

Chairman's Summary

Fifteenth Session of the Commission on Sustainable Development

Policy Options and practical measures to expedite implementation of energy for sustainable development, industrial development, air pollution/atmosphere and climate change

1. Ministers and delegates at the 15th Session of the Commission on Sustainable Development undertook extensive negotiations on a wide range of issues related to the interlinked themes of energy for sustainable development, industrial development, air pollution/atmosphere and climate change. These negotiations were carried out on the basis of a revised Chairman's draft negotiating text which was prepared drawing on the initial Chairman's text emanating from the Intergovernmental Preparatory Meeting (IPM) held from 26 February to 2 March 2007 and comments and discussion by delegates over five sessions during the Commission's first week of deliberations. Negotiations on the document started on Thursday 3 May and were to have concluded on Tuesday 8 May 2007, but continued throughout the High Level Segment until the last day of the session.

2. There was broad agreement that the issues of energy for sustainable development, industrial development, air pollution/atmosphere and climate change are of fundamental importance to achieving the goals of sustainable development and the Millennium Development Goals. Delegates achieved near unanimity on the industrial development and air pollution/atmosphere themes, but remained divided on key points in the energy and climate change chapters. As a consequence, it was necessary for the Chairman to present a decision text for consideration by the Commission, reflecting the Chairman's best efforts to reconcile the remaining conflicting viewpoints in a fair and balanced manner. All the major political groupings, save one, accepted the Chairman's proposed decision text. Germany, on behalf of the EU members, as well as one country attending as an observer, rejected the decision text because agreement could not be reached on time-bound targets for renewable energy, the integration of energy policies into national planning by 2010, a formal review arrangement for energy issues in the UN and an international agreement on energy efficiency. As a consequence of not reaching agreement, this Chairman's summary of the negotiations is being presented in lieu of the decision document, which is attached as an Annex to the summary.

3. Many delegates pointed to the existing body of resolutions, decisions and conference outcomes that provide the background and framework for decision-making on energy for sustainable development, industrial development, air pollution/atmosphere and climate change. These include the Rio Declaration on Environment and Development, including Principle 7 on "common but differentiated responsibilities," Agenda 21, the Programme for the Further Implementation of Agenda 21, the Johannesburg Declaration on Sustainable Development and the Plan of Implementation of the World Summit on Sustainable Development (Johannesburg Plan of Implementation, JPOI), the Monterrey Consensus of the International Conference on Financing for Development, the Declaration of Barbados and the Programme of Action for the Sustainable Development of Small Island Developing States, the Mauritius Declaration and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States, the decisions of the Ninth session

of the Commission on Sustainable Development, the Hyogo Framework for Action, 2005-2010: Building the Resilience of Nations and Communities to Disaster, adopted by the World Conference on Disaster Reduction, held in Kobe, Hyogo, Japan, from 18 to 22 January 2005.

4. Attention was called by many countries to the continuing need for integrating economic development, social development and environmental protection as interdependent and mutually reinforcing pillars of sustainable development, and that poverty eradication, changing unsustainable patterns of production and consumption and protecting and managing the natural resource base of economic and social development are overarching objectives of, and essential requirements for, sustainable development.

5. Countries also stressed the need for commitment to achieving the internationally agreed development goals, including those contained in the United Nations Millennium Declaration, and in the outcomes of the major United Nations conferences held, and international agreements reached since 1992, including the outcome of the 2005 World Summit, recognizing the continuing urgent need for actions to achieve these goals.

6. Many emphasized that the issues of energy for sustainable development, industrial development, air pollution and atmosphere and climate change are strongly interlinked and need to be addressed in an integrated manner, taking into account economic, social and environmental aspects, related sectoral policies and cross-cutting issues as identified at the eleventh session of the Commission, as well as specific national, subregional and regional circumstances and legal frameworks.

7. The special needs of Africa, least developed countries, landlocked developing countries and small island developing States was stressed, given the particular development challenges they face.

8. The importance of mainstreaming gender considerations, in particular the role of women in management and decision-making, at all levels, was seen as necessary for implementation of the interlinked issues of energy for sustainable development, industrial development, air pollution/atmosphere and climate change.

A. Energy for Sustainable Development

9. It was recognized that energy is crucial for sustainable development, poverty eradication and achieving the internationally agreed development goals and that achievement of the Millennium Development Goals (MDGs) and implementation of the JPOI must be urgently and substantially accelerated. It was generally acknowledged that access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services is crucial, particularly for developing countries. There was general acceptance of the need to further diversify energy supply by developing advanced, cleaner, more efficient, affordable and cost-effective energy technologies, including advanced and cleaner fossil fuel technologies and renewable energy technologies.

10. There was considerable discussion on the issue of fossil fuels and their role in the energy mix. While it was emphasized that fossil fuels would continue to play a dominant role in the energy supply for decades to come, some countries stressed that every effort should be made to diversify the energy mix giving far greater attention to rapidly increasing the share of renewable energy in the energy mix.

11. While a number of countries stressed the need to substantially increase the global share of renewable energy sources with the objective of increasing its contribution to total energy supply, they also wanted to go beyond simply recognizing the role of national and voluntary regional targets and initiatives, and to establish time bound targets in this regard. The mention of time bound targets proved to be one of the areas where agreement could not be reached.

12. Mention was made of the development of carbon capture and storage and enhanced oil recovery technologies with developed countries accelerating their development in contributing to the reduction of greenhouse gas emissions.

13. Many countries stressed the need for making greater use of effective policy tools to ensure that energy policies are supportive of developing countries' efforts to eradicate poverty and to integrate diversified energy policies into national sustainable development strategies, poverty reduction strategies and national development plans.

14. The use of improved market signals, removing market distortions, restructuring taxation and phasing out harmful subsidies, where they exist, taking into account the specific needs and conditions of developing countries was seen as promoting energy systems compatible with sustainable development while minimizing possible adverse impacts on countries' development.

15. The need to accelerate access to sustainable energy services to the poor, including sustainable rural electrification programmes, in particular in rural and remote areas in developing countries, including least developed countries, landlocked developing countries and small island developing states (SIDS) and African countries was widely recognized as well as the need to adopt incentives to encourage increased investment by the public and private sectors to provide sustainable, improved energy services and infrastructure particularly for the poor, in urban, peri-urban and rural areas, with special attention to women.

16. It was recognized that greater energy efficiency would require efforts to accelerate the development, dissemination and deployment of more efficient energy technologies with particular attention to increasing efficiency and productivity in the power and heat sectors, through better utilization of generation capacities, co-generation, lowering energy transmission losses; demand management, fuel switching, heat recovery, interconnection or national electricity grids, the establishment of power pools and greater electricity trade. This would include promoting energy efficiency policies and programmes, at the national level, including energy auditing schemes and certification, system optimization, appliance and equipment performance and labels for products used in residential, commercial, and industrial sectors.

17. Promoting and strengthening energy efficiency building codes and encouraging financial and technical support for improving insulation, lighting and natural ventilation in public, residential,

and commercial buildings, including the integration of energy efficiency into public procurement policies and procedures as well as increasing efficiency in the industrial sector, including oil and gas extraction, processing, storage, loading, dispensing and transport, and reducing gas flaring and venting was stressed.

