once they occur.
Waste Management

Unsustainable patterns of production and consumption are resulting in an increase in both quantity and variety of waste. This rapid increase in volume and type of both solid and hazardous waste as a result of economic growth, urbanisation and industrialisation is becoming a burgeoning problem for national and local governments, particularly in developing countries, which are constrained both in terms of resources and capacity. The negative impacts on the health of surrounding communities, as well as on local environment, in terms of pollution of land, water and air are becoming more acute. Ineffective and inefficient waste management results in green house gas (GHG) and toxic emissions and loss of precious materials and resources.

Waste management and resource recovery from waste are still low on the socio-political priorities of many countries, particularly developing countries, and national and local policies on waste management are not yet comprehensive to cover all types of wastes and all aspects of waste management. In most developed countries, policy frameworks to support resource recovery from waste remain inadequate.

The priority objectives in the field of waste management are to promote waste prevention and minimization and an effective and efficient management of the remaining solid and hazardous wastes, focusing on reuse and recycling and on the recovery of useful materials and energy. In the future, waste has to be valued as a resource and waste management needs to be carried out with a life-cycle perspective. This goes hand in hand with an increasing application by governments of extended producer responsibility, and linking the waste agenda to sustainable consumption and production policy instruments, particularly in developed countries.

Huge amounts of waste are generated during the whole life cycle of products, and preventive techniques like Cleaner Production and Life Cycle Management have proved to be effective and efficient to minimize waste generation. However, they have yet to be widely applied by governments and by business and industry, in particular small and medium sized enterprises. Current international partnerships promoting Cleaner Production and Life Cycle Management therefore need to be strengthened.

The economic, environmental and social benefits, as well as the local applicability, of an Integrated Solid Waste Management (ISWM) approach with a focus on the 3Rs (reduce, reuse, recycle) have been demonstrated, but need to be widely recognised. Simultaneously, intensive efforts are to be made in building the capacity of all relevant stakeholders to develop and implement ISWM plans at the local level, and in providing policy makers in developing and transition countries with tools for financing waste management. Local authorities, who are at the forefront of solid waste management, often need institutional capacity building and the delegation of responsibilities and of financial resources from governments. Current demonstration projects could evolve into a Global Initiative on Integrated Solid Waste Management based on the 3R approach.

Emerging waste streams such as electronic waste, waste plastics, and used oils and chemicals require special attention aiming at a high rate of recovery worldwide. Therefore, an assessment of the quantities and characteristics of these waste streams needs to be carried out so as to identify programmes and appropriate environmentally sound technologies to promote material and energy
recovery. This will help to augment resources, while substantially reducing the final volumes and the toxicity of waste. For this to happen, a comprehensive programme for the transfer of these know-how and technologies has to be developed.

There is broad consensus among experts that the quality of global data needs to be improved, not only on the current amount of different types of waste generated, but also on the expected future amounts, in order to develop projections which will allow adequate planning for resource recovery and substitution of virgin materials. The International Panel for Sustainable Resource Management has started work on estimating the benefits of metal recycling now and in the future, as the basis for more efficient urban mining practices. However, similar work has to be carried out for a number of other materials and eventually for the global material flows.

Developing the macro-economic case for policies in sustainable materials management as well as in integrated waste management, for example in terms of employment, business canvas and investments, is important to apprehend the social, environmental and economic gains.

Under the Green Economy Initiative, an extensive research on waste recycling has been launched and the results will be disseminated to decision-makers, in particular in developing countries and countries in transition. On the whole these efforts would contribute to sustainable development with the associated benefits of improved public health, poverty alleviation, the creation of decent jobs, improvements in living standards, the reduction of GHG emissions and other pollutants, and the extended life of resources.
Mining

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 disbursed as wastes generated by the extraction, production and consumption. The mining sector is a strategically important sector that provides resources that are required for economic development. Over the last century, the extraction of construction minerals increased by a factor of 34 while the extraction of ores/industrial minerals increased by a factor of 27\(^1\).

While the availability of a rich mineral resource base provides unique development opportunities, the expansion of the sector in most mineral-rich developing nations has led to sub-optimal economic outcomes and underutilization of its potential contribution to sustainable development. This is mainly due to the undervaluation of resources, the ineffective redistribution of benefits between the companies, the states and the local communities, and the weak economic interlinkages of the mining sector with the broader national economy.

The main challenge is to develop a comprehensive, global approach to mining in a low carbon/green economy that combines

(i) a macro-economic case for investments in sustainable mining, focusing on elements such as impact on employment, poverty alleviation, health, GDP growth and resource efficiency

(ii) advice on how to address challenges and opportunities to mining such as efficient resource use, energy use in a climate mitigation and adaptation context, management of toxic substances, protection of ecosystems, labor conditions and relationships with communities, financial and technical risk, drivers and opportunities for sustainable industrial production

(iii) demand-side pressure, business self-regulation, and green supply chain management thorough the application and development of good practices for the improvement of local economic, social and environmental conditions such as Corporate Environmental and Social Responsibility (CESR). A global CESR framework for mining along the supply chain (based on the Global Reporting Initiative) and its wider application by all mining operators would facilitate the mainstreaming of CESR in strategic planning and development of the mineral sector, including through financing institutions.

The allocation of mineral exploration rights therefore needs to be based on full strategic sustainability assessments that include the fulfillment of national development goals and other regional and international commitments and obligations, the social and economic benefits for national economies and local communities and comprehensive closure and post-closure management plans.

