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Thematic cluster for the implementation cycle
2010-2011 (policy session)

Policy options and actions for expediting progress in implementation: interlinkages and cross-cutting issues

Report of the Secretary-General

[1] E/CN.17/2011/1.

Summary:

Strong interlinkages and interlocking relationships among the five issues exist in this thematic cluster. Policies and measures aimed at one issue may have co-benefits for other issues and should therefore be considered through an integrated approach in order to achieve long-term progress. Risk assessment and risk reduction are relevant for both chemicals and hazardous waste management, while0 transport connects nerve centres of economic activity and human population, with high relevance to transportation of chemicals, minerals and waste. Significant adjustments to policies and management practices will be needed in all these four sectors to shift to sustainable consumption and production patterns. Such interlinkages are highlighted in the present report with a view to developing a menu of policy options and measures of optimal effectiveness. Where appropriate, the interlinked aspects of the issues are also reflected in the separate thematic reports. International cooperative efforts can help to ensure that urgent and effective action is taken to build on the interlinkages among the issues in order to further implementation of the sustainable development agenda.

Contents

I. Introduction

1. At its eighteenth session, which was the review session of the fourth implementation cycle 2010-2011, the Commission on Sustainable Development undertook an evaluation of progress made in the implementation of Agenda 21,[2] the Programme for the Further Implementation of Agenda 21,[3] and the Plan of Implementation of the World Summit on Sustainable Development (Johannesburg Plan of Implementation),[4] while focusing on the identification of constraints and obstacles in the process of implementation with regard to the current thematic cluster. The issues covered in this cluster are transport, chemicals, waste management, mining, and the 10-Year Framework of Programmes on Sustainable Consumption and Production (10YFP). The report of the review session[5] includes a chairperson's summary that reflects the constraints and obstacles and possible approaches and best practices for the implementation of those intergovernmental agreements, as well as the way forward identified by the Ministers who attended the high-level segment.

2. The present report is a contribution to the Commission's consideration of policy options and possible actions to address the constraints and obstacles to implementation identified in the report of the review session. At its nineteenth session, the Commission on Sustainable Development will take policy decisions on practical measures and options for expediting implementation for the selected thematic cluster of issues, taking account of the discussions of the intergovernmental preparatory meeting, reports of the Secretary-General and other relevant inputs.

3. The report draws on a number of sources, including national reports, the outcomes of regional implementation meetings, and contributions from major groups, regional commissions and United Nations specialized agencies, funds and programmes. As close linkages exist among the five issues of this thematic cluster, the relevance of those interlinkages for policy options is considered here. Cross-cutting issues identified at the eleventh session of the Commission are also considered in the present report. This report should be read in conjunction with each of the thematic reports.

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

[3] General Assembly resolution S-10/2, annex.

[4] *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 1, annex.

[5] E/2010/.

II. Interlinkages among thematic issues

4. A holistic approach to the thematic cluster can yield better results by addressing the interlinkages among the issues, especially when considering policy options, undertaking actions and implementing on-the-ground projects. It is also important to note that important interlinkages exist between the themes of the current cycle and those of previous cycles, for example, human settlements, water, agriculture and climate change, to name a few.

5. A life cycle perspective helps elucidate the linkages among the themes of the current cycle, with sustainable consumption and production as a unifying theme encompassing at least key aspects of each of the other themes. A life cycle perspective reinforces the responsibility of actors along the whole chain of a product's life cycle to consider their contribution to its sustainable production and consumption, including consideration of any “external” effects on the environment.

6. Natural resources are extracted through mining in different parts of the world. They are transported to serve as input for the production of materials and chemicals that are then go into industrial products of many varieties, which are consumed and used, and which at the end of their useful life become waste. If hazardous chemicals are part of products, the waste can be hazardous as in the case of electronic products, such as computers, mobile phones, and televisions. If waste is not adequately managed, it can harm humans and ecosystems and chemicals can be released to the environment. Transport is an increasing part of the life cycle of products due to the ever increasing distances that many materials, chemicals, products and also wastes travel.

7. Addressing these themes together facilitates the development of policy recommendations for resource efficiency, with a view to decoupling economic growth from resource use and environmental impacts throughout the product life cycle.

8. Interlinkages with the issues of other thematic clusters are also important. For example, pesticide management is used to introduce sustainable and environmentally sound agricultural practices that reduce health and environmental risks associated with the use of pesticides. To this end, the Food and Agricultural Organization (FAO) has introduced the International Code of Conduct on the Distribution and Use of Pesticides. Additionally, with the help of the World Health Organization (WHO), the FAO Panel of Experts on Pesticide Residues in Food and the Environment considers available recognized residue data collected through supervised trials. Based on these data, maximum residue levels are proposed for individual pesticides in individual food and feed items or well-defined groups of commodities.

9. Energy is another important link across this thematic cluster as it is an important component in managing chemicals and waste and is used in mining and transport. Waste can also provide a source of energy. Sustainable use of energy and use of renewable energy can reduce greenhouse gas emissions that are linked to climate change, and which are associated with activities in all four sectors, especially transport.

10. Even though volatile and historically high oil prices have raised concerns about energy security and reduced fossil fuel dependence, an energy revolution based on widespread deployment of low-carbon technologies can be an answer to tackle the climate change challenge. *Energy Technology Perspectives 2010* shows early signs that such an energy technology revolution is under way. Investment in renewable energy, led by wind and solar, is increasing substantially. In transport, major car companies are adding hybrid and full-electric vehicles to their product lines and many governments have launched plans to encourage consumers to buy these vehicles. Yet these encouraging developments represent only the first small, fragmented steps on a long journey towards transforming the way we supply and use energy. The trends that drive growth in energy demand and carbon dioxide (CO_2) emissions continue to surge forward at an unrelenting pace[6].

11. Water is another important interlinkage with the current thematic cycle. For example, it is important to protect watercourses as well as terrestrial ecosystems from pesticides or industrial chemicals. In waste management, in developing countries many landfills are often dumps near water that is used in households and also treatment of waste water is an important element to safeguard human health and the environment.

12. In transport, ships often generate a number of waste streams that include sewage, grey water, oily bilge water, ballast water. If not properly treated and disposed of, such wastes can become a significant source of pathogens, nutrients and toxic substances potentially threatening to human health and aquatic life, particularly in environmentally pristine coastal areas.

