

59. We will also endeavour under the Montreal Protocol to ensure the recovery of the ozone layer by accelerating the phase-out of HCFCs in a way that supports energy efficiency and climate change objectives. In working together toward our shared goal of speeding ozone recovery, we recognize that the Clean Development Mechanism impacts emissions of ozone-depleting substances. We will continue to exercise leadership in the development of the Global Earth Observation System of Systems (GEOSS).

60. We will report on the progress achieved in the areas mentioned above at the G8 Summit in 2008.

Biodiversity

61. We emphasise the crucial importance of the conservation and the sustainable use of biodiversity as an indispensable basis for the provision of vital ecosystem services and the long term provision of natural resources for the global economy. We acknowledge the "Potsdam Initiative – Biological Diversity 2010" presented at the G8 Environmental Ministerial meeting in March 2007 and will increase our efforts for the protection and sustainable use of biological diversity to achieve our agreed goal of significantly reducing the rate of loss of biodiversity by 2010.

ENERGY EFFICIENCY

62. The global potential for saving energy is huge. According to the International Energy Agency, successfully implemented energy efficiency policies could contribute to 80% of avoided greenhouse gases while substantially increasing security of supply.

63. We recognise that enhanced international cooperation offers enormous opportunities. Against this background we are committed to further strengthening and increasing our efforts of co-operation, both at inter-state level as well as within the framework of the respective international fora and organisations.

To this end, we will

- continue and further substantiate our energy-efficiency dialogue begun at Evian;
- move forward with implementing the Gleneagles and St. Petersburg Action

Plans, thereby retaining and supporting the IEA's close involvement;

- take forward the concrete recommendations on energy efficiency presented by the IEA and consider drawing on these when preparing national energy efficiency plans;
- encourage the World Bank and other IFIs to further broaden and improve their financial framework for energy efficiency and clean energy;
- note the EU's proposal for an international agreement on energy efficiency and ask the Gleneagles Dialogue on Climate Change, Clean Energy and Sustainable Development and the IEA to explore the most effective means to promote energy efficiency internationally, including through the exchange of best practices, sharing methodologies and further cooperation and by inviting other countries with significant energy needs to join;
- promote international research, encourage investment and development co-operation aimed at energy efficient technologies and other greenhouse gas mitigation options;
- report on progress in the policies and measures on energy efficiency outlined below at the G 8 summit in 2008.

64. We note that, in view of their high energy needs, industrialised and emerging economies have a fundamental joint interest in taking measures to encourage the most effective use of their energy.

65. Against this background we commit ourselves to a model of efficient energy systems and call on other countries with high energy demand, including the major emerging economies, to join us in this endeavour. Our goal of building less energy intensive economies will also advance economic growth and competitiveness. To this end, we will promote the appropriate policy approaches and instruments, including inter alia economic incentives and sound fiscal policies, minimum standards for energy efficiency, sound and ambitious energy performance labelling, information campaigns aimed at consumers and industry that enhance national awareness, sector-based voluntary commitments agreed with industry, investment in research and development and guidelines for public procurement. We will develop and implement national energy efficiency programmes and advance international cooperation on energy efficiency, notably on efficiency standards. We ask the IEA to continue to support our national efforts by appropriate advice and make proposals for effective international co-operation.

66. We will furthermore work together with the major emerging economies towards a reduction in energy consumption in priority sectors. To this end we will invite the IEA, its members and their respective industries to increase the dialogue with the major emerging economies on more efficient energy policies and develop guidance mechanisms.

Sustainable Buildings

67. The opportunities for making buildings more efficient are enormous. Following the EU/G8 conference on energy efficiency, held in Berlin in April 2007, we will

- set up a "Sustainable Buildings Network", involving the G8 and open for participation of the major emerging economies. The network will develop practical instruments for assessing and advising on the implementation of energy efficiency in buildings and the use of renewable energies, especially for cooling and heating, taking into due consideration the different situations of new and existing buildings, and development and deployment of low and zero-carbon buildings,
- invite the IEA to take a central role in creating this network,
- work to increase energy efficiency in the building sector, and to reach a considerable expansion of renewable energies in this area. To this end we will consider the role of nationally determined targets in sustainable buildings and their importance for energy efficiency in the medium to long term. We will actively support the energy efficient technologies and the use of renewable energies by employing market mechanisms, promotion instruments and framework legislation, as well as through public-private-partnership initiatives to move towards low or zero-energy buildings. Instruments to this end include consumer information such as energy performance certificates ("building passports") and individual energy standards – which also consider renewable energies - for new buildings, modernisation or household equipment.

Transportation

68. Today there are 600 million motor vehicles around the globe, a figure which is projected to double by 2020. With this in mind, we will

- work to increase energy efficiency in the transport sector. To this end we will ask our governments to foster a large number of possible measures and various in-

struments that can clearly reduce energy demand and CO₂ emissions in the transport sector, including inter alia innovative engine concepts, alternative fuels, city planning measures, public transport, best possible inter-linkage of transport methods, increase the share of alternative fuels and energy carriers (biofuels, hydrogen, LPG/CNG, electricity, hybrid, etc.) in total fuel consumption; fuel diversification, for example synthetic and cellulosic biofuels and CO₂-free hydrogen, particularly in combination with the fuel cell, will be decisive in reducing transport CO₂ emissions, provided that second generation biofuel technologies become commercially available,

- step up coordination on development of international biofuel quality standards from various feedstocks to achieve optimal interoperability and emission profiles,
- avoid possible negative side-effects in biofuel development, particularly in developing countries in order to prevent competition between different forms of land uses, and promote sustainability in biomass cultivation. We invite the Global Bioenergy Partnership (GBEP) to continue its work on biofuel best practices and take forward the successful and sustainable development of bioenergy,
- monitor the implementation of the necessary measures and discuss progress at two-year intervals during the Environmentally Friendly Vehicles Conference the results of which shall be reported to G8-leaders,
- introduce energy efficiency labels for new cars along the lines of those already on some white goods.

Power Generation

69. Over the next 25 years, fossil fuels will remain the world's dominant source of energy. Making power generation more efficient, climate friendly and sustainable is therefore crucial.

70. Current innovations in power station design bear significant saving potential. Therefore, we will

- stimulate investments in high efficient power plants and grids and promote refurbishment of existing ones by an appropriate national policy framework. By this we aim to increase average power plant efficiencies in each of our countries.
- continue and expand national and international research and development ef-

forts to further advance modern power station technologies, with the aim of achieving higher efficiency levels

- adopt instruments and measures to significantly increase the share of combined heat and power (CHP) in the generation of electricity.

71. The centre of gravity of global energy demand is continuously shifting towards the emerging economies. We will

- enhance energy co-operation with those countries as a priority issue, including by actively supporting co-operative research, voluntary technology partnerships and private investment in clean technologies,
- work in close partnership with industry, science and with governments of other industrialised countries and, in particular, of major emerging economies in order to foster the diffusion and adoption of best practices along the entire fossil fuel process chain with a focus on fuel treatment as well as new and existing power plants. We particularly underline the need to promote capacity building and technology transfer on plant renovation and modernisation. To achieve these goals we will invite the IEA to take a central role in guiding our joint efforts.

72. In recognition of the increasingly urgent needs to achieve longer term greenhouse gas abatement, we will work on accelerating development and deployment of carbon capture and storage (CCS), including by

- prioritising national and international research and development efforts and encouraging international research and technology cooperation, to minimise efficiency losses of the different carbon capture technologies and to clarify geo-technical conditions for secure CO₂ storage,
- encourage research, development and deployment of clean coal technologies in both developed and emerging economies with the highest energy needs,
- supporting national and international geoscientific and political efforts in the field of CCS on ensuring security of storage and the provision of necessary legal frameworks to create a stable investment climate, thereby working in co-operation with industry as well as national and international research programmes,
- reinforcing our commitment made under the Gleneagles and St. Petersburg Plans of Action to support the initiatives taken by IEA and Carbon Sequestration