There has been an increased level of environmental destruction and impacts on basic ecosystem services and biodiversity due to the expansion of mining operations into environmentally sensitive and fragile areas. Moreover, weak closure and post closure provisions are leading to an increased number of abandoned and/or orphan mining sites around the world. The management of waste from the extractive industries should also include the reuse or recycling of materials and minerals in waste (urban mining), which would increase resource efficiency.
The number of industrial accidents resulting in serious negative environmental, health and economic impacts in mining communities is still a growing source of concern in most countries. Hence there is a growing need to enhance the capacity of the mining sector to develop and implement industrial accident prevention and preparedness programmes (see APPELL for mining\textsuperscript{1}).

The spontaneous and unorganized expansion of Artisanal and Small Scale Mining and the continued alienation of the sector in most developing countries are causing significant damage to the environment. The environmental and human risks posed by the unsafe handling of hazardous chemicals in the Artisanal and Small Scale Mining sector is also causing significant damage to local communities. The positive contribution of Artisanal and Small Scale Mining to sustainable poverty reduction at the community level could be ensured through a consolidated formal engagement and support to the sector.

The sustainability of the mining sector can only be ensured through the development and implementation of comprehensive strategies that enhance its contribution to the sustainable development of the countries that own the resource through an effective promotion of economic interlinkages resulting in an equitable management of the global value chain. In order to facilitate the transition towards sustainable mining, the feasibility of launching a ‘Global Initiative for Sustainable Mining’ should be considered. The purpose of such initiative would be to:

- Facilitate policy dialogue between the public and private sectors and international development institutions;
- Assist the development of sustainable mining regimes based on existing good practices and new innovative approaches;
- Promote the development of product standards and recognition mechanisms that facilitate the greening of mineral products;
- Encourage increased and efficient reuse and recycling of metals and mineral products that can form the basis for more efficient urban mining practices.

\textsuperscript{1} Krausmann F. et al, *Growth in global materials use, GDP and population during the 20th century*, Ecological Economics, Volume 68, Issue 10, 15 August 2009, Pages 2696-2705

\textsuperscript{2} http://www.unep.fr/scp/sp/process/
Sustainable Production and Consumption and the Ten-Year Framework of Programmes on SCP (10YFP)

A shift to Sustainable Consumption and Production (SCP) is necessary to decouple economic growth from environmental degradation, and thus sustain economic development and the human welfare gains which flow from it (e.g. job creation, poverty reduction, improvement in health and education), while protecting ecosystems and enhancing natural and cultural diversity. Governments at all levels, businesses and consumers all need to make changes in their policies, activities and choices respectively to achieve the shift to SCP.

The Ten-year Framework of Programmes’ focus on supporting regional and national initiatives on SCP will contribute to the development of the Green Economy and will be an important implementation tool for the policies, management practices, investments, technologies and capacity building activities necessary to make this shift.

The aim is to develop a 10 Year Framework of Programmes (10 YFP) on SCP, that will offer good practices, policies, partnerships and capacity building to enable the public and private sectors to act efficiently to achieve SCP, around the world. The development process of the 10 YFP should also increase awareness of the values underlying sustainable lifestyles and sustainable livelihoods. The Marrakech process which is an informal multistakeholder expert forum created in 2003, has helped design and implement such policies, identify regional priorities and provided inputs for the 10YFP.

Practical experience shows that a shift to SCP can deliver important social benefits, enabling countries, companies and communities to “do more and better, with less”, increasing net welfare gains from economic activities by reducing resource use and depletion and pollution. Growing demand for more sustainable products is also creating new markets that “first movers” on SCP can turn into new jobs and revenue streams.

Key challenges during the discussions at CSD 18 and 19 will be to communicate these economic, environmental and social gains to key decision makers in governments and business, particularly in some resource intensive sectors, and to build political support for elaboration of the 10 YFP, so as to engage the broad range of partners in government, business and civil society necessary for its implementation.

Desired Outcome

The desired outcome is to secure an ambitious 10 Year Framework of Programmes on SCP from CSD 19, which could consist of both:

- A political declaration on SCP and elements of the 10YFP outlining a vision, objectives, support mechanisms and monitoring to support the shift to SCP; and
- A series of programmes on SCP at the global and regional levels, developed from the outcomes of consultations with governments and other stakeholders on their priorities and needs for achieving SCP.
Possible activities within the 10 Year Framework of Programmes on SCP

Individual programmes within the **global or regional frameworks**, to which governments and stakeholders would **voluntarily** commit, could include the following:

- mainstreaming SCP in development strategies or design and implementation of national SCP action plans;

- support for the design and implementation of laws and regulations, fiscal and economic instruments, land use and infrastructure policies, pricing and marketing tools, and education and awareness raising policies and campaigns;

- activities focusing on specific resource intensive sectors, such as agriculture/food, building and construction, transport, tourism and industrial manufacturing, and on conserving and sustainably using key resources such as energy and water;

- demonstration projects, guidelines on policy design and implementation and capacity building and training activities that will shape the key policies and regulations applied by governments which affect consumption and production patterns;

- activities influencing market forces, voluntary action by business and consumer choice, including the use of economic instruments, public and private procurement, corporate environmental and social responsibility and information tools and awareness raising;

- promotion of technological innovation for SCP and the application of existing resource efficient technologies.

- promotion of policies, management practices and consumer choices with a life-cycle perspective from design to disposal or recycling/re-use.

1 http://www.unep.fr/scp/marrakech/