13. Together with energy, water is necessary for extraction and processing of minerals and metals. Using more sustainable methods of production such as for example steel production from scrap in electric arc furnaces reduces water consumption by 40 per cent compared with steel production from iron ore in a blast furnace[7]. Surface mines can contaminate water sources, while underground mines have problems with acid mine water drainage. Additionally, the disposal of tailings from mining has been a pervasive cause of environmental damage and is polluting water sources. According to the World Resources Institute, almost one third of all active mines are located in stressed watersheds; and more than one third are in areas that may be predisposed to water quality problems[8].

[6] Energy Technology Perspectives 2010, IEA, 2010
[7] Secretary-General's report on mining for CSD 18 - E/CN.17/2010/7
[8] Ibid.

14. Owing to their small size and their geological, topographical and climatic conditions, small island developing States (SIDS) are among a group of countries which are faced with major constraints in terms of the quantity and quality of freshwater resources. This is particularly true of low-lying coral islands, where groundwater supplies are limited and protected only by a thin, permeable soil. Thus, contamination of water supplies by improper waste disposal or management of agricultural chemicals poses a particular problem for SIDS. Likewise, the dependence of their economies on marine resources and coastal tourism means that marine waste – whether from local land-based activities, transported across the seas or originating from ships – also poses a threat to local economies.

15. The Pacific Hydrological Cycle Observing System was established in 2007 to build the capacity and infrastructure of Pacific small island developing States. A Resource Book and a Handbook on Integrated Water Resources Management in Small Island Developing States, which gathers input and experience from SIDS in the Caribbean, the Pacific and the AIMS Region, will be published by UNEP in 2011.

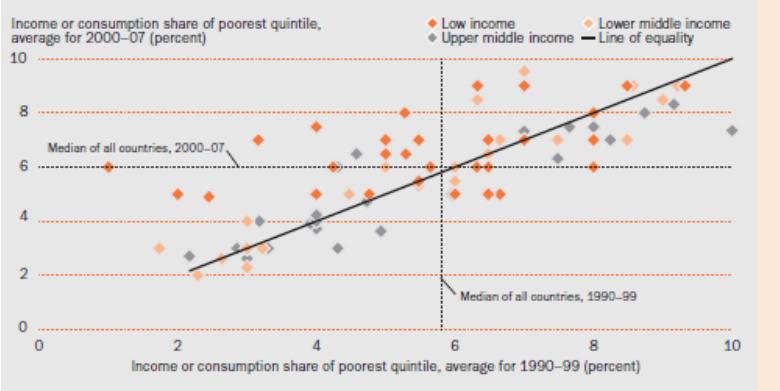
III. Cross-cutting issues

16. A key challenge for the future is how to maintain upward convergence of living standards together with downward convergence (or shrinkage) of ecological footprints.

17. Current unsustainable use of natural resources at a global level is endangering not only the state of the environment, essential ecosystem services and biodiversity, but also human health and well-being of present and future generations. It is, therefore, necessary to change consumption and production patterns in order to address challenges of poverty eradication, long-term food security, climate change and biodiversity loss. The sustainable consumption and production agenda is very broad, but resource and energy efficiency improvements are at its heart. It also includes measures to improve safe management of chemicals and hazardous waste as well as to minimize waste and maximize recycling, and to support sustainable mining practices and sustainable transport systems.

18. The poorest 20 percent of the population accounts for just 6 percent of total income or consumption. Since 1990 that share has increased most in low-income countries but it has tended to shrink in upper middle-income countries. (See Figure 2). It is necessary that consumers in developed countries and wealthy consumers everywhere take the lead in moving towards sustainable patterns of consumption. Production systems also need to move towards sustainable patterns of resource use, with reduced pollution and waste. Developed country enterprises can chart the way forward, supporting their suppliers and partners around the world with technology and know how.

Figure 2



Source: World Development Indicators 2010, World Bank

19. Enhancing human and social capital through education and inclusive social participation, cost-effective, reliable, and affordable infrastructure services including sustainable transport, strengthening sound management of chemicals as well as hazardous and solid waste by emphasizing prevention and managing natural resources in an integrated and holistic manner will result in development that will benefits the overall prosperity of society. This also requires strengthening an enabling environment for implementation, including through participatory decision-making by all stakeholders including women, access to finance and global and regional markets, improving educational opportunities and adequate access to information available to experts but also to the general public in order to minimize health and injury risks from chemicals, waste, mining and transport.

20. All five current themes relate to the Millennium Development Goals (MDGs). Thus, sound management of chemicals can reduce child mortality (Goal 4) and improve maternal health (Goal 5). Annually more than 3 million children under 5 years die from preventable environment-related causes. Elimination of the use of mercury in health care and consumer products, moving away from solid indoor fuels, use of insecticide treated bed nets, improved water and sanitation systems, traffic slowing measures and a host of other interventions can successfully reduce children's environmental related deaths and suffering in many countries. Therefore, a global plan for action has been called for by the WHO Third International Conference on Children's Health and Environment, to be developed by WHO and UNEP.[9]

21. Sound management of chemicals can lead to improved human and environmental health, increased economic security, and income opportunities. UNEP has joined forces with UNDP in a partnership aimed at integrating the sound management of chemicals into development plans such as poverty reduction strategy papers and strategies to meet the MDGs. This involves establishing the

[9] http://www.ceh2009.org

links between poverty and sound chemicals management and identifying the policies and programmes needed to bring about pro-poor chemicals management. It also entails looking at potential chemical risks arising from the implementing sections of the development plans, and trying to mitigate such risks at the planning stage.

22. Waste management especially the part connected to sanitation and safe drinking water contributes to environmental sustainability (Goal 7).

23. The small island developing States face particular problems of waste in view of their low environmental and socio-economic carrying capacities. Current waste management practices have resulted in the degradation of coral reefs, seagrass beds, mangroves and coastal zones, as well as fresh water resources, resulting in health warnings about disease and risks from contaminated water and food supplies. Such developments threaten tourism, fisheries and even food security.