18. Some countries proposed initiating a process that would lead to an international agreement on energy efficiency that could cover issues such as sharing information, research, regulatory cooperation, education, training and finance. Other countries wished only to promote international cooperation on these issues. No consensus could be reached on initiating a formal agreement process.

19. A number of countries favored including a reference to nuclear energy as an energy source capable of meeting energy security needs while reducing CO₂ emissions. Others were reluctant to open the issue, noting that the reference in the CSD-9 decision is still relevant, and that the text under discussion referred to cleaner and advanced energy technologies which, in the view of some, includes nuclear energy. Many countries expressed concern about nuclear safety issues and management of radioactive wastes, although an improvement in these areas, in recent years, was noted.

20. While there was recognition of the desirability of a specific review of energy issues within the context of CSD in the coming years, there was a considerable divergence regarding who, how, when and in what detail such a review should be conducted. Some were of the view that one or two days in 2010 and 2014 should be devoted to monitor and follow up the implementation of decisions on energy for sustainable development, and its means of implementation. Other countries proposed more formal and detailed review arrangements, but no decision could be reached on undertaking such a review or its modalities.

21. The Chair's proposed decision text includes actions on a number of issues which delegations agreed *ad referendum* are needed to enhance regional, sub-regional and international cooperation, such as, increasing energy access in urban, rural and remote areas; facilitating resource mobilization and, enhancing energy availability and efficiency; supporting implementation of energy policies in the framework of national sustainable development strategies; developing and deploying renewable energy technologies and advanced energy technologies, including cleaner fossil fuel technologies; strengthening initiatives on bioenergy, including biofuels; implementing national and regional energy efficiency programmes, including investment in, and the transfer of, modern energy efficiency technologies; strengthening CSD Partnerships for Sustainable Development; strengthening cooperation between national and regional energy institutions; encouraging regional and international financial institutions (IFIs) to expand, and the Global Environment Facility (GEF) to continue their support for energy efficiency, energy saving, renewable energy and advanced energy technologies; cooperating in the field of generation, transmission and distribution of energy; supporting national efforts to adopt standards and labeling for energy-efficient appliances and consumer equipment; improving energy production and transport infrastructure, including pipeline, transmission and distribution facilities; improving the functioning, transparency and information related to energy markets and enhancing regional and international dialogue and understanding between energy producing and consuming countries.

B. Industrial development

22. There was recognition that industrial development is crucial for economic growth, eradicating poverty and employment creation, as well as the achievement of the internationally agreed development goals, including the Millennium Development Goals. Managing the natural resources base in a sustainable and integrated manner is essential for sustainable development. Increasing resource use efficiency and enhancing technological innovation offer opportunities to reduce costs, increase competitiveness and employment as well as de-link economic growth and environmental degradation. In this regard, the role of business and industry is important. International financing and technology cooperation and transfer are important to developing countries and their businesses and industries to facilitate adoption of cleaner, more efficient technologies. Industrial development is closely linked to the further integration of developing countries and countries with economies in transition into the global economy.

23. The Chair's proposed decision text includes actions on issues on which delegations agreed *ad referendum*, such as creating an enabling environment for sustainable industrial development; enhancing domestic environmental governance; adopting improved environmental management practices and environmentally sound technologies; enhancing the mobilization of technical and financial resources for basic infrastructure; supporting technological upgrading for sustainable industrial development; enhancing efficient and sustainable use by industry of natural resources and energy; strengthening business capacity for small and medium-sized enterprises; promoting sustainable tourism, including eco-tourism; improving social and environmental performance through voluntary innovative management and reporting practices; enhancing voluntary public-private corporate environmental and social responsibility and accountability; promoting sustainable patterns of consumption and production by all countries and promoting effective voluntary business and consumer actions to enhance sustainable consumption and production.

24. Discussion on sub-regional, regional and international cooperation included consideration of actions, agreed *ad referendum*, on the need to encourage continued international efforts to support developing countries in building capacities for environmental impact assessments; pursue progress in the field of sustainable consumption and production patterns through full commitment to the Marrakech process; improve market access for products of importance to developing countries by reducing or, as appropriate, eliminating tariffs, including the reduction or elimination of tariff peaks and tariff escalation as well as non-tariff barriers; work towards a successful completion of the Doha Round of WTO negotiations; support trade-related capacity building in developing countries; support technology transfer on favourable terms, including on concessional and preferential terms, as mutually agreed; strengthen North-South, South-South and triangular technology cooperation and promote and disseminate activities relating to trade and investment opportunities in developing countries, including SIDS.

C. Air Pollution/Atmosphere

25. Air pollution was seen as having serious adverse impacts on the quality of life, in particular on human health, the environment and the economy. Therefore an integrated approach is needed to tackle both indoor and outdoor air pollution, which takes into account the related environmental, economic and social consequences. Mitigation efforts should be better integrated

into national development planning processes. Indoor air pollution from traditional biomass cooking and heating is a poverty-related issue whose effects are most strongly felt at the household/local level, particularly in developing countries by women and children. Industry and various forms of transportation may contribute significantly to air pollution.

26. The Chair's proposed decision text includes actions on a number of issues on which delegations agreed *ad referendum*, such as the need to accelerate the transition from inefficient utilization of biomass to cleaner energy sources, technology, and appliances for cooking and heating; develop strategies for sustainable urban and land-use planning; promote the establishment of country and regional air quality standards; improve control of emissions through the establishment of emission limit values from different sources to mitigate air pollution; improve urban air quality through utilization of cleaner fuels and technologies; promote less polluting public and mass transport systems; encourage the switch to more fuel/energy-efficient vehicles; encourage improved inspection and maintenance requirements for vehicles; improve fuel and vehicle efficiency and the use of technologies that reduce emissions; improve information on sources and health impacts of indoor air pollution; improve collection, compilation and analysis of data; provide financial and other resources to support programmes that address adverse health impacts and increase successful approaches and best practices and partnerships to reduce indoor air pollution;

27. The Chair's proposed decision text also includes actions on a number of issues which delegations agreed *ad referendum* are needed to strengthen regional, sub-regional and international cooperation for improved air quality and control of trans-boundary air pollution as well as encouraging the sharing, on a voluntary basis, of regional and sub-regional experiences that address trans-boundary air pollution; increasing cooperation on collection, management, and dissemination of sound and updated scientific data; promoting policies to reduce air pollution, the use of ozone depleting substances and improvement of air quality; implementing multilateral environmental agreements; ratifying or acceding to the Vienna Convention and the Montreal Protocol and its amendments; addressing illegal traffic in ozone depleting substances under the Montreal Protocol framework; strengthening systematic observation of the Earth's atmosphere by means of satellite, aerial and in-situ monitoring systems; phasing out the remaining use of leaded gasoline, and working to reduce sulphur content in fuels and supporting, as appropriate, international monitoring programmes.

D. Climate Change

28. Climate change was recognized as a global sustainable development challenge with strong social, economic and environmental dimensions. The recent findings of the IPCC regarding the impacts of climate change on sustainable development were seen by many as a cause for concern. Climate change impacts all countries, but was noted to be particularly severe for developing countries, especially Africa, LDCs, LLDCs, and SIDS, which are particularly vulnerable, given their exposure and inadequate means and limited capacities to adapt to its effects. Noting the contribution of human activities to climate change, countries highlighted the need for urgent attention and further action by the international community, in accordance with the United Nations Framework Convention on Climate Change, recognising that social and economic development and poverty eradication are the overriding priorities for developing

countries. The UNFCCC is the key instrument for addressing climate change. Deliberations by the CSD are meant to complement and support, not duplicate, the work of the UNFCCC and its Kyoto Protocol.

29. A critical point of difference between countries concerned which issues were best left to discussion within the UNFCCC and which could be taken up by the CSD. Points where agreement could not be reached included calling particular attention to Principle 7 of the Rio Declaration on “common but differentiated responsibilities,” discussing possible commitments under UNFCCC, making reference to arrangements after 2012, identifying new and additional financial resources for mitigating climate change, referencing the provision of technical and financial resources to developing countries in each policy bullet, developing insurance schemes by developed countries for minimizing impacts of climate change on developing countries, making reference to sustainable production and consumption patterns and enhancing dialogue between the Kyoto Protocol and Montreal Protocol on ozone-depleting substances that are also greenhouse gases.

30. The Chair’s proposed decision text includes actions on a number of issues on which delegations agreed *ad referendum*, such as continuing support to developing countries, including through provision of financial and technical assistance, particularly to Africa, LDCs, LLDCs and SIDS, to address their climate change adaptation challenges and priorities; supporting early warning, risk management and disaster reduction and response measures for developing countries; integrating lessons learned and experiences derived from disaster risk reduction activities into adaptation measures; supporting the efforts of developing countries to reduce emissions from deforestation and forest degradation, and promoting the sustainable management, conservation and enhancement of carbon sinks and reservoirs.

31. The importance of meeting all the commitments and obligations under the UNFCCC, in accordance with UNFCCC principles, including the principle of common but differentiated responsibilities and respective capabilities, and achieving the ultimate objective of stabilizing greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system was stressed by many countries, although as noted above, there was objection by some countries to making particular reference to common but differentiated responsibilities in this context.

32. There was broad agreement on the development and dissemination of advanced energy technologies, including cleaner fossil fuels, energy efficiency and renewable energies, such as hydro, geothermal, wind, bio-energy such as biofuels, solar, hydrogen and other new and renewable energy sources and technologies that contribute to the reduction of greenhouse gas emissions, including through private sector involvement, market-oriented approaches and supportive public policies and international cooperation.

33. There was a widely shared acceptance of the continuing need to explore the technical and economic feasibility and environmental soundness of new and emerging technologies, such as carbon capture and storage and other emission reduction technologies for fossil fuel sources, although some countries expressed continuing concern about the maturity and feasibility of such technologies.

34. There was also broad agreement on moving towards a longer-term strategy and a comprehensive response to climate change by promoting sustainable economic growth, accelerating the transition to a lower greenhouse gas emitting economy, and enhancing adaptive capacities and response measures to cope with the impacts of climate change.

35. There was general agreement on the importance of increasing community resilience to climate change related disasters by protecting natural resources and the conservation of ecosystems and the services they provide, through activities such as conservation and restoration of mangroves and coral reefs, reforestation and rangeland rehabilitation, and protection of coastal areas and marine resources, including fish stocks, and integrated water resources management, and the need to enhance and support efforts in this regard, in particular in developing countries.

36. Discussions of regional, sub-regional and international cooperation on climate change included references to enhancing international support to establish and/or strengthen regional climate observation systems and networks; strengthening international support to enhance national institutional capacities in developing countries and in countries with economies in transition for their effective participation in the Clean Development Mechanism and Joint Implementation; strengthening existing funding mechanisms for adaptation activities; strengthening North-South, South-South and triangular cooperation in research, development and demonstration initiatives and enhancing dialogue on ozone depleting substances that are also greenhouse gasses.

E. Inter-linkages, cross-cutting issues and means of implementation

37. Many countries stressed the importance of taking an integrated approach to the four thematic issues, addressing in a balanced way the economic, social and environmental pillars of sustainable development, to enhance effectiveness, influence lifestyle changes and assist in the realization of complementary and mutually reinforcing policy options and actions. Cross-cutting issues need to be mainstreamed into policy approaches, programmes and development cooperation activities, including through public participation and in particular a strong role of women in decision-making. The means of implementation are critical to turning commitments into actions.

38. The Chair's proposed decision text includes actions on a number of issues on which delegations agreed *ad referendum*, such as ensuring that energy, industry, air pollution/atmosphere and climate change plans and policies are integrated into national sustainable development strategies, and other policy frameworks; strengthening good governance at all levels, in both the public and private sectors; implementing the global partnership for development and enhancing the momentum generated by the 2005 World Summit; promoting North-South, South-South and triangular cooperation; building partnerships/voluntary initiatives with all relevant stakeholders and major groups; creating an enabling environment for investment; encouraging private international financial flows and public private partnerships; facilitating greater flows of foreign direct investment; ensuring that investment and trade policies are non-discriminatory; working towards an early conclusion and development oriented outcome of the Doha Round of trade negotiations; advancing and fully implementing the Bali Strategic

Plan for Technology Support and Capacity-Building; reaffirming the importance of achieving the goal of universal primary education by 2015; enhancing gender mainstreaming in all areas of sustainable development; integrating health concerns including those of the most vulnerable populations into strategies, policies and programmes and recognizing and utilizing as appropriate the knowledge and experience of the nine major groups as identified in Agenda 21.

39. While the meeting was unable to reach a full consensus on all the means of implementation, critical elements in all four thematic areas included the need to mobilize financial resources, both from the public and private sector, increased ODA, micro-credit and innovative funding for renewable energy, energy efficiency, cleaner fossil fuels and other energy; create a positive investment climate at all levels to attract private capital; encourage transfer and dissemination of cleaner energy technologies, including advanced, cleaner fossil fuel technologies; increase investments and strengthen public/private partnerships in research and development (R&D); promote foreign direct investment for the development of the resource base; encourage international financial institutions to increase their funding in developing countries; encourage investment in new and more efficient production facilities and products; strengthen investment in capacity building; enhance access to credit, including micro-financing, by small-scale entrepreneurs; build capacity for monitoring, construction and updating of emissions inventories; promote the development, demonstration and deployment, of technologies for adaptation and mitigation and build capacity for research on climate change impacts and training for technical capabilities, particularly in developing countries.

Follow-up to and further implementation of the Mauritius Strategy of Implementation

40. The Chair's proposed decision text includes actions on a number of issues on which delegations agreed *ad referendum*, such as, fully and effectively implementing the commitments, programmes and targets adopted in the Barbados Programme of Action (BPOA) and the Mauritius Strategy for Implementation (MSI); promoting the implementation of partnership initiatives consistent with the role and mandate of the CSD; encouraging the relevant agencies of the United Nations system to further mainstream the Mauritius Strategy for Implementation and urging donors, financial institutions and mechanisms to consider ways to simplify and improve access to financial resources for SIDS.

Africa

41. No agreement was reached on measures for Africa but countries supported the need to implement the priority actions for African countries, including provision of affordable and environmentally sound energy services, infrastructure development, improving air pollution and data collection and observation capabilities, and adaptation to impacts of climate change, such as drought and desertification; strengthening financial and technical assistance and resources to support the implementation of Africa's agreed programmes of action and regional implementation and support in implementing plans on science and technology, disaster risk reduction and hydropower development.

Review and Follow-up

42. No consensus was reached on review and follow-up on the inter-linked issues of energy for sustainable development, industrial development, air pollution/atmosphere and climate change.

ANNEX

Decision Text Proposed by the Chairman

Policy Options and practical measures to expedite implementation of energy for sustainable development, industrial development, air pollution/atmosphere and climate change

1. Strongly reaffirming our commitment to the Rio principles, in particular principle 7 on “common but differentiated responsibilities” and to the full implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21, and the Johannesburg Plan of Implementation;
2. Further reaffirming the Monterrey Consensus of the International Conference on Financing for Development, the Declaration of Barbados and the Programme of Action for the Sustainable Development of Small Island Developing States, the Mauritius Declaration and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States, Brussels Programme of Action for Least Developed Countries for the Decade 2001-2010, the decisions of the Ninth session of the Commission on Sustainable Development, the Hyogo Framework for Action, 2005-2010: Building the Resilience of Nations and Communities to Disaster;
3. Recalling the 2005 World Summit outcome;
4. Reaffirming the commitment to achieving the internationally agreed development goals, including the Millennium Development Goals, and those contained in the outcomes of the major United Nations conferences held, and international agreements reached since 1992, and recognizing the continuing urgent need for actions to achieve these goals;
5. Reaffirming that the Commission on Sustainable Development should continue to be the high-level commission on sustainable development within the United Nations system and serve as a forum for consideration of issues related to integration of the three dimensions of sustainable development;
6. Reaffirming the continuing need for integrating economic development, social development and environmental protection as interdependent and mutually reinforcing pillars of sustainable development, and that poverty eradication, changing unsustainable patterns of production and consumption and protecting and managing the natural resource base of economic and social development are overarching objectives of, and essential requirements for, sustainable development;

7. Recognizing the special needs of Africa, least developed countries, landlocked developing countries, small island developing states;
8. Emphasizing the need for continued, coordinated and effective international support for achieving the development goals in countries emerging from conflict and in those recovering from natural disasters;
9. Recalling Economic and Social Council resolution 2003/61 of 25 July 2003 on the future programme, organization and methods of work of the Commission on Sustainable Development.
10. Noting the outcome of the 14th session of the Commission on Sustainable Development, which identified the obstacles and constraints, lessons learned, best practices and future challenges for the thematic cluster of energy for sustainable development, industrial development, air pollution/atmosphere and climate change;
11. Noting the contribution of partnerships for sustainable development for advancing the implementation of the JPOI;
12. Decides to submit the policy decision of the 15th session of the Commission on Sustainable Development to the Economic and Social Council;
13. Decides to call upon Governments, and the United Nations system within existing resources and through voluntary contributions, and invites international financial institutions and other international organizations, as appropriate, working in partnership with major groups and other stakeholders, to take action as follows;
14. Decides to call on Governments to mainstream gender considerations, in particular the role of women in management and decision-making, at all levels, which is crucial for the implementation of the interlinked issues of energy for sustainable development, industrial development, air pollution/atmosphere, and climate change.

A. Energy for Sustainable Development:

15. Energy is crucial for sustainable development, poverty eradication and achieving the internationally agreed development goals, including the Millennium Development Goals (MDGs). To tackle challenges, and realize our ambitions to achieve the Millennium Development Goals (MDGs) within the agreed timeframes, the implementation of the JPOI must be urgently and substantially accelerated. Access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services is crucial, particularly in developing countries, taking into account national specificities and circumstances. While fossil fuels will continue to play an important role in the energy supply in the decades to come, every effort must be made to diversify the energy mix.
16. Take actions to:

- a) Further diversify energy supply by developing advanced, cleaner, more efficient, affordable and cost-effective energy technologies, including advanced and cleaner fossil fuel technologies and renewable energy technologies, including, as appropriate, hydro power, geothermal, wind, solar, hydrogen, tidal and ocean and bio-energy, such as biofuels, and their transfer to developing countries, on concessional terms, as mutually agreed;
- b) With a sense of urgency, substantially increase the global share of renewable energy sources with the objective of increasing its contribution to total energy supply, recognizing the roles of national and voluntary regional targets as well as initiatives, where they exist, and ensuring that energy policies are supportive to developing countries' efforts to eradicate poverty, and regularly evaluate data to review progress to this end;
- c) Substantially increase, as a matter of urgency, the global share of renewable energy in the energy mix, including, as appropriate, solar thermal, photovoltaic, biomass including biofuels, wind, hydro, tidal, ocean and geothermal and other forms of renewable energy in accordance with the Johannesburg Plan of Implementation and national plans;
- d) Make greater use of effective policy tools, such as voluntary national, sub-national or regional goals, programmes and targets, as appropriate, to increase access to energy, energy efficiency and the share of renewable energies;
- e) Policies to reduce market distortions would promote energy systems compatible with sustainable development through the use of improved market signals and by removing market distortions, including restructuring taxation and phasing out harmful subsidies, where they exist, to reflect their environmental impacts, with such policies taking fully into account the specific needs and conditions of developing countries, with the aim of minimizing the possible adverse impacts on their development;
- f) Take action, where appropriate, to phase out subsidies in this area that inhibit sustainable development, taking fully into account the specific conditions and different levels of development of individual countries and considering the adverse effect, particularly on developing countries.

17. Access to energy should include actions to:

- a) Accelerate access to sustainable energy services to the poor, in particular in rural and remote areas in developing countries, including least developed countries, landlocked developing countries and small island developing states (SIDS) and African countries;
- b) Ensure that energy policies are supportive of developing countries' efforts to eradicate poverty;

- c) Integrate, for countries which have not already done so, energy access and diversified energy policies into national sustainable development strategies, poverty reduction strategies and national development plans;
- d) Promote, at the national and local levels, sustainable rural electrification programmes;
- e) Adopt incentives to encourage increased investment by the public and private sectors to provide sustainable improved energy services and infrastructure particularly for the poor, in urban, peri-urban and rural areas, with special attention to women;
- f) Develop energy storage technologies, transmission and energy transport infrastructure, including oil and natural gas pipelines and electricity interconnections;
- g) Accelerate transition from inefficient utilization of biomass to cleaner energy sources, technology, and appliances for cooking and heating, and support efforts to disseminate improved biomass-based technologies and provide incentives for switching to cleaner fuels and technologies;
- h) Combine, as appropriate, the increased use of renewable energy resources, more efficient use of energy, greater reliance on advanced energy technologies, including advanced and cleaner fossil fuel technologies, and the sustainable use of traditional energy resources, which could meet the growing need for energy services in the longer term to achieve sustainable development;
- i) Promote public participation and strengthen the role of women and youth in decision making, planning, designing and implementation of energy policies and programmes at all levels;
- j) Reduce disaster risk and build the resilience of energy related infrastructures to disasters;
- k) Encourage, at the national level, enabling environments and strengthen regulatory frameworks to improve the functioning, transparency and information related to national energy markets.

18. The promotion of energy efficiency should include actions to:

- a) Accelerate the development, dissemination and deployment of more efficient energy technologies;
- b) Increase efficiency and productivity in the power and heat sectors, through better utilization of generation capacities, co-generation, lowering energy transmission losses, demand management, fuel switching, heat recovery, interconnection or national electricity grids, the establishment of power pools and greater electricity trade,

- c) Strengthen inter-regional cooperation so that more efficient and more robust regional electricity markets can be established;
- d) Promote, at the national level, energy efficiency policies and programmes, including energy auditing schemes and certification, system optimization, appliance and equipment performance and labels for products used in residential, commercial, and industrial sectors;
- e) Promote and strengthen, at the national level, energy efficiency building codes and encourage financial and technical support for improving insulation, lighting and natural ventilation in public, residential, and commercial buildings;
- f) Promote, at the national level, integration of energy efficiency into public procurement policies and procedures;
- g) Promote, at the national level, consumer awareness and public participation in energy efficiency and energy savings initiatives;
- h) Increase efficiency in oil and gas extraction, processing, storage, loading, dispensing and transport, including reducing gas flaring and venting;
- i) Promote international cooperation on energy efficiency, including sharing information, joint research, education, training and financing;
- j) Promote measures for energy efficiency and energy saving at the workplace through joint worker-employer actions;
- k) Improve energy efficiency in the industrial sector.

Regional, sub-regional and International Cooperation

19. Take actions to:

- a) Strengthen international, regional, sub-regional cooperation, as appropriate, in order to implement the decision of CSD-15, and other relevant decisions, on energy for sustainable development;
- b) Enhance regional/sub regional arrangements, as appropriate, to increase energy access in urban, rural and remote areas, facilitate resource mobilization and, enhance energy availability, efficiency, capacity-building, knowledge creation and sharing and provision of local energy services, with a particular attention to the needs of women and youth;
- c) Support the national and regional efforts of the developing countries in implementation of energy policies in the framework of national sustainable development strategies, national development plans, as well as the implementation of CSD-15 decision, and other relevant decisions, on energy for sustainable development;

- d) Foster international and regional cooperation in developing and deploying renewable energy technologies and advanced energy technologies, including cleaner fossil fuel technologies, and encourage international and regional cooperation for capacity building including through North-South, South-South including triangular cooperation;
- e) Strengthen international support for the implementation of national and regional energy efficiency programmes, including investment in, and the transfer of, modern energy efficiency technologies, which are environmentally sound, cost effective and socially acceptable;
- f) Encourage and strengthen CSD Partnerships for Sustainable Development in facilitating energy sustainability, including through increased cooperation with international financial institutions, international agencies, the private sector, NGOs, and other stakeholders;
- g) Strengthen cooperation between national and regional energy institutions on energy for sustainable development and encourage networking in research and development, including through the promotion of cyber laboratories and centres of excellence;
- h) Support a robust and sustainable energy system at national and regional levels, maintenance and improvement of energy production and transport infrastructure, including pipeline, transmission and distribution facilities;
- i) Enhance and facilitate, as appropriate, regional cooperation in the field of generation, transmission and distribution of energy, including through sustainable exploration and utilization of regional hydroelectric potentials, interconnection of electricity grids, oil and natural gas pipelines and cross-border energy trade;
- j) Encourage regional and international financial institutions (IFIs) to expand, and the Global Environment Facility (GEF) to continue, their support for energy efficiency, energy saving, renewable energy and advanced energy technologies, including cleaner fossil fuel technology and facilitate access to funding for developing countries, particularly least developed countries (LDCs), land-locked developing countries (LLDCs) and SIDS;
- k) Promote investment and partnerships for the development of sustainable, energy efficient multi-modal transportation systems aiming at providing safe, affordable and efficient transportation;
- l) Create partnerships with regional and international financial institutions, including regional development banks, to promote energy access, energy efficiency, energy saving, renewable energy and advanced energy technologies, including cleaner fossil fuel technologies and the allocation of financial resources;

- m) Increase international support for national efforts to adopt standards and labeling for energy-efficient appliances and consumer equipment, as well as international harmonization of testing and certifying methods;
- n) Encourage cooperation on effective ways and means to eliminate the dumping of hazardous energy wastes and obsolete products in developing countries;
- o) Strengthen initiatives to create and foster international cooperation on bioenergy, including biofuels, with a view to ensure that bioenergy is produced and used sustainably, taking into account an adequate balance between food security and bioenergy production, as well as the sustainable use of natural resources, according to national circumstances;
- p) Improve the functioning, transparency and information related to energy markets to promote greater stability and predictability, both with respect to supply and demand;
- q) Enhance regional and international dialogue and understanding between energy producing and consuming countries;
- r) Enhance international cooperation in the implementation of relevant General Assembly resolutions relating to energy for sustainable development.

Follow up on Energy for Sustainable Development

Decides to devote in 2010 and 2014 without prejudice to the programme, organization and methods of work of the Commission adopted at its 11th session, for a duration to be determined by the Bureau in advance, using one or two days as benchmarks, to monitor and follow up the implementation of decisions on energy for sustainable development, and its means of implementation, taken at JPOI, CSD-9 and CSD-15.

Means of Implementation

20. Take actions to:

- a) Mobilize financial resources, including from the public and private sector, increased ODA, micro-credit and innovative funding for renewable energy, energy efficiency, cleaner fossil fuel and other energy;
- b) Create a positive investment climate at all levels to attract private capital for energy projects;
- c) Encourage transfer and dissemination of cleaner energy technologies, including advanced, cleaner fossil fuel technologies;

- d) Encourage the development of carbon capture and storage and enhanced oil recovery technologies with developed countries accelerating their development in contributing to the reduction of greenhouse gas emissions;
- e) Increase investments and strengthen public/private partnerships in research and development (R&D) to develop the new, advanced energy technologies, including cleaner fossil fuel technologies;
- f) Support and promote the use of cleaner liquid and gaseous fossil fuels including through creating appropriate investment conditions for LNG and gas-to-liquid (GTL) trade and develop the global LNG/GTL market to increase access to cleaner forms of fossil fuel energy;
- g) Promote foreign direct investment for the development of the resource base including fossil fuels, sustainable production and use of biofuels and other renewable sources of energy;
- h) Support the establishment and further development of energy service companies through capacity building at the national level;
- i) Encourage international financial institutions to increase their funding in developing countries to improve energy efficiency in local and national electricity grids, including through reduction of electricity losses in transportation and distribution networks.

B. Industrial development

21. Industrial development should be addressed within the context of sustainable development and the Rio Declaration and implementation of JPOI and is crucial for economic growth, eradicating poverty and employment creation, as well as the achievement of the internationally agreed development goals, including the Millennium Development Goals. Managing the natural resources base in a sustainable and integrated manner is essential for sustainable development. Increasing resource use efficiency and enhancing technological innovation offer opportunities to reduce costs, increase competitiveness and employment as well as delink economic growth and environmental degradation. In this regard, the role of business and industry is important. International financing and technology cooperation and transfer are important to developing countries and their businesses and industries to facilitate adoption of cleaner, more efficient technologies. Industrial development is closely linked to the further integration of developing countries and countries with economies in transition into the global economy.

22. Take action to:

- a) Formulate national policy frameworks, including legislation and regulations, as appropriate, to create an enabling environment for sustainable industrial development and diversification, private sector investment, and enhanced domestic environmental governance, and the adoption of improved environmental management practices and environmentally sound technologies;

- b) Enhance the mobilization of technical and financial resources for basic infrastructure to facilitate sustainable industrial development in developing countries;
- c) Support technological upgrading for sustainable industrial development, including inter alia through existing national and international investment funds, building capacity of standards, testing and certification bodies, and stronger industry-academia collaboration on R&D;
- d) Enhance efficient and sustainable use by industry of natural resources and energy, sound chemicals management, pollution reduction, waste minimization and recycling and reuse including, as appropriate, through the provision of financial and technical assistance in particular to developing countries;
- e) Strengthen business capacity, in particular for small and medium-sized enterprises (SMEs) and in particular in developing countries and countries with economies in transition, to address unsustainable industrial practices and to implement supportive management approaches, including through better access to loan and credit programmes, and financial and technical support for cleaner production programmes and centres, such as the UNIDO/ UNEP Cleaner Production Centres, as well as universities and other institutions of higher learning;
- f) Invite business and industry to improve social and environmental performance through voluntary innovative management and reporting practices, including, inter alia, environmental management system (EMS) approaches; and taking into account other relevant agreements and guidelines on sustainable development, such as the Global Reporting Initiative, using where appropriate science based approaches such as life-cycle analysis for innovative sustainable product development processes;
- g) Invite the development and adaptation of voluntary public-private corporate environmental and social responsibility and accountability initiatives, that take into account the ILO Declaration on Fundamental Principles and Rights at Work, including, inter alia, the Global Compact;
- h) Promote sustainable patterns of consumption and production by all countries, with developed countries taking the lead and with all countries benefiting from the process, including, inter alia, through the 3 R initiative (reduce, reuse, recycle), education and awareness raising to encourage lifestyle changes and through intensifying research on and adaptation of resource efficient technologies, technological innovation and cooperation, taking particularly into account the needs and capabilities of developing countries;
- i) Promote sustainable tourism including eco-tourism and in this regards support efforts of developing countries, including in LDCs, LLDCs and SIDS;

- j) Encourage closer cooperation and dialogue among government, local authorities, business and industry, the scientific and technological community, workers and trade unions, farmers, NGOs, women, youth, indigenous people and local communities and other key stakeholders in order to promote effective voluntary business and consumer actions to enhance sustainable consumption and production as well as full, freely chosen and productive employment and decent work;
- k) Enhance sustainable utilization and management of marine resources, fisheries based on coral reef ecosystems, aquaculture industries, seafood processing, and support efforts of developing countries in this regard especially in Small Island Developing States.

Sub-regional, regional and global international cooperation

23. Take actions to:

- a) Encourage continued international efforts to support developing countries in building capacities for environmental impact assessments, including, as appropriate, strategic environmental assessments of national and regional plans and programmes and in this regard to provide support, as mutually agreed, to developing countries at the local, national and where they exist regional level;
- b) Pursue progress in the field of sustainable consumption and production patterns through full commitment to the Marrakech process and its task forces;
- c) Improve market access for products of importance to developing countries by reducing or, as appropriate, eliminating tariffs, including the reduction or elimination of tariff peaks and tariff escalation as well as non-tariff barriers to enable developing countries to make full use of their comparative advantages, and work toward a successful completion of the Doha Round of WTO negotiations;
- d) Support trade-related capacity building in developing countries, including for customs procedures simplification, trade promotion, and quality control;
- e) Enhance capacity in developing countries for developing, implementing and enforcing regulations, codes and standards;
- f) Support technology transfer on favourable terms, including on concessional and preferential terms, as mutually agreed, especially of environmentally sound technologies, and mobilize financial resources for sustainable industrial development in developing countries;
- g) Strengthen North-South, South-South and triangular technology cooperation, including joint R&D between developed and developing countries;

- h) Strengthen international support, including support of relevant United Nations agencies for promotion and dissemination activities relating to trade and investment opportunities in developing countries including SIDS.

Means of Implementation

24. Take action to:

- a) Encourage investment in new and more efficient production facilities and products and the adoption and use of cleaner technologies;
- b) Strengthen investment in capacity building, in particular in developing countries and in countries with economies in transition, as appropriate, education and skills development to enhance the industrial skill base, to improve employment and entrepreneurship opportunities for women and youth on a non-discriminatory basis, and to reduce any negative social impacts when applicable related to industrial restructuring;
- c) Promote innovation and entrepreneurship by enhancing access to credit, including micro-financing, by small-scale entrepreneurs, to support involvement of, inter alia, women, youth and local communities in industrial business activities.

C. Air Pollution/Atmosphere

25. Air pollution has serious adverse impacts on the quality of life, in particular on human health, the environment and the economy. Therefore an integrated approach is needed to tackle both indoor and outdoor air pollution, which takes into account the related environmental, economic and social consequences. Its mitigation should be better integrated into national development planning processes. Indoor air pollution from traditional biomass cooking and heating is a poverty-related issue whose effects are most strongly felt at the household/local level, particularly in developing countries by women and children. Industry and various forms of transportation may contribute significantly to air pollution.

26. Take actions to:

- a) Improve information dissemination of, and the knowledge base on, sources and health impacts of indoor air pollution, in particular on women, children and workers. Provide financial and other resources to support programmes and other activities that address adverse health impacts including public awareness campaigns on indoor air pollution from all sources in developing countries;
- b) Replicate and increase, as appropriate, successful approaches and best practices and partnerships to reduce indoor air pollution, such as the Partnership for Clean Indoor Air, with a priority focus on practical initiatives that improve air quality;
- c) Accelerate the transition from inefficient utilization of biomass to cleaner energy sources, technology, and appliances for cooking and heating and support efforts to

disseminate improved biomass-based technologies and provide incentives for switching to cleaner fuels and technologies;

- d) Develop strategies for sustainable urban and land-use planning which integrate sustainable urban transport system, industrial plant location and waste disposal siting and facilities;
- e) Promote the establishment of country and regional air quality standards and norms taking into account WHO air quality guidelines as appropriate;
- f) Improve control of emissions, including through, as appropriate the establishment of emission limit values from different sources to mitigate air pollution, including, inter alia, through modernizing and upgrading thermal electric power plants, making the extraction and processing of fossil fuels more efficient, reducing emissions from gas flaring and venting and emissions from transport;
- g) Improve urban air quality through utilization of cleaner fuels and technologies;
- h) Expand the use of advanced energy technologies, including cleaner fossil fuels and renewable energy technologies, and support market development for the deployment of clean energy and production technologies;
- i) Improve collection, compilation and analysis of data, as well as capacities to measure and monitor air pollution and its impact on human health;
- j) Promote less polluting public and mass transport systems;
- k) Encourage improved inspection and maintenance requirements for all vehicles;
- l) Encourage public and private sectors to switch to more fuel/energy-efficient vehicles, including through legislation, as appropriate;
- m) Develop and implement national standards and market and non-market incentives to improve fuel and vehicle efficiency and the use of technologies that reduce emissions.

Regional, sub-regional and international cooperation

27. Take actions to:

- a) Strengthen regional and sub-regional cooperation for improved air quality and control of transboundary air pollution, both anthropogenic and naturally occurring, using an approach, which combines, as appropriate, monitoring, abatement, research, or policy formulation as well as sharing of regional experiences, and encourage countries to cooperate in relevant regional and sub-regional frameworks, and mechanisms agreed upon by countries concerned;

- b) Encourage the sharing, on a voluntary basis, of regional and sub-regional experiences that address transboundary air pollution, such as the UN ECE Convention on Long Range Transboundary Air Pollution (CLRTAP) and the Air Pollution in the Mega-Cities of ASIA (APMA);
- c) Increase sub-regional, regional and international cooperation on collection, management, and dissemination of sound and updated scientific data and best techniques to improve air quality;
- d) Promote policies to reduce air pollution, the use of ozone depleting substances and improve air quality bearing in mind that such policies can have important co-benefits in addressing climate change;
- e) Encourage enhanced cooperation and, as appropriate, combined efforts of relevant international bodies in the implementation of multilateral environmental agreements;
- f) Invite Member States, to the extent that they have not yet done so, to consider ratifying or acceding to the Vienna Convention and the Montreal Protocol and its amendments;
- g) Support measures to address illegal traffic in ozone depleting substances under the Montreal Protocol framework;
- h) Strengthen systematic observation of the Earth's atmosphere by means of satellite, aerial and in-situ monitoring systems, increase scientific cooperation by for example, making the results available for the use of all countries, especially developing countries;
- i) Support, as appropriate, international monitoring programmes, such as the Global Earth Observation System of Systems (GEOSS) and the Global Climate Observing System;
- j) Support initiatives such as the Partnership for Clean Fuels and Vehicles for phasing out the remaining use of leaded gasoline, and work to reduce sulphur content in fuels, as well as the Partnership on Clean Indoor Air and the Global Mercury Partnership to Reduce Mercury from Coal Fired Utilities, as well as assist those countries who wish to replace methyl tertiary butyl ether (MTBE) in gasoline.

Means of Implementation

28. Take actions to:

- a) Promote the transfer of affordable, efficient and environmentally sound technologies on favourable terms, including on concessional and preferential terms, as mutually agreed, for cleaner operating vehicles, traffic management and cleaner fuels, including advanced cleaner fossil fuels, renewable and alternative fuels, inter alia, through the involvement of the private sector;

- b) Invite donors to continue providing financial resources during the next replenishment of the multilateral fund under the Montreal Protocol;
- c) Enhance capacity building, institutional strengthening and involvement of the private sector and all other relevant stakeholders in the work of improved air quality, taking into consideration the special circumstances and needs of developing countries, particularly small island developing states, LDCs and LLDCs;
- d) Assist developing countries, as well as countries with economies in transition, to build capacity for monitoring, construction and updating of emissions inventories, measuring and assessing the impacts of air pollution, and to promote the exchange of air emission information;
- e) Promote investment and partnerships for the development of sustainable, energy efficient multi-modal transportation systems;
- f) Invite international organizations and donors, to expand their support for developing countries with significant amounts of naturally occurring air pollution, particularly dust, sandstorms, forest fires, and volcanic ash, including through capacity building for early warning, monitoring, and preventive measures;
- g) Support development of appropriate technology and measures to reduce emissions from burning and incineration of waste;
- h) Facilitate the transfer of environmentally sound and affordable waste management and disposal and recycling technologies to developing countries.

D. Climate Change

29. Climate change is a global sustainable development challenge with strong social, economic and environmental dimensions. The recent findings of the IPCC regarding the impacts of climate change on sustainable development are cause for concern. Climate change impacts all countries, but may be particularly severe for developing countries, especially Africa, LDCs, LLDCs, and SIDS, which are particularly vulnerable, given their exposure and inadequate means and limited capacities to adapt to its effects. Noting the contribution of human activities to climate change, the CSD highlights the need for urgent attention and further action by the international community, in accordance with the United Nations Framework Convention on Climate Change, recognising that social and economic development and poverty eradication are the overriding priorities for developing countries. The UNFCCC is the key instrument in addressing climate change. Decisions taken by the CSD are meant to complement and support, but not duplicate, the work of the UNFCCC and its Kyoto Protocol.

30. Take actions to:

- a) Meet all the commitments and obligations under the UNFCCC, in accordance with all UNFCCC principles, including the principle of common but differentiated

responsibilities and respective capabilities, and achieve its ultimate objective of stabilizing greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system;

- b) Develop and disseminate advanced energy technologies, including cleaner fossil fuels, energy efficiency and renewable energies, such as hydro, geothermal, wind, bio-energy such as biofuels, solar, hydrogen and other new and renewable energy sources and technologies that contribute to the reduction of greenhouse gas emissions, including through private sector involvement, market-oriented approaches and supportive public policies and international cooperation;
- c) Continue to support developing countries, including through provision of financial and technical assistance, particularly to Africa, LDCs, LLDCs and SIDS, to address their climate change adaptation challenges and priorities;
- d) Integrate climate change risks and related policy actions to address climate change in national sustainable development strategies, including poverty reduction strategies;
- e) Continue to explore the technical and economic feasibility and environmental soundness of new and emerging technologies, such as carbon capture and storage and other emission reduction technologies for fossil fuel sources;
- f) Move towards a longer-term strategy for a comprehensive response to climate change by promoting sustainable economic growth, accelerating the transition to a lower greenhouse gas emitting economy, and enhancing adaptive capacities and response measures to cope with the impacts of climate change.
- g) Support efforts of developing countries to reduce emissions from deforestation and forest degradation, and promote the sustainable management, conservation and enhancement of carbon sinks and reservoirs through improved land-use management, soil protection, afforestation and reforestation, and forest conservation;
- h) Support early warning, risk management and disaster reduction and response measures for developing countries, particularly the most vulnerable, such as small island developing States and least developed countries;
- i) Promote initiatives to improve the relevance, utility and accessibility of information on impacts of climate variability and climate change for use in early warning and risk management efforts;
- j) Integrate lessons learned and experiences derived from disaster risk reduction activities into adaptation measures and planning;
- k) Increase community resilience to climate change related disasters by protecting natural resources and the conservation of ecosystems and the services they provide, through activities such as conservation and restoration of mangroves and coral reefs,

reforestation and rangeland rehabilitation, and protection of coastal areas and marine resources, including fish stocks, and integrated water resources management, and continue to enhance and support efforts in this regard, in particular in developing countries;

- l) Enhance capacity building and support efforts, in particular of developing countries, to integrate climate risk and vulnerability into investment plans and infrastructure development planning.

Regional, sub-regional and international cooperation

31. Take actions to:

- a) Enhance international support to establish and/or strengthen regional climate observation systems and networks, as appropriate, including by enhancing research in climate observation, modelling and dissemination of related information including through capacity building in developing countries;
- b) For those countries that are parties to the Kyoto Protocol, strengthen international support to enhance national institutional capacities in developing countries, in particular in Africa, and countries with economies in transition, for their effective participation in the Clean Development Mechanism and Joint Implementation, where appropriate;
- c) Strengthen existing funding mechanisms for adaptation activities;
- d) Strengthen North-South, South-South and triangular cooperation in research, development and demonstration initiatives in the area of climate change;
- e) Enhance dialogue on ozone depleting substances that are also greenhouse gases.

Means of Implementation

32. Take actions to:

- a) Promote the development, demonstration and deployment, of technologies for adaptation and mitigation, and transfer of these technologies to developing countries in particular Africa, SIDS, LDCs and LLDCs;
- b) Build capacity for research on climate change impacts and training for technical capabilities, particularly in developing countries, to cope with the adverse impacts of climate change, including by supporting efforts under the UNFCCC, IPCC, other relevant international bodies and bilateral and regional partnerships;

- c) Continue development of partnerships among countries, including public-private partnerships, to manage the potential risks of adverse impacts of climate change on developing countries especially Africa, SIDS, LDCs ;
- d) Promote capacity building and institutional strengthening at the national level, in particular in developing countries, including through financial and technical assistance in earth system monitoring and assessment, and reporting of climate change variables;
- e) Encourage the use of participatory approaches to address climate change, including public-private and community-based partnerships at national, regional and global levels;
- f) Promote the participation and awareness of all major groups, i.e., women, children and youth, indigenous people, non-governmental organizations, local authorities, workers and trade unions, business and industry, the scientific and technological community, and farmers in addressing climate since its impacts affect all sectors of society;
- g) Involve women in all aspects of decision-making in regard to climate change policy development and implementation;
- h) Recognise and support efforts undertaken by developing countries to reduce their greenhouse gas emissions.

E. Inter-linkages and cross-cutting issues, including means of implementation

33. An integrated approach to the four thematic issues, addressing in a balanced way the economic, social and environmental pillars of sustainable development, would enhance effectiveness, influence lifestyle changes and assist in the realization of complementary and mutually reinforcing policy options and actions. Cross-cutting issues need to be mainstreamed into policy approaches, programmes and development cooperation activities, including through public participation and in particular a strong role of women in decision-making. The means of implementation are critical to turning commitments into actions.

34. Take actions to:

- a) Ensure that energy, industry, air pollution/atmosphere and climate change plans and policies are integrated into national sustainable development strategies, poverty reduction strategies, and national development plans and policy frameworks, as appropriate;
- b) Support implementation of national sustainable development strategies as well as initiatives to share experiences and best practices and review such strategies on a voluntary basis;

- c) Strengthen good governance at all levels and in both the public and private sectors to advance progress on the sustainable development agenda in the four thematic areas;
- d) Fully implement the global partnership for development and enhance the momentum generated by the 2005 World Summit in order to operationalize and implement, at all levels, the commitments in the outcomes of the major United Nations conferences and Summits;
- e) Promote North-South, South-South and triangular cooperation, as well as regional and subregional cooperation, with support from the international agencies;
- f) Build partnerships, which are voluntary initiatives, at all levels and involve relevant stakeholders, such as major groups and institutional stakeholders, in addressing implementation challenges in this thematic cluster;
- g) Involve the private sector more actively in implementation, including through the creation of an enabling environment for investment, private international financial flows and public private partnerships;
- h) Improve access to sources of finance and investment for developing countries to implement the JPOI, including increased ODA; the promotion of international trade as an engine of development, the transfer of technology on mutually agreed terms, increased investment flows, and debt relief, as appropriate;
- i) Achieve and maintain macroeconomic stability and long-term growth, including through managing public finances effectively, and ensure that development assistance is used to build national capacities;
- j) Facilitate greater flows of foreign direct investment so as to support sustainable development of developing countries and enhance the benefits that developing countries can draw from foreign direct investment;
- k) Invite multilateral funding mechanisms, such as GEF, to provide better access to developing countries, including through simplification and streamlining the rules and reporting procedures as well as reduction of associated transaction costs;
- l) Mobilize financial resources to support developing countries, in particular African countries, least developed countries, landlocked developing countries and small island developing States in the effective implementation of national sustainable development strategies;
- m) Encourage the application of strategic environmental assessment to plans and programmes where practicable and appropriate;

- n) Ensure that investment and trade policies are non-discriminatory and structured in ways which foster technological capabilities in developing countries and countries with economies in transition;
- o) Work towards an early conclusion and development oriented outcome of the Doha Round of trade negotiations;
- p) Support public-sector capacity building for integrated planning and coordination of policymaking in the area of sustainable development across all relevant departments and ministries to foster policy coherence, in particular in developing countries;
- q) Promote technical capacity-building and know-how, including through support from multilateral financial institutions and collaborative research and development between developed and developing countries focusing on the natural resource potential of developing countries;
- r) Further advance and fully implement the Bali Strategic Plan for Technology Support and Capacity-Building and provide financial support for its implementation;
- s) Promote an improved understanding of the linkages between social, economic and environmental aspects of lifestyles and individual behaviour, reaffirming the importance of achieving the goal of universal primary education by 2015, by introducing education for sustainable development into formal curricula and promoting life-long learning through formal, informal and non formal education establishments, NGOs and the workplace, taking into account the Framework of the UN Decade of Education for Sustainable Development;
- t) Integrate the health concerns including those of the most vulnerable populations into strategies, policies and programmes for poverty eradication and sustainable development;
- u) Recognize and utilize as appropriate the knowledge and experience of the nine major groups as identified in Agenda 21, as well as the need for their effective inputs and participation in decision-making processes and implementation of JPOI;
- v) Promote, facilitate and finance, as appropriate, access to and the development, transfer and diffusion of environmentally sound technologies and corresponding know-how, in particular to developing countries and countries with economies in transition on favorable terms, including on preferential and concessional terms, as mutually agreed, as set out in chapter 34 of Agenda 21;
- w) Increase public and private investments in research and development and strengthen technology cooperation, including research and development collaboration, on technologies of importance to addressing implementation in all the themes of CSD-15;

- x) Support through technical assistance and financing the strengthening of scientific and technological capabilities in developing countries, including through promotion of existing and establishment of new centres of excellence and “virtual universities;”
- y) Emphasize the importance of changing unsustainable patterns of consumption and production and, in this context, fully support the Marrakech process and its task forces, e.g. the ten-year framework of programmes on sustainable consumption and production;
- z) Enhance gender mainstreaming in all areas of sustainable development, reaffirming the importance of women empowerment for development and of their full participation in decision-making, and enhance women’s participation in business and industrial development, including through the use of microfinance, education and capacity building;
- aa) Strengthen national and regional information and statistical and analytical services relevant to sustainable development policies and programmes, including data disaggregated by sex, age and other factors, and encourage donors to provide financial and technical support to developing countries to enhance their capacity to formulate policies and implement programmes for sustainable development, as provided for in the JPOI, para. 129.

Follow-up to and further implementation of the Mauritius Strategy of Implementation

35. Take action to:

- a) Fully and effectively implement the commitments, programmes and targets adopted in the Barbados Programme of Action (BPOA) and the Mauritius Strategy for Implementation (MSI);
- b) Promote and review the implementation of partnership initiatives consistent with the role and mandate of the CSD, in line with the framework of the Mauritius Strategy for Implementation, at the international, regional and national levels, in support of the sustainable development of small island developing States;
- c) Encourage the relevant agencies of the United Nations system, within their respective mandates, to further mainstream the Mauritius Strategy for Implementation in their work programmes to recognize and respond to the specific needs of SIDS;
- d) Urge donors, financial institutions and mechanisms to consider ways to simplify and improve access to financial resources for SIDS, taking into account their comparatively small size, limited capacity to develop project proposals, and absorptive capacities for implementation.

Africa

36. Take action to:

- a) Support the implementation of priority actions for African countries, including provision of affordable and environmentally sound energy services, infrastructure development, improving air pollution and data collection and observation capabilities, and adaptation to impacts of climate change, such as drought and desertification.
- b) Strengthen financial and technical assistance and resources to support the implementation of Africa's agreed programmes of action and regional implementation, including the objectives of Forum for Energy Ministers of Africa (FEMA) and New Partnerships for Africa's Development (NEPAD).
- c) Support African countries in implementing plans on science and technology, disaster risk reduction and hydropower development.

Review and Follow-up

37. Review and follow-up on progress in the implementation of decisions of the Fifteenth Session of the Commission on Sustainable Development during one or two day sessions in 2010 and 2014.