

statements to the Assembly, and outlined the actions they had in hand to respond to the challenge, both in their own countries and internationally.

50. The ultimate goal that all countries share is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. This requires efficient and cost-effective policies and measures that will be sufficient to result in a significant reduction in emissions. At the present session, countries reviewed the status of the preparations for the third session of the Conference of the Parties to the United Nations Framework Convention on Climate Change. All agreed that a satisfactory result was vital.

51. The position of many countries with respect to these negotiations is still evolving, and it was agreed that it would not be appropriate to seek to predetermine the results; however, useful discussions on evolving positions took place.

52. There is already widespread but not universal agreement that it will be necessary to consider legally binding, meaningful, realistic and equitable targets for countries listed in annex I to the Convention that will result in significant reductions in greenhouse gas emissions within specified time frames, such as 2005, 2010 and 2020. In addition to establishing targets, there is also widespread agreement that it will be necessary to consider ways and means of achieving them and to take into account the economic, adverse environmental and other effects of such response measures on all countries, particularly developing countries.

53. International cooperation in the implementation of chapter 9 of Agenda 21, in particular in the transfer of technology to and capacity-building in developing countries, is also essential to promote the effective implementation of the United Nations Framework Convention on Climate Change.

54. There is also a need to strengthen systematic observational networks so as to identify the possible onset and distribution of climate change and assess potential impacts, particularly at the regional level.

55. The ozone layer continues to be severely depleted and the Montreal Protocol²³ needs to be strengthened. The Copenhagen Amendment to the Protocol needs

to be ratified. The recent successful conclusion of the replenishment negotiations with respect to the Montreal Protocol Multilateral Fund is welcomed. This has made available funds for, among other things, earlier phase-out of ozone-depleting substances, including methyl bromide, in developing countries. Future replenishment should also be adequate to ensure timely implementation of the Montreal Protocol. An increased focus on capacity-building programmes in developing countries within multilateral funds is also needed, as well as the implementation of effective measures against illegal trade in ozone-depleting substances.

56. Rising levels of transboundary air pollution should be countered, including through appropriate regional cooperation to reduce pollution levels.

The international community confirmed its recognition of the problem of climate change as one of the biggest challenges facing the world in the next century.

Toxic chemicals

57. The sound management of chemicals is essential to sustainable development and is fundamental to human health and environmental protection. All those responsible for chemicals throughout their life cycle bear the responsibility for achieving this goal. Substantial progress on the sound management of

chemicals has been made since UNCED, in particular through the establishment of the Intergovernmental Forum on Chemical Safety (IFCS) and the Inter-Organizational Programme for the Sound Management of Chemicals (IOMC). In addition, domestic regulations have been complemented by the Code of Ethics on the International Trade in Chemicals and by voluntary industry initiatives, such as Responsible Care. Despite substantial progress, a number of chemicals continue to pose significant threats to local, regional and global ecosystems and to human health. Since the United Nations Conference on Environment and Development, there has been an increased understanding of the serious damage that certain toxic chemicals can cause to human health and the environment. Much remains to be done and the environmentally sound management of chemicals should continue to be an important issue well beyond 2000. Particular attention should also be given to cooperation in the development and transfer of technology of safe substitutes and in the development of capacity for the production of such substitutes. The decision concerning the sound management of chemicals adopted by the Governing Council of UNEP at its nineteenth session²⁴ should be implemented in accordance with the agreed timetables for negotiations on the conventions relating to prior informed consent (PIC) and persistent organic pollutants (POPs). It is noted that inorganic chemicals possess roles and behaviour that are distinct from organic chemicals.

Hazardous wastes

58. Substantial progress has been made in the implementation of the Basel Convention,²⁵ the Bamako Convention,²⁶ the Fourth Lomé Convention²⁷ and other regional conventions, although more remains to be done. Important initiatives aimed

at promoting the environmentally sound management of hazardous wastes under the Basel Convention include (a) activities undertaken to prevent illegal traffic in hazardous wastes; (b) the establishment of regional centres for training and technology transfer regarding hazardous waste minimization and management; and (c) the treatment and disposal of hazardous wastes as close as possible to their source of origin. These initiatives should be further developed. It is also important and urgent that work under the Basel Convention be completed to define which hazardous wastes are controlled under the Convention and to negotiate, adopt and implement a protocol on liability and compensation for damage resulting from the transboundary movement and disposal of hazardous wastes. Land contaminated by the disposal of hazardous wastes needs to be identified and remedial actions put in hand. Integrated management solutions are also required to minimize urban and industrial waste generation and to promote recycling and reuse.