24. Many poor people depend on waste streams to earn their livelihoods. Innovative and often small scale waste management schemes, converting waste into resources, contributes directly and indirectly to poverty alleviation and gender equality.[10]

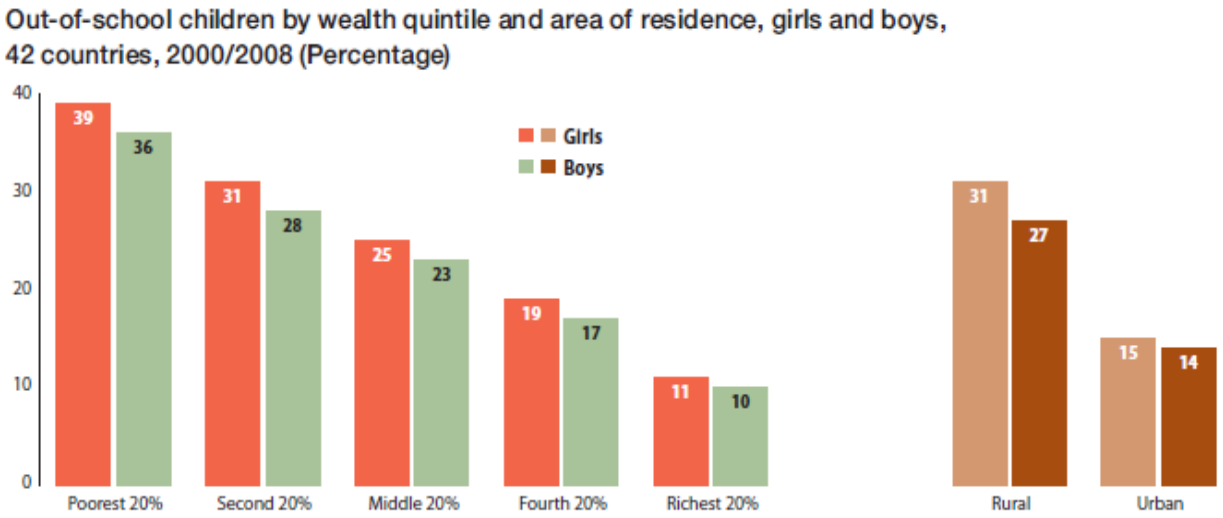
25. According to recent national estimates by the United Nations Framework Convention for Climate Change (UNFCCC), the waste sector, including waste water, produces on an average 2.4% of national GHG emissions. Anaerobic degradation of organic materials in landfills and unwarranted dumpsites is a key source of these emissions, creating methane. However, the waste sector is in a unique position to transform from being a minor source of GHG emissions to becoming a major saver of emissions. Recovering energy and other useful products from waste has been possible in recent time due to considerable technological breakthroughs, which have led to implementation of Waste to Energy (WtE) projects. Prevention and recovery of wastes (i.e. as secondary materials or energy) reduces emissions in other sectors of the economy. Energy recovery projects have been the recent focus of Government investments in developed countries. The WtE market was estimated at US$ 19.9 billion in 2008 and, according to forecasts, the market will grow 30% by 2014.[11]

26. Transport is an important element in achieving universal primary education (Goal 2). Household data from 42 countries show that rural children are twice as likely to be out of school as children living in urban areas, partly because of poor transport[12] (See Figure 3). In countries with lower access rates to roads, the percentage

[10] UNEP
[11] BCC Research 2009
[12] Ibid.

of girls enrolled in schools is lower. Schools may be far and hard to reach, and many households prefer to fund the transport cost for boys to attend schools[13].

Figure 3

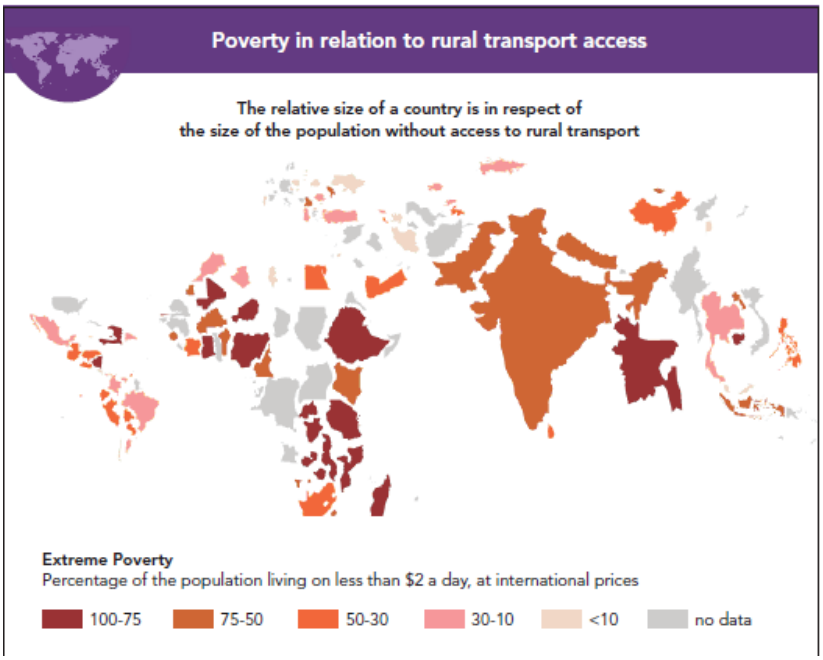


Source: MDG report 2010

27. Statistical analysis of the relationship between poverty incidence and road development shows that a decline in poverty rates can — to a significant degree — be attributed to improved road access. (See Figure 4) In addition to the positive effect of universal road access on poverty, dynamic effects on social and economic development may include: 1) possible abandonment of subsistence production by many rural people in favour of migration to urban centres; 2) changes in rural land values as roads bring previously isolated areas into the market economy; 3) new-found profitability of certain investments; and 4) improved flow of market-related information with benefits for economic efficiency.[14]

[13] Trends report, DESA/DSD, New York, 2010
[14] Ibid.

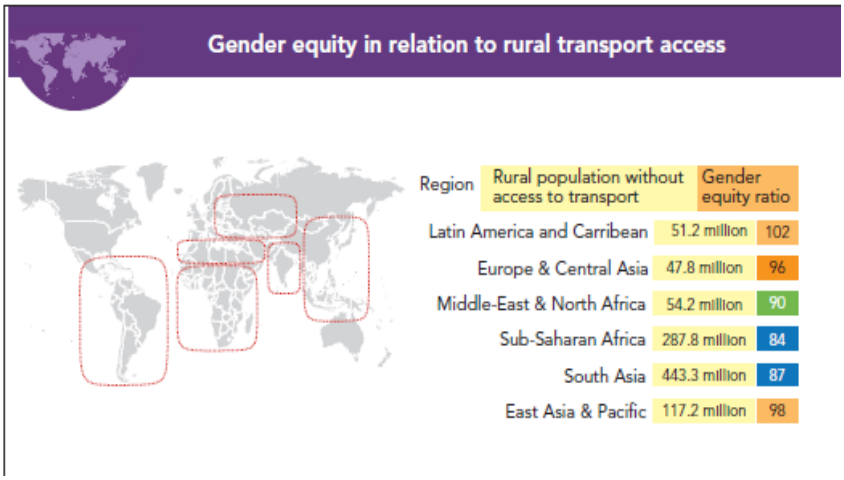
Figure 4



Source: Trends Report DESA/DSD, New York 2010

28. Studies have also shown a correlation between gender equity and transport (See Figure 5). In areas where access to roads and transport is better, gender equity is greater. This also affects safety of women and maternal health.

Figure 5



Source: Trends Report DESA/DSD, New York 2010

29. Volume of transport matters most to economic activity but transport mix is as important for the environment. Developing countries now account for the majority of greenhouse gas emissions from electricity and heat as well as industry, while developed countries still account for a majority of emissions in the transport and building use sectors.[15] Switching to more sustainable modes of transport in developed countries thus has a larger immediate potential to contribute to climate change mitigation in particular and pollution reduction generally. In future, most private transport growth will be in developing countries, so they too will need to stimulate rapid growth of public and other low-emissions transport.

30. SCP also contributes to poverty eradication and development in a number of ways. For example, greater efficiency in resource use and reduced environmental impact from the production of goods and services over their life cycle result in improved productivity and reduced costs. This allows more to be done with less, and the provision of cleaner and more resource efficient goods and services (such as water, energy and food) allows more people to meet their basic needs. More resource efficient production practices allow consumers in developing countries to meet more of their needs (therefore, consume more) by using the same amount or even less resources – in this way more efficient and sustainable production effectively expands the resource base available to the poor.[16]

31. SCP also offers the possibility to “leapfrog” to more resource-efficient, environmentally sound and competitive technologies, bypassing inefficient, polluting, and ultimately costly phases of development. This could improve competitiveness and access of local products to national, regional and international

[15] Ibid.
[16] http://www.unep.fr/scp/poverty/faq.htm

markets, increasing the possibilities for generating new revenue streams and economic growth, which in turn, if distribution policies and activities are in place, can contribute to poverty eradication.

32. By better understanding social impacts along the life cycle, potential improvements can identified for global product chains. The UNEP publication "Guidelines for Social Life Cycle Assessment of Products" provides a framework to assess and report about social and socio-economic impacts and benefits of products along their life cycles from the extraction of the natural resources to the final disposal[17].

33. Health and sustainable development are inextricably linked. In this context, health implies concern for the quality of life in both the present and the future for poor and rich alike. It is also dependent on consumer's choices regarding lifestyle such as nutrition, smoking, using of psychoactive drugs and alcohol.

34. Health is a cross-cutting issue in all of the themes of this cycle. Over 25 per cent of the global burden of disease is linked to environmental factors, including exposure to chemicals. Some 800,000 children each year are affected by lead exposure. Unintentional poisonings kill an estimated 355,000 people each year. In developing countries, such poisonings are associated strongly with excessive exposure to and inappropriate use of toxic chemicals, including pesticides[18].

35. Experiences and efforts in promoting the sustainable management of chemicals indicate that overcoming the challenges of integrating the sound management of chemicals into development plans depends largely on greater understanding and the linkages between health and environment. With this in view, UNEP and the World Health Organization joined efforts to organize a process aimed at catalyzing policy, and the institutional and investment changes required to reduce environmental threats to health in support of sustainable development. Tools and methodologies have been developed to undertake country Situation Analysis and Needs Assessments for the identification of national priorities, leading to the development of national plans of joint action.

36. Improper waste disposal practices (e.g. open dumps, which are the most common disposal method in developing countries) have led to many undesirable health effects such as skin and eye infections, respiratory problems, vector borne diseases like diarrhoea, dysentery, typhoid, hepatitis, cholera, malaria and yellow fever.

[17] For the Guidelines on Social Life Cycle Assessment please see here: http://www.unep.fr/scp/publications/details.asp?id=DTI/1164/PA

[18] WHO, Preventing disease through healthy environments: Towards an estimate of the environmental burden of disease, 2006, available at www.who.int/quantifying_ehimpacts/publications/preventingdisease/.

37. Gender is another important cross-cutting issue, which interlinks the five themes. For example, women tend to leave a smaller ecological footprint than men due to their more sustainable consumption patterns. Men's lifestyles and consumer patterns, whether they are rich or poor, tend to be more resource-intensive and less sustainable than women's (Johnsson-Latham, 2006). Impressing a more feminine footprint would result in a smaller impact on the environment. Women are more likely to recycle, buy organic food and eco-labelled products and place a higher value on energy-efficient transport. They make more ethical consumer choices, paying closer attention to issues including child labour and sustainable livelihoods and are more apt to buy socially labelled goods[19].

38. Women also bare a disproportionate burden for maintaining sustainable lifestyles. Thus, while they may want to increase the sustainability of their consumer choices, they need assistance in reducing their impacts on the environment. For instance, a study of gender and sustainable consumption in Sweden finds that household and family duties remain a female responsibility in most families. As such, women are often pressed for time, making the pursuit of sustainable consumerism and lifestyles difficult. It notes that, while gender equity policies have supported the development of greener lifestyles, policy also needs to focus on how to induce producers to deliver high-quality sustainable products at atttractive prices[20].

39. On the production and corporate side, gender perspectives may also be relevant to sustainability. At the highest level of private enterprise, there are still very few female CEOs of the world's largest corporations, so it is difficult to know with any confidence how they would change the way such companies are run. Some have hypothesized, however, that they would be more likely to mainstream corporate social responsibility (CSR) into business decision making[21].

40. At the shop floor level, women are increasingly visible in export-oriented sectors in middle-income developing countries, where they comprise up to 90% of workers (See Figure 6). Females now tend to dominate in low-skill, labour-intensive jobs in textiles, clothing, pharmaceuticals, household goods and toy production in developing countries[22]. Thus, good corporate practice needs to be gender-sensitive, especially in such labour-intensive industries, addressing the particular concerns of women in the workplace along with the broader issue of decent work which concerns both genders.

[19] Gender and Sustainable Development, OECD, 2008

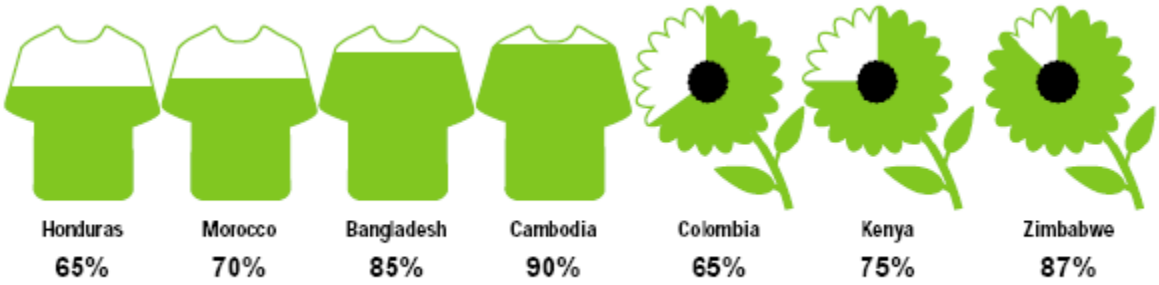
[20] C. Isenhour, M.Ardenfors (2009), Gender and sustainable consumption: policy implications, *International Journal of Innovation and Sustainable Development, 4:2/3, 135-149.*

[21] See: http://business-ethics.com/2010/10/07/1624-when-women-rule-the-c-suite/

[22] OECD, op cit.

Figure 6

Women as share of total workers in Export Production of Clothing and Flowers



Source: Gender and Sustainable Development, OECD, 2008

41. Governments can promote more sustainable corporate behaviour through supporting sustainability reporting systems and international instruments. Some countries such as France and Sweden are moving to make reporting mandatory.[23] More companies are now publishing corporate sustainability reports to inform consumers and other stakeholders of their environmental and social values and practices at home and abroad. While the CSR approach to promoting sustainable production – focused on large multinational corporations – is gaining ground, it is only gradually trickling down to small- and medium-scale enterprises along global supply chains. Many goods are still produced using underpaid child or female labour, environmentally-damaging processes or neglecting basic health and safety rules. On the positive side, multinational companies are increasingly being held accountable for the production impacts of their suppliers, including the environmental, safety and health, and worker rights dimensions. More international codes of conduct are addressing reporting and monitoring of how a company's product range supports sustainable production along the global supply chain.

42. Education is another important cross-cutting issue, especially in the area of consumption and production patterns. Rethinking and revising formal and informal education from pre-school to university to include more principles, knowledge, skills, perspectives and values related to sustainable consumption is important now and in the future. Value changes and changes in world view generally occur only gradually, so what is done by way of education today may only show tangible benefits some time in the future.

43. One recent commentary highlights the challenges facing educators and education in the coming decades, noting: "... we need an educational culture and practice adequate

[23] Carrots and Sticks - Promoting Transparency and Sustainability: An Update on Trends in Voluntary and Mandatory Approaches to Sustainability Reporting (2010, English, 94 pages)(http://www.unep.fr/scp/business/publications/

and appropriate to the volatile, densely interconnected, and dangerously vulnerable world that we have created. Instead of educational thinking and practice that tacitly assumes that the future is some kind of linear extension of the past, we need … an anticipative education, recognising the new conditions and discontinuities which face present generations, let alone future ones: the massive challenges of global warming, species extinction, economic vulnerability, social fragmentation and migration, endemic poverty, the end of cheap energy, and more positively, the rise of localism, participative democracy, green purchasing, ethical business, and efforts to achieve a low carbon economy. The heart of such an education is an ecological orientation. Other descriptors which help capture this sense are 'holistic', 'systemic' and 'participative'; they indicate a redesigned educational paradigm that is in essence relational, engaged, ethically oriented, and locally and globally relevant."[24]

44. At a practical level, some international initiatives have been developed to assist the integration of sustainable consumption into education and raise awareness about sustainable lifestyles. These include the UNEP/United Nations Educational, Scientific and Cultural Organization (UNESCO) YouthXchange Programme on sustainable lifestyles aimed at educators and youth, initiatives and tools developed by the international Task Forces on Education for Sustainable Consumption and Sustainable Lifestyles under the Marrakech Process on SCP[25], and also multi-stakeholder partnerships and initiatives led by civil society organizations (such as the Partnership for Education and Research about Responsible Living – PERL, the Consumer Citizenship Network, or the Center for Environmental Education). Tools have also been designed to support education and awareness-raising for sustainable lifestyles and consumption, such as: Here and Now! Education for Sustainable Consumption. Recommendations and Guidelines developed by UNEP and the Task Force on Education for Sustainable Consumption in cooperation with the United Nations Decade on Sustainable Development and Hedmark University College in Norway, in the framework of the Marrakech Process on SCP; the UNESCO "Guidelines and Recommendations for Reorienting Teacher Education to Address Sustainability" at the global level: and the Portuguese "Guide to Consumer Education" at the national level.[26]

45. In all respects, SCP, with its holistic approach, is a key to achieving sustainability as regards mining, transport, chemicals and waste. The Ten Year Framework of Programmes on Sustainable Consumption and Production (10YFP), called for at the World Summit on Sustainable Development in 2002, provides an opportunity for addressing the themes of the current thematic cycle together in a

[24] S. Sterling (2008), Sustainable Education – Towards a Deep Learning Response to Unsustainability, *Education for Sustainable Development,* 6, Spring.
[25] The first is led by Italy, the second by Sweden; See www.unep.fr/scp/marrakech/taskforces/education.htm and www.unep.fr/scp/marrakech/taskforces/lifestyles.htm
[26] See Secretary-General's report "A 10-year framework of programmes on sustainable consumption and production patterns" (E/CN.17/2010/8)

holistic and comprehensive manner. It aims to develop a policy framework for resource efficiency, with a view to decoupling economic growth from resource use and environmental impacts throughout the product life cycle. The 10 YFP can allow for coordination and cooperation between new and existing initiatives on SCP, as well as provide a platform for sharing, replicating and scaling up good practices, and supporting the development of policies, partnerships and capacity building to accelerate the shift towards sustainable consumption and production. The programmes for the 10YFP, which could emerge from CSD19, could focus on key SCP policies and cross-cutting programmes as well as programmes specific to given stages of the life cycle. Programmes could be envisaged for inclusion on the current themes of waste management, transport, chemicals and mining.

IV. Means of implementation

46. Over the past two years, the world has witnessed the emergence of multiple global crises related to food, fuel and finance. Instability in energy and commodities markets, global food shortages and water scarcity have, most recently, been overshadowed by a financial and economic crisis whose recessionary impacts continue to be felt in many parts of the world. Adding to the situation's complexity is climate change, a phenomenon that is exacerbating the impact of these crises. The effects are felt worldwide and have specific implications for the achievement of sustainable development and the MDGs. While it is clear that the international community and national governments face multiple and serious challenges, the situation also presents genuine opportunities to make a dramatic shift from "business as usual"[27].

47. The world economy is recovering from severe downturn, but the recovery is still very fragile and uneven. The global jobs crisis has not subsided, as can be seen from persistent high unemployment rates in the major developed countries and increased rates of underemployment and vulnerable employment in many developing countries.

48. The perceived need among many donor countries to start fiscal consolidation sooner rather than later could put resource availability under further pressure at a juncture where sustained support to progress on the MDGs is crucial. The prospect of concluding a development-oriented Doha Round in the near future still seems highly uncertain. Improved access to new technologies has become increasingly pressing, especially those technologies necessary for climate change mitigation and adaptation.

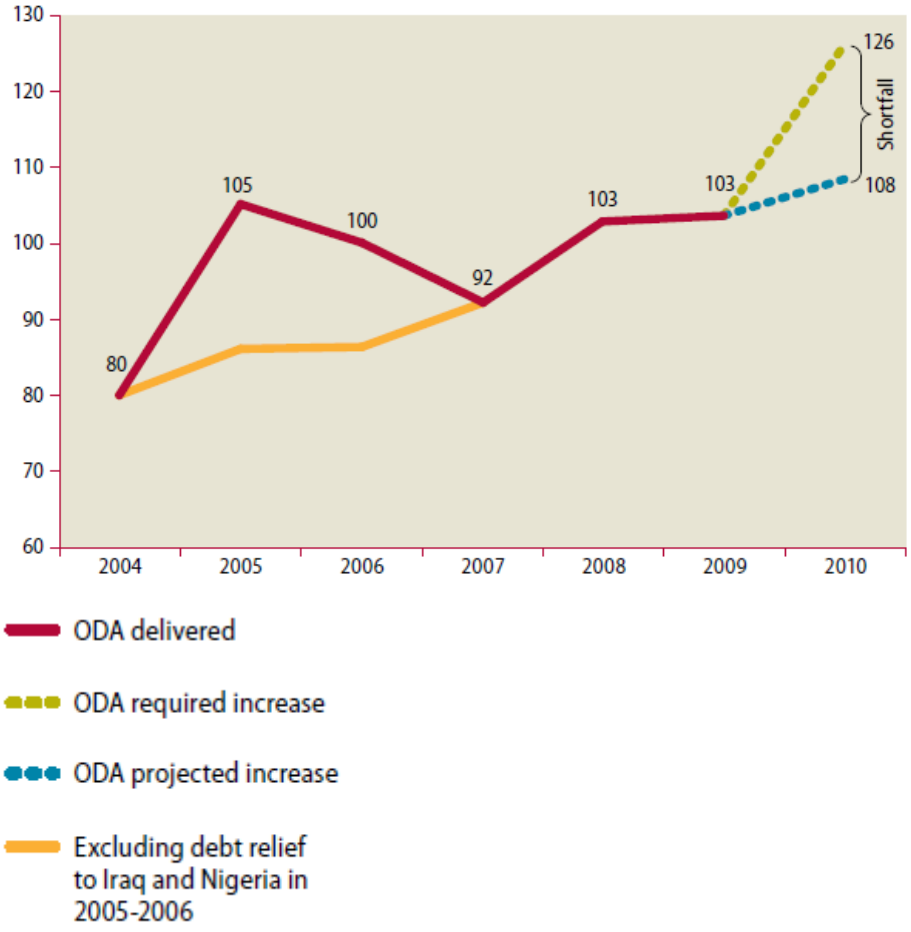
49. Based on the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD) secretariat's preliminary estimates for 2009 and its review of aid budgets for 2010, DAC members as a whole were not on track to meet the 2010 aid volume targets (see Figure 7). Indeed, OECD has projected that total

[27] See UNEP/GCSS.XI/10/Add.1, 14 Dec. 2009.

ODA in 2010 will fall $18 billion short (in 2004 prices and exchange rates) of the updated Gleneagles target. Translated into more recent 2009 prices, the shortfall is $20 billion. No intermediate targets have been adopted for the years after 2010, leaving the United Nations target as the remaining applicable benchmark, against which the delivery gap in 2009 is $153 billion[28].

Figure 7

Official development assistance since 2004, in relation to 2010 commitments
(billions of 2004 dollars)



Source: MDG Gap Task Report 2010

50. The global financial and economic crisis increased the need for many developing countries to secure substantial additional, quick-disbursing financial support. The international community responded with substantially increased funding and reform of multilateral financial facilities. In the case of the IMF, in January 2010, countries that qualified to draw concessional resources were given enlarged access to a simplified set of

[28] MDG Gap Task Report 2010

facilities. Multilateral development banks also sharply boosted their lending in the face of the crisis. In particular, the International Development Association of the World Bank committed $14 billion in loans in 2009, a 20 per cent increase over 2008[29].

51. Delivery on aid targets for LDCs has been disappointing. The most recent data show the overall DAC ODA effort to be 0.09 per cent of donor GNI in 2008, well below the lower bound target of 0.15 per cent[30]. Due to persistent calls to scale up, aid to Africa has been growing significantly, but not enough to meet the Gleneagles target. To meet that target, Africa's ODA in 2009 would have had to exceed $61 billion.

52. Two other groups of countries, small island developing States (SIDS) and landlocked least developed countries (LLDC), require special developmental attention. According to OECD data, SIDS received almost $4 billion in ODA in 2008, an amount that has grown relatively slowly over the past decade (3.2 per cent annually, on average, in 2008 prices and exchange rates). LLDCs received almost $23 billion in ODA in 2008, reflecting an increase of 9 per cent annually since 2000 due to the fact that Ethiopia and Afghanistan are in this group as the second and third largest aid recipients in the world[31].

53. The most recent comprehensive survey of the implementation of the Paris principles—national ownership, alignment, harmonization, managing for results, and mutual accountability – has shown that, of the 12 numerical targets contained in the Paris Declaration, the target of aligning and coordinating 50 per cent of technical assistance projects with country programmes had been achieved in 2007. Donors had also made good progress towards the goal of untying all aid. Further, from 2005 to 2008, developing countries had made good progress in improving their public financial management systems (36 per cent of countries had improved their score for public financial management, against a target of at least 50 per cent). Yet, much less progress had been made towards the remaining targets, in particular regarding the use of local country systems, the predictability of aid flows and the reduction of the transaction costs of providing aid.[32]

54. Another focus of attention has been ODA transparency. Lack of relevant and timely information on aid flows impedes the ability of Governments to plan, budget and evaluate the impact of aid in their countries. Together with governmental financial transparency, ODA transparency strengthens domestic accountability and the participation of citizens, let alone parliaments, in decisions about programmes and projects, and also facilitates holding Governments to account for development results.

55. A need for mutual accountability is also very important, but according to data available, by the end of 2009, only seven countries had established fully functioning

[29] See OECD, "Development aid rose in 2009 and most donors will meet 2010 aid targets," 14 April 2010
[30] MDG Gap Task Report
[31] Ibid
[32] OECD, 2008 Survey on Monitoring the Paris Declaration: Making Aid More Effective by 2010, Paris, OECD, 2008

mutual accountability mechanisms[33], and resultant changes in provider behaviour have been uneven. Country-level experience shows that national aid policies and joint performance frameworks can help improve mutual accountability[34].

56. Regarding south-south cooperation, Governments of developing and transition economies that inform the OECD of their aid effort reported about $9.6 billion of assistance in 2008. Governments of transition economies in Eastern Europe provided over $800 million, and Turkey provided almost that amount. While this accounts for only about 10 per cent of DAC bilateral aid, the volume has been growing strongly. For example, the flow of aid grew by almost half in constant prices and exchange rates from 2006 to 2008. In addition, it appears that roughly at least another $2 billion has been provided by non-reporting countries, primarily by China but with substantial aid also having been provided by India and the Bolivarian Republic of Venezuela. Significant contributions in aid have also been made by Brazil, Nigeria and South Africa. Furthermore, despite the strain of the global financial and economic crisis on many of these providers, it is likely that total contributions rose again in 2009. If pledges are kept, it is thought that total flows could reach $15 billion in 2010[35].

57. Our current economic model is consumption-led, production-driven, and GDP-measured. It has clearly improved well-being for many societies over time, but its operations have also created significant negative "externalities" in the form of global environmental risks (e.g. climate change) and widespread ecological scarcities (e.g. freshwater shortage). Moreover, it fails to recognize these significant externalities in the accounts of society, which are largely focused on GDP as the key macro-indicator of progress. As a result of these and other factors, our economic activity depletes natural assets whose ecosystem services are a key part of the well-being of the poor, and thus it risks exacerbating persistent poverty. The global risks it creates – both social risks and environmental risks – represent serious threats to the well-being of present and future generations.

58. The concept of a green economy in the context of sustainable development and poverty eradication, which will be one of the themes of the UN Conference on Sustainable Development in 2012, could provide an alternative economic model. A green economy has be defined by UNEP as an economy characterized by substantially increased investments in economic sectors that build on and enhance the earth's natural capital or reduce economic scarcity and environmental risks. These sectors include renewable energy, low carbon and public transport, energy efficient buildings, cleaner technologies and manufacturing processes, improved waste management, etc. A green economy is therefore of relevance to all themes of the current CSD cycle. Thus, shifting to a green economy implies stimulating investments in more resource efficient, sustainable production, which in principle should improve welfare by "doing more and better with less". Sustainable

[33] Afghanistan, Cambodia, Mozambique, Rwanda, the United Republic of Tanzania, Viet Nam and Yemen
[34] MDG Gap Task Force
[35] Ibid.

production practices reduce resource use and depletion and result in less pollution. Likewise, spurring demand for more sustainable products through the promotion of sustainable consumption can create new markets for businesses adopting sustainable production practices, resulting in increased revenue streams and new jobs.

59. Industries producing basic materials—iron and steel, chemicals, cement, aluminium, and pulp and paper—are among the most energy-intensive industries. It may be difficult to regard these heavy industries as potentially "green." However, reducing their environmental impact, and especially their carbon footprint, is a critical task. Increased use of secondary materials rather than raw materials offers substantial energy savings. Equally, transport which is vital for daily economic activities is a source for many environmental, economic and social costs. These include congestion, energy consumption and greenhouse gas emissions, resource depletion, damage to human health and well-being through air pollution, noise, and traffic accidents.

60. Concerns have been raised in various international fora, and in particular in the context of the CSD and preparations for the United Nations Conference on Sustainable Development in 2012, that green economy measures adopted unilaterally or differentially could lead to pressures for green trade protectionism, possibly in the form of green standards, subsidies, and border tax measures.

61. On the other hand, a transition to a green economy can present trade opportunities for developing as well as developed countries in certain economic sectors. Brazil, for example, has a strong comparative advantage in bio-ethanol. Examples of such opportunities include the rapidly growing global markets for organic agriculture and biodiversity-based products that can create both economic and environmental benefits. Moreover, trade financing and trade facilitation may play an important role in assisting developing countries to access global markets for green goods and services. It is essential to explore the linkages between trade and green economy to ensure that the multilateral trade system can foster freer trade in environmentally sound technologies and products, improved market access for developing countries, and technology transfer from developed to developing countries, whilst also avoiding green protectionism.

Trade can play a critical role as a connector between sustainable production and sustainable consumption, two essential aspects of a transition towards a green economy. A well functioning international trade system could foster greater access to markets for environmentally-friendly and environmentally-enhancing goods and services. Such market creation and market access have the potential to benefit all countries, developed and developing countries alike.

62. Market-driven product information tools such as voluntary labelling and standards provide one mechanism for tackling unsustainable consumption and

production patterns and practices. These tools provide information about product externalities to consumers whose willingness to pay for more sustainable products create sa market incentive to producers. Standards and labelling can thus constitute a useful policy tool for governments to achieve sustainability objectives in a more flexible and acceptable manner than some forms of command-and-control regulation. With increasingly globalized supply chains, they have potential for profound influence on the global market structure and functioning. It is imperative that their wider use be accompanied by support measures to assist small-scale producers in developing countries to obtain certification at affordable costs.

63. To increase the effectiveness of consumer information tools as a global market tool for continuous environmental improvement and social progress, there is a need for a more systematic and harmonized methodology that will provide a common language to define what makes products sustainable. This can be done through creating a global collaborative initiative bringing all relevant stakeholders and groupings of consumer oriented informational systems together through a coordinated learning process. The objective will be to identify, agree and promote common principles on how to communicate sustainability information in a legitimate and practical way. Transparency of standards setting processes, and inclusiveness by giving space for priorities and challenges of developing countries, should be among the principles to enhance the development potential of these tools.

64. Communicating sustainability information of products needs relevant data. UNEP's Life Cycle Initiative has developed a global framework for environmental life cycle impact assessment and a publication on life cycle management as a business guide to sustainability. The activities are supported by targeted capacity building to regional and national networks of life cycle experts in developing countries. Ongoing activities on databases will serve as the basis for future exchanges to build compatibility between databases worldwide and support the development of national/regional databases in developing countries and emerging economies.

65. Another important issue is sustainable public procurement (SPP). While it may be accurate that some export commodities and goods (such as fossil fuels, non-certified timber or energy intensive electronic appliances) can be impacted by the adoption of SPP, it is also widely recognized that developing and emerging countries have the ability to adjust and could even benefit from greener and socially responsible procurement practices. Governments and corporations engaged in sustainable procurement generally provide sufficient lead time to allow markets to adjust and for suppliers to meet the requested specifications at a reasonable cost. Thus, far from limiting trade flows, the greening of international supply chains could be part of the process of enabling developing countries to acquire the necessary expertise, skills and technologies needed to improve the sustainability of their own production methods and technologies. Sustainable sustainable procurement policies are increasingly employed in both developed and developing

countries. Given the size of government procurement budgets, this can be a powerful market maker for more sustainable products. International cooperation in developing sustainable procurement policies and systems has advanced considerably over the past decade in part as a result of the Marrakech task force on sustainable public procurement but also as the result of such private sector initiatives as the International Green Purchasing Network.

66. It can be seen that partnerships are essential to achieve sustainable development goals. Many challenges that developing countries are facing regarding greening their economies, addressing impacts of climate change and natural disasters call for extended partnerships that go beyond traditional ones. Thus, for example, the Leading Group on Innovative Financing for Development, which now includes 55 member countries, 5 observer countries, 16 international organizations and a number of non-governmental networks and organizations from the South and North, has come together to launch initiatives such as the international air ticket levy in order to show that it is politically possible to mobilize significant additional funds through innovative means of financing. Private foundations from developed and developing countries, along with millions of individuals of both large and small means, have also been making a growing contribution. According to the OECD, cross-border grants for development assistance by private voluntary agencies totaled almost $24 billion in 2008.[36]

67. Another partnership that provides scientific assessments regarding how to decouple economic growth from environmental degradation is the International Panel for Sustainable Resource Management. It is a partnership designed to bring together academia and decision makers both from developing and developed countries, in government, civil society and the private sector, to support science-based decision making. It is also initiating a capacity building programme to support the development of scientific assessment on SCP and Resource Efficiency in developing countries. Since its launch in 2007, the Resource Panel has grown to include 29 experts and has launched three assessment reports to address policy makers' needs on biofuels, anthropogenic metals stocks and the environmental impacts of production and consumption, focusing on primary products and materials.

68. A Joint Programme on Promoting Resource Efficiency and Cleaner Production (RECP) in Developing Countries and Transition Economies has been established by UNEP and UNIDO. This programme has a strategic goal to upscale the implementation of RECP approaches through the expansion of the National Cleaner Production Centres (NCPC) network and targeted capacity building to support existing NCPCs and new RECP service providers. The joint programme will also serve as a platform for promoting global knowledge and technology transfer through South-South and North-South collaboration.

[36] OECD, *Development Cooperation Report 2010*, op. cit., table 13.

69. The Partnership for Clean Fuels and Vehicles (PCFV), with a Clearing House housed by UNEP, was launched at the WSSD to assist developing and transitional countries to reduce vehicular air pollution through the promotion of lead-free, low sulphur fuels and cleaner, more efficient vehicles. PCFV has around 120 partners from government, civil society, the private sector, international organisations and institutions of higher learning. It has used a global - regional - national approach, in which a global consensus is first developed (for example, with respect to the importance of phasing out leaded fuel), then regional awareness raising workshops are held, to build consensus within a region, after which the global and regional recommendations are presented at the country level.

V. Towards a Coherent and Robust Framework for Implementation of CSD-19 Decisions: possible elements

70. As is well-known, the ultimate goal of sustainable development is steady progress towards a future of universally shared human well-being and prosperity within the finite resources of the planet. Sustainable development is based on the knowledge that there is an ultimate limit to the growth of material consumption, but no limits to improvements in quality of life, prosperity or social well-being. The urgent goal is to achieve the development transition — to raise the living standards of poor countries and households, which will need an increase in material consumption to meet their basic needs — while ensuring that critical ecosystem limits are not crossed. Accelerating the growth in living standards of the poor, while decelerating or reversing the impact — in particular of high-income consumers — on the natural resources of the planet, will need to proceed in tandem. This will depend on a global decoupling of growth in economic activities (production and consumption) from the negative environmental impacts which too often accompany them.

71. Sustainable consumption and production is, together with poverty eradication and protecting the natural resource base, at the heart of sustainable development, as the JPOI notes. The SCP agenda encompasses important aspects of the challenges in each of the thematic areas of the current CSD cycle: chemicals, waste management, transport and mining. Thus, a 10YFP on SCP can be useful in bringing coherence and coordination to initiatives aimed at improved resource efficiency, de-linking of economy and environment, and waste and pollution minimization across these as well as other themes and sectors.

72. The Commission on Sustainable Development (CSD) is the principal policymaking institution for sustainable development at the global level. Among other contributions, the Commission has actively solicited the participation of major groups in policymaking and promoted a particular institutional form, multi-stakeholder partnerships, to implement sustainable development.

73. The most important challenge is how to implement CSD decisions. A number of steps have been undertaken since the last cycle (CSD16/17), including policy dialogues on implementation at the CSD regular sessions and follow-up from the Chairs of the previous cycles.

74. This current CSD cycle offers a unique opportunity to learn from recent experiences and build coherent programmes which would make possible monitoring and concrete targets to achieve goals set by the CSD in its policy decisions. This could conclude among other things:

- Identifying priority actions and initiatives at different levels;
- Supporting peer-to-peer learning;
- Mobilizing support for scaling up successful initiatives and programmes;
- Encouraging economic and financial policies and public and private investments, including both international and domestic, which promote sustainability in the themes of this cluster;
- Providing an enabling environment for and supporting research, innovation and technology cooperation and transfer to address the challenges associated with each of the themes and with promoting SCP across all themes.