Radioactive wastes

59. Radioactive wastes can have very serious environmental and human health impacts over long periods of time. It is therefore essential that they be managed in a safe and responsible way. The storage, transportation, transboundary movement and disposal of radioactive wastes should be guided by all the principles of the Rio Declaration on Environment and Development and by Agenda 21. States that generate radioactive wastes have a responsibility to ensure their safe storage and disposal. In general, radioactive wastes should be disposed of in the territory of the State in which they are generated as far as is compatible with the safety of the management of such material. Each country has the responsibility of ensur-

ing that radioactive wastes that fall within its jurisdiction are managed properly in accordance with internationally accepted principles, taking fully into account any transboundary effects. The international community should make all efforts to prohibit the export of radioactive wastes to those countries that do not have appropriate waste treatment and storage facilities. The international community recognizes that regional arrangements or jointly used facilities might be appropriate for the disposal of such wastes in certain circumstances. The management²⁸ of radioactive wastes should be undertaken in a manner consistent with international law, including the provisions of relevant international and regional conventions, and with internationally accepted standards. It is important to intensify safety measures with regard to radioactive wastes. States, in cooperation with relevant international organizations, where appropriate, should not promote or allow the storage or disposal of high-level, intermediate-level or low-level radioactive wastes near the marine environment unless they determine that scientific evidence, consistent with the applicable internationally agreed principles and guidelines, shows that such storage or disposal poses no unacceptable risk to people or the marine environment and does not interfere with other legitimate uses of the sea. In the process of the consideration of that evidence, appropriate application of the precautionary approach principle should be made. Further action is needed by the international community to address the need for enhancing awareness of the importance of the safe management of radioactive wastes, and to ensure the prevention of incidents and accidents involving the uncontrolled release of such wastes.

60. One of the main recommendations of Agenda 21 and of the Commission on Sustainable Development at its second session in this area was to support the ongoing efforts of the

International Atomic Energy Agency (IAEA), the International Maritime Organization (IMO) and other relevant international organizations. The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management currently being negotiated under the auspices of IAEA is now close to completion. It will provide a comprehensive codification of international law and a guide to best practices in this area. It will rightly be based on all the principles of best practice for this subject that have evolved in the international community, including the principle that, in general, radioactive wastes should be disposed of in the State in which they were generated as far as is compatible with the safety of the management of such material. Governments should finalize this text and are urged to ratify and implement it as soon as possible so as to further improve practice and strengthen safety in this area. Transportation of irradiated nuclear fuel (INF) and high-level waste by sea should be guided by the INF Code, which should be considered for development into a mandatory instrument. The issue of the potential transboundary environmental effects of activities related to the management²⁸ of radioactive wastes and the question of prior notification, relevant information and consultation with States that could potentially be affected by such effects should be further addressed within the appropriate forums.

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61. Increased global and regional cooperation, including exchange of information and experience and transfer of appropriate technologies, is needed to improve the management of radioactive wastes. There is a need to support the clean-up of sites contaminated as a result of all types of nuclear activity and

to conduct health studies in the regions around those sites, as appropriate, with a view to identifying where health treatment may be needed and should be provided. Technical assistance should be provided to developing countries, recognizing the special needs of small island developing States in particular, to enable them to develop or improve procedures for the management and safe disposal of radioactive wastes deriving from the use of radionuclides in medicine, research and industry.

Land and sustainable agriculture

62. Land degradation and soil loss threaten the livelihood of millions of people and future food security, with implications for water resources and the conservation of biodiversity. There is an urgent need to define ways to combat or reverse the worldwide accelerating trend of soil degradation, using an ecosystem approach, taking into account the needs of populations living in mountain ecosystems and recognizing the multiple functions of agriculture. The greatest challenge for humanity is to protect and sustainably manage the natural resource base on which food and fibre production depend, while feeding and housing a population that is still growing. The international community has recognized the need for an integrated approach to the protection and sustainable management of land and soil resources, as stated in decision III/11 of the Conference of the Parties to the Convention on Biological Diversity,²⁹ including identification of land degradation, which involves all interested parties at the local as well as the national level, including farmers, small-scale food producers, indigenous people(s), non-governmental organizations and, in particular, women, who have a vital role in rural communities. This should include action to ensure secure land tenure and access to land, credit and training, as well as the removal of

obstacles that inhibit farmers, especially small-scale farmers and peasants, from investing in and improving their lands and farms.

63. It remains essential to continue efforts for the eradication of poverty through, *inter alia*, capacity-building to reinforce local food systems, improving food security and providing adequate nutrition for the more than 800 million undernourished people in the world, located mainly in developing countries. Governments should formulate policies that promote sustainable agriculture as well as productivity and profitability. Comprehensive rural policies are required to improve access to land, combat poverty, create employment and reduce rural emigration. In accordance with the commitments agreed to in the Rome Declaration on World Food Security and the World Food Summit Plan of Action, adopted by the World Food Summit (Rome, 13–17 November 1996),³⁰ sustainable food security for both the urban and the rural poor should be a policy priority, and developed countries and the international community should provide assistance to developing countries to this end. To meet these objectives, Governments should attach high priority to implementing the commitments of the Rome Declaration and Plan of Action, especially the call for a minimum target of halving the number of undernourished people in the world by the year 2015. Governments and international organizations are encouraged to implement the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture, adopted by the Interna-

The greatest challenge for humanity is to protect and sustainably manage the natural resource base on which food and fibre production depend, while feeding and housing a growing population.

tional Technical Conference on Plant Genetic Resources (Leipzig, Germany, 17-23 June 1996). At the sixth session of the Commission on Sustainable Development, in 1998, the issues of sustainable agriculture and land use should be considered in relation to fresh water. The challenge for agricultural research is to increase yields on all farmlands while protecting and conserving the natural resource base. The international community and Governments must continue or increase investments in agricultural research because it can take years or decades to develop new lines of research and put research findings into sustainable practice on the land. Developing countries, particularly those with high population densities, will need international cooperation to gain access to the results of such research and to technology aimed at improving agricultural productivity in limited spaces. More generally, international cooperation continues to be needed to assist developing countries in many other aspects of basic requirements of agriculture. There is a need to support the continuation of the reform process in conformity with the Uruguay Round Agreements, particularly article 20 of the Agreement on Agriculture,³¹ and to fully implement the World Trade Organization Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries.³¹

Desertification and drought

64. Governments are urged to conclude (by signing and ratifying, accepting, approving and/or acceding to) and to implement the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa, which entered into force on 26 December 1996, as soon as possible, and to support and

actively participate in the first session of the Conference of the Parties to the Convention, which is to be held in Rome in September 1997.

65. The international community is urged to recognize the vital importance and necessity of international cooperation and partnership in combating desertification and mitigating the effects of drought. In order to increase the effectiveness and efficiency of existing financial mechanisms, the international community, in particular developed countries, should therefore support the global mechanism that would have the capacity to promote actions leading to the mobilization and channelling of substantial resources for advancing the implementation of the Convention and its regional annexes, and to contribute to the eradication of poverty, which is one of the principal consequences of desertification and drought in the majority of affected countries. Another view was that the international community, in particular developed countries, should provide new and additional resources towards the same ends. The transfer to developing countries of environmentally sound, economically viable and socially acceptable technologies relevant to combating desertification and/or mitigating the effects of drought, with a view to contributing to the achievement of sustainable development in affected areas, should be undertaken without delay on mutually agreed terms.

Biodiversity

66. There remains an urgent need for the conservation and sustainable use of biological diversity and the fair and equitable sharing of benefits arising from the utilization of components of genetic resources. The threat to biodiversity stems mainly from habitat destruction, over-harvesting, pollution and the inappropriate introduction of foreign plants and ani-

mals. There is an urgent need for Governments and the international community, with the support of relevant international institutions, as appropriate.

(a) To take decisive action to conserve and maintain genes, species and ecosystems with a view to promoting the sustainable management of biological diversity;

(b) To ratify the Convention on Biological Diversity and implement it fully and effectively together with the decisions of the Conference of the Parties, including recommendations on agricultural biological diversity and the Jakarta Mandate on Marine and Coastal Biological Diversity, and pursue urgently other tasks identified by the Conference of the Parties at its third meeting under the work programme on terrestrial biological diversity,³² within the context of the ecosystems approach adopted in the Convention;

(c) To undertake concrete actions for the fair and equitable sharing of the benefits arising from the utilization of genetic resources, consistent with the provisions of the Convention and the decisions of the Conference of the Parties on, *inter alia*, access to genetic resources and the handling of biotechnology and its benefits;

(d) To pay further attention to the provision of new and additional financial resources for the implementation of the Convention;

(e) To facilitate the transfer of technologies, including biotechnology, to developing countries, consistent with the provisions of the Convention;

(f) To respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles, and encourage the equitable sharing of the benefits arising from traditional knowledge so that those communities are adequately protected and rewarded, consistent with the provisions of the Convention on

Biological Diversity and in accordance with the decisions of the Conference of the Parties;

(g) To complete rapidly the biosafety protocol under the Convention on Biological Diversity, on the understanding that the UNEP International Technical Guidelines for Safety in Biotechnology may be used as an interim mechanism during its development, and to complement it after its conclusion, including the recommendations on capacity-building related to biosafety;

(h) To stress the importance of the establishment of a clearing-house mechanism by Parties to the Convention, consistent with the provisions of the Convention;

(i) To recognize the role of women in the conservation of biological diversity and the sustainable use of biological resources;

(j) To provide the necessary support to integrate the conservation of biological diversity and the sustainable use of biological resources into national development plans;

(k) To promote international cooperation to develop and strengthen national capacity-building, including human resource development and institution-building;

(l) To provide incentive measures at the national, regional and international levels to promote the conservation and sustainable use of biological diversity, and to consider means to enhance developing countries' capabilities to compete in the emerging market for biological resources, while improving the functioning of that market.

Sustainable tourism

67. Tourism is now one of the world's largest industries and one of its fastest growing economic sectors. The expected growth in the tourism sector and the increasing reliance of

many developing countries, including small island developing States, on this sector as a major employer and contributor to local, national, subregional and regional economies highlight the need to pay special attention to the relationship between environmental conservation and protection and sustainable tourism. In this regard, the efforts of developing countries to broaden the traditional concept of tourism to include cultural and ecotourism merit special consideration as well as the assistance of the international community, including the international financial institutions.

68. There is a need to consider further the importance of tourism in the context of Agenda 21. Tourism, like other sectors, uses resources, generates wastes and creates environmental, cultural and social costs and benefits in the process. For sustainable patterns of consumption and production in the tourism sector, it is essential to strengthen national policy development and enhance capacity in the areas of physical planning, impact assessment, and the use of economic and regulatory instruments, as well as in the areas of information, education and marketing. A particular concern is the degradation of biodiversity and fragile ecosystems, such as coral reefs, mountains, coastal areas and wetlands.

69. Policy development and implementation should take place in cooperation with all interested parties, especially the private sector and local and indigenous communities. The Commission should develop an action-oriented international programme of work on sustainable tourism, to be defined in cooperation with the World Tourism Organization, UNCTAD, UNEP, the Conference of the Parties to the Convention on Biological Diversity and other relevant bodies.

70. The sustainable development of tourism is of importance for all countries, in particular for small island developing States. International cooperation is needed to facilitate

tourism development in developing countries—including the development and marketing of ecotourism, bearing in mind the importance of the conservation policies required to secure long-term benefits from development in this sector—in particular in small island developing States, in the context of the Programme of Action for the Sustainable Development of Small Island Developing States.

Small island developing States

71. The international community reaffirms its commitment to the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. The Commission on Sustainable Development carried out a mid-term review of selected programme areas of the Programme of Action at its fourth session, in 1996. At its sixth session, in 1998, the Commission will undertake a review of all the outstanding chapters and issues of the Programme of Action. A full and comprehensive review of the Programme of Action, consistent with the review of other United Nations global conferences, is scheduled for 1999. The Commission, at its fifth session, adopted a resolution on modalities for the full and comprehensive review of the Programme of Action, in which it recommended that the General Assembly hold a two-day special session immediately preceding its fifty-fourth session for an in-depth assessment and appraisal of the implementation of the Programme of Action.³³ The full implementation of the decision would represent a significant contribution to achieving the objectives of the Global Conference for the Sustainable Development of Small Island Developing States.

72. Considerable efforts are being made at the national and regional levels to implement the Programme of Action. These efforts need to be supplemented by effective financial support

from the international community. External assistance for building the requisite infrastructure and for national capacity-building, including human and institutional capacity, and for facilitating access to information on sustainable development practices and the transfer of environmentally sound technologies, in accordance with paragraph 34.14 (b) of Agenda 21, is crucial for small island developing States to effectively attain the goals of the Programme of Action. To assist national capacity-building, the small island developing States information network and small island developing States technical assistance programme should be made operational as soon as possible, with support for existing regional and subregional institutions.

Natural disasters

73. Natural disasters have disproportionate consequences for developing countries, in particular small island developing States and countries with extremely fragile ecosystems. Programmes for sustainable development should give higher priority to the implementation of the commitments made at the World Conference on Natural Disaster Reduction (Yokohama, Japan, 23-27 May 1994) (see A/CONF.172/9 and Add.1). There is a particular need for capacity-building for disaster planning and management and for the promotion and facilitation of the transfer of early-warning technologies to countries prone to disasters, in particular developing countries and countries with economies in transition.

74. Given that further work is needed throughout the world, there is a special need to provide developing countries with further assistance in:

(a) Strengthening mechanisms and policies designed to reduce the effects of natural disasters, improve preparedness

and integrate natural disaster considerations in development planning, through, *inter alia*, access to resources for disaster mitigation and preparedness, response and recovery;

(b) Improving access to relevant technology and training in hazard and risk assessment and early-warning systems, and in protection from environmental disasters, consistent with national, subregional and regional strategies;

(c) Providing and facilitating technical, scientific and financial support for disaster preparedness and response in the context of the International Decade for Natural Disaster Reduction.

Major technological and other disasters with an adverse impact on the environment

75. Major technological and other disasters with an adverse impact on the environment can be a substantial obstacle in the way of achieving the goals of sustainable development in many countries. The international community should intensify cooperation in the prevention and reduction of such disasters and in disaster relief and post-disaster rehabilitation in order to enhance the capabilities of affected countries to cope with such situations.

C. Means of implementation

Financial resources and mechanisms

76. Financial resources and mechanisms play a key role in the implementation of Agenda 21. In general, the financing for the implementation of Agenda 21 will come from a country's own public and private sectors. For developing countries,

from the international community. External assistance for building the requisite infrastructure and for national capacity-building, including human and institutional capacity, and for facilitating access to information on sustainable development practices and the transfer of environmentally sound technologies, in accordance with paragraph 34 14 (b) of Agenda 21, is crucial for small island developing States to effectively attain the goals of the Programme of Action. To assist national capacity-building, the small island developing States information network and small island developing States technical assistance programme should be made operational as soon as possible, with support for existing regional and subregional institutions.

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ODA is a main source of external funding, and substantial new and additional funding for sustainable development and the implementation of Agenda 21 will be required. Hence, all financial commitments of Agenda 21, particularly those contained in chapter 33, and the provisions with regard to new and additional resources that are both adequate and predictable need to be urgently fulfilled. Renewed efforts are essential to ensure that all sources of funding contribute to economic growth, social development and environmental protection in the context of sustainable development and the implementation of Agenda 21.

77. For developing countries, particularly those in Africa and the least developed countries, ODA remains a main source of external funding; it is essential for the prompt and effective implementation of Agenda 21 and cannot generally be replaced by private capital flows. Developed countries should therefore fulfil the commitments undertaken to reach the accepted United Nations target of 0.7 per cent of GNP as soon as possible. In this context the present downward trend in the ratio of ODA to GNP causes concern. Intensified efforts should be made to reverse this trend, taking into account the need for improving the quality and effectiveness of ODA. In the spirit of global partnership, the underlying factors that have led to this decrease should be addressed by all countries. Strategies should be worked out for increasing donor support for aid programmes and revitalizing the commitments that donors made at the United Nations Conference on Environment and Development. Some countries already meet or exceed the 0.7 per cent agreed target. Official financial flows to developing countries, particularly the least developed countries, remain an essential element of the partnership embodied in Agenda 21. ODA plays a significant role, *inter alia*, in capacity-building, infrastructure, combating poverty and envi-

ronmental protection in developing countries, and a crucial role in the least developed countries. ODA can play an important complementary and catalytic role in promoting economic growth and may, in some cases, play a catalytic role in encouraging private investment and, where appropriate, all aspects of country-driven capacity-building and strengthening.

78. Funding by multilateral financial institutions through their concessional mechanisms is also essential to developing countries in their efforts to fully implement the sustainable development objectives contained in Agenda 21. Such institutions should continue to respond to the development needs and priorities of developing countries. Developed countries should urgently meet their commitments under the eleventh replenishment of the International Development Association (IDA).

79. Continued and full donor commitment to adequate, sustained and predictable funding for GEF operations is important for developing countries so that global environmental benefits can be further achieved. Donor countries are urged to engage in providing new and additional resources, with a view to equitable burden-sharing, through the satisfactory replenishment of GEF, which makes available grant and concessional funding designed to achieve global environmental benefits, thereby promoting sustainable development. Consideration should be given to further exploring the flexibility of the existing mandate of GEF in supporting activities to achieve global environmental benefits. With regard to the project cycle, further efforts should be made to continue streamlining the decision-making process in order to maintain an effective and efficient, as well as transparent, participatory and democratic framework. GEF, when acting as the operating entity of the financial

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mechanism of the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity, should continue to operate in conformity with those Conventions and promote their implementation. The GEF implementing agencies, the United Nations Development Programme (UNDP), UNEP and the World Bank, should strengthen, as appropriate and in accordance with their respective mandates, their cooperation at all levels, including the field level.

80. The efficiency, effectiveness and impact of the operational activities of the United Nations system must be enhanced by, *inter alia*, a substantial increase in their funding on a predictable, continuous and assured basis, commensurate with the increasing needs of developing countries, as well as through the full implementation of General Assembly resolutions 47/199 and 48/162. There is a need for a substantial increase in resources for operational activities for development on a predictable, continuous and assured basis, commensurate with the increasing needs of developing countries.

81. Private capital is a major tool for achieving economic growth in a growing number of developing countries. Higher levels of foreign private investment should be mobilized, given its mounting importance. To stimulate higher levels of private investment, Governments should aim at ensuring macroeconomic stability, open trade and investment policies, and well-functioning legal and financial systems. Further studies should be undertaken, including studies on the design of an appropriate environment, at both the national and international levels, for facilitating foreign private investment, in particular foreign direct investment (FDI) flows to developing countries, and enhancing its contribution to sustainable development. To ensure that such investments are supportive of sustainable development objectives, it is essential that the national Gov-

ernments of both investor and recipient countries provide appropriate regulatory frameworks and incentives for private investment. Therefore further work should be undertaken on the design of appropriate policies and measures aimed at promoting long-term investment flows to developing countries for activities that increase their productive capability, and at reducing the volatility of these flows. ODA donors and multilateral development banks are encouraged to strengthen their commitment to supporting investment in developing countries in a manner that jointly promotes economic growth, social development and environmental protection.

82. The external debt problem continues to hamper the efforts of developing countries to achieve sustainable development. To resolve the remaining debt problems of the heavily indebted poor countries, creditor and debtor countries and international financial institutions should continue their efforts to find effective, equitable, development-oriented and durable solutions to the debt problem, including debt relief in the form of debt rescheduling, debt reduction, debt swaps and, as appropriate, debt cancellation, as well as grants and concessional flows that will help restore creditworthiness. The joint World Bank/

International Monetary Fund (IMF) Heavily Indebted Poor Countries (HIPC) Debt Initiative supported by the Paris Club creditor countries is an important development to reduce the multilateral debt problem. Implementation of the HIPC Debt Initiative requires additional financial resources from both bilateral and multilateral creditors without affecting the support required for the development activities of developing countries.

Further studies should be undertaken for facilitating foreign private investment in developing countries and enhancing its contribution to sustainable development.

83. A fuller understanding of the impact of indebtedness on the pursuit of sustainable development by developing countries is needed. To this end, the United Nations Secretariat, the World Bank and IMF are invited to collaborate with UNCTAD in further considering the interrelationship between indebtedness and sustainable development for developing countries.

84. While international cooperation is very important in assisting developing countries in their development efforts, in general financing for the implementation of Agenda 21 will come from countries' own public and private sectors. Policies for promoting domestic resource mobilization, including credit, could encompass sound macroeconomic reforms, including fiscal and monetary policy reforms, review and reform of existing subsidies, and the promotion of personal savings and access to credit, especially micro-credit, in particular for women. Such policies should be decided by each country, taking into account its own characteristics and capabilities and different levels of development, especially as reflected in national sustainable development strategies, where they exist.

85. There is a need for making existing subsidies more transparent in order to increase public awareness of their actual economic, social and environmental impact, and for reforming or, where appropriate, removing them. Further national and international research in that area should be promoted in order to assist Governments in identifying and considering phasing out subsidies that have market-distorting, and socially and environmentally damaging, impacts. Subsidy reductions should take full account of the specific conditions and the different levels of development of individual countries and should consider potentially regressive impacts, particularly on developing countries. In addition, it would be desirable to use international cooperation and coordination to promote the

reduction of subsidies where these have important implications for competitiveness.

86. In order to reduce the barriers to the expanded use of economic instruments, Governments and international organizations should collect and share information on their use and introduce pilot schemes that would, *inter alia*, demonstrate how to make the best use of them while avoiding adverse effects on competitiveness and the terms of trade of all countries, particularly developing countries, and on marginalized and vulnerable sectors of society. When introducing economic instruments that raise the cost of economic activities for households and small and medium-sized enterprises (SMEs), Governments should consider gradual phase-ins, public education programmes and targeted technical assistance as strategies for reducing distributional impacts. Various studies and practical experience in a number of countries, in particular developed countries, indicate that the appropriate use of relevant economic instruments may help generate positive possibilities for shifting consumer and producer behaviour to more sustainable directions in those countries. There is, however, a need to conduct further studies and test practical experience in more countries, taking into account country-specific conditions and the acceptability, legitimacy, equity, efficiency and effectiveness of such economic instruments.

87. Innovative financial mechanisms are currently under discussion in international and national forums but have not yet fully evolved conceptually. The Secretary-General is to submit a report concerning innovative financing mechanisms to the Economic and Social Council at its substantive session of 1997. In view of the widespread interest in those mechanisms, appropriate organizations, including UNCTAD, the World Bank and IMF, are invited to consider conducting forward-looking studies of concerted action on such mecha-

nisms and to share them with the Commission on Sustainable Development, other relevant intergovernmental organizations and non-governmental organizations. In this regard, innovative funding should complement ODA, not replace it. New initiatives for cooperative implementation of environment and development objectives under mutually beneficial incentive structures should be further explored.

Transfer of environmentally sound technologies

88. The availability of scientific and technological information and access to and transfer of environmentally sound technologies are essential requirements for sustainable development. There is an urgent need for developing countries to acquire greater access to environmentally sound technologies if they are to meet the obligations agreed at the United Nations Conference on Environment and Development and in the relevant international conventions. The ability of developing countries to participate in, benefit from and contribute to rapid advances in science and technology can significantly influence their development. This calls for the urgent fulfilment of all the United Nations Conference on Environment and Development commitments concerning concrete measures for the transfer of environmentally sound technologies to developing countries. The international community should promote, facilitate and finance, as appropriate, access to and transfer of environmentally sound technologies and the corresponding know-how, in particular to developing countries, on favourable terms, including concessional and preferential terms, as mutually agreed, taking into account the need to protect intellectual property rights as well as the special needs of developing countries for the implementation of Agenda 21. Current forms of cooperation involving the public and private sectors of

developing and developed countries should be built upon and expanded. In this context, it is important to identify barriers and restrictions to the transfer of publicly and privately owned environmentally sound technologies, with a view to reducing such constraints while creating specific incentives, fiscal and otherwise, for the transfer of such technologies. Progress in the fulfilment of all the provisions contained in chapter 34 of Agenda 21 should be reviewed regularly as part of the multi-year work programme of the Commission on Sustainable Development.

89. Technology transfer and the development of the human and institutional capacity to adapt, absorb and disseminate technologies, as well as to generate technical knowledge and innovations, are part of the same process and must be given equal importance. Governments have an important role to play in providing, *inter alia*, research and development institutions with incentives to promote and contribute to the development of institutional and human capacities.

90. Much of the most advanced environmentally sound technology is developed and held by the private sector. The creation of an enabling environment, on the part of both developed and developing countries, including supportive economic and fiscal measures, as well as a practical system of environmental regulations and compliance mechanisms, can help to stimulate private sector investment in and transfer of environmentally sound technology to developing countries. New ways of financial intermediation for the financing of environmentally sound technologies, such as "green credit lines", should be examined. Further efforts should be made by Governments and international development institutions to

There is an urgent need for developing countries to acquire greater access to environmentally sound technologies.

facilitate the transfer of privately owned technology on concessional terms, as mutually agreed, to developing countries, especially the least developed countries.

91. A proportion of technology is held or owned by Governments and public institutions or results from publicly funded research and development activities. The Government's control and influence over the technological knowledge produced in publicly funded research and development institutions open up the potential for the generation of publicly owned technologies that could be made accessible to developing countries, and could be an important means for Governments to catalyse private sector technology transfer. Proposals for the further study of the options with respect to those technologies and publicly funded research and development activities are to be welcomed.

92. Governments should create a legal and policy framework that is conducive to technology-related private sector investments and long-term sustainable development objectives. Governments and international development institutions should continue to play a key role in establishing public-private partnerships, within and between developed and developing countries and countries with economies in transition. Such partnerships are essential for linking the advantages of the private sector—access to finance and technology, managerial efficiency, entrepreneurial experience and engineering expertise—with the capacity of Governments to create a policy environment that is conducive to technology-related private sector investments and long-term sustainable development objectives.

93. The creation of centres for the transfer of technology at various levels, including the regional level, could greatly contribute to achieving the objective of transfer of environmentally sound technologies to developing countries. For this pur-

pose, existing United Nations bodies, including, as appropriate, the Commission on Science and Technology for Development, UNCTAD, the United Nations Industrial Development Organization (UNIDO), UNEP and the regional commissions, should cooperate and mechanisms be used, such as technical cooperation among developing countries (TCDC) and economic cooperation among developing countries (ECDC).

94. Governments and international development institutions can also play an important role in bringing together companies from developed and developing countries and countries with economies in transition so that they can create sustainable and mutually beneficial business linkages. Incentives should be provided to stimulate the building of joint ventures between small and medium-sized enterprises of developed and developing countries and countries with economies in transition, and cleaner production programmes in public and private companies should be supported.

95. Governments of developing countries should take appropriate measures to strengthen South-South cooperation for technology transfer and capacity-building. Such measures could include the networking of existing national information systems and sources on environmentally sound technologies, and the networking of national cleaner production centres, as well as the establishment of sector-specific regional centres for technology transfer and capacity-building. Interested donor countries and international organizations should further assist developing countries in those efforts through, *inter alia*, supporting trilateral arrangements and contributing to the United Nations Voluntary Trust Fund for South-South Cooperation.

96. Attention must also be given to technology needs assessment as a tool for Governments in identifying a portfolio for technology transfer projects and capacity-building activities to be undertaken to facilitate and accelerate the development,

adoption and dissemination of environmentally sound technologies in particular sectors of the national economy. It is also important for Governments to promote the integration of environmental technology assessment with technology needs assessment as an important tool for evaluating environmentally sound technologies and the organizational, managerial and human resource systems related to the proper use of those technologies.

97. There is a need to further explore and enhance the potential of global electronic information and telecommunication networks. This would enable countries to choose among the available technological options that are most appropriate to their needs. In this respect, the international community should assist developing countries in enhancing their capacities.

Capacity-building

98. Renewed commitment and support from the international community is essential to support national efforts for capacity-building in developing countries and countries with economies in transition.

99. The United Nations Development Programme, *inter alia*, through its Capacity 21 programme, should give priority attention to building capacity for the elaboration of sustainable development strategies based on participatory approaches. In this context, developing countries should be assisted, particularly in the areas of the design, implementation and evaluation of programmes and projects.

100. Capacity-building efforts should pay particular attention to the needs of women in order to ensure that their skills and experience are fully used in decision-making at all levels. The special needs, culture, traditions and expertise of indigenous people must be recognized. International financial

institutions should continue to give high priority to funding capacity-building for sustainable development in developing countries and countries with economies in transition. Special attention should also be given to strengthening the ability of developing countries to absorb and generate technologies. International cooperation needs to be strengthened to promote the endogenous capacity of developing countries to utilize scientific and technological developments from abroad and to adapt them to local conditions. The role of the private sector in capacity-building should be further promoted and enhanced. South-South cooperation in capacity-building should be further supported through “triangular” cooperative arrangements. Both developed and developing countries, in cooperation with relevant international institutions, need to strengthen their efforts to develop and implement strategies for more effective sharing of environmental expertise and data.

Science

101. Public and private investment in science, education and training, and research and development should be increased significantly, with emphasis on the need to ensure equal access to opportunities for girls and women.

102. International consensus-building is facilitated by the availability of authoritative scientific evidence. There is a need for further scientific cooperation, especially across disciplines, in order to verify and strengthen scientific evidence and make it accessible to developing countries. This evidence is important for assessing environmental conditions and changes. Steps should also be taken by Governments, academia and scientific institutions to improve access to scientific information related to the environment and sustainable development.

The promotion of existing regional and global networks may be useful for this purpose.

103. Increasing efforts to build and strengthen scientific and technological capacity in developing countries is an extremely important objective. Multilateral and bilateral donor agencies and Governments, as well as specific funding mechanisms, should continue to enhance their support for developing countries. Attention should also be given to countries with economies in transition.

104. The international community should also actively collaborate in promoting innovations in information and communication technologies for the purpose of reducing environmental impacts, *inter alia*, by taking approaches to technology transfer and cooperation that are based on user needs.

Education and awareness

105. Education increases human welfare, and is a decisive factor in enabling people to become productive and responsible members of society. A fundamental prerequisite for sustainable development is an adequately financed and effective educational system at all levels, particularly the primary and secondary levels, that is accessible to all and that augments both human capacity and well-being. The core themes of education for sustainability include lifelong learning, interdisciplinary education, partnerships, multicultural education and empowerment. Priority should be given to ensuring women's and girls' full and equal access to all levels of education and training. Special attention should also be paid to the training of teachers, youth leaders and other educators. Education should also be seen as a means of empowering youth and vulnerable and marginalized groups, including those in rural areas, through inter-generational partnerships and peer education. Even in countries

with strong education systems, there is a need to reorient education, awareness and training so as to promote widespread public understanding, critical analysis and support for sustainable development. Education for a sustainable future should engage a wide spectrum of institutions and sectors, including but not limited to business/industry, international organizations, youth, professional organizations, non-governmental organizations, higher education, government, educators and foundations, to address the concepts and issues of sustainable development, as embodied throughout Agenda 21, and should include the preparation of sustainable development education plans and programmes, as emphasized in the Commission's work programme on the subject adopted in 1996.³⁴ The concept of education for a sustainable future will be further developed by the United Nations Educational, Scientific and Cultural Organization, in cooperation with others.

106. It is necessary to support and strengthen universities and other academic centres in promoting cooperation among them, particularly cooperation between those of developing countries and those of developed countries.

International legal instruments and the Rio Declaration on Environment and Development

107. The implementation and application of the principles contained in the Rio Declaration on Environment and Development should be the subject of regular assessment and reporting to the Commission on Sustainable Development by the Secretariat in collaboration with UNEP, in particular.

108. Access to information and broad public participation in decision-making are fundamental to sustainable development. Further efforts are required to promote, in the light of country-

specific conditions, the integration of environment and development policies, through appropriate legal and regulatory policies, instruments and enforcement mechanisms at the national, state, provincial and local levels. At the national level, each individual should have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in the communities, and the opportunity to participate in decision-making processes. Governments and legislators, with the support, where appropriate, of competent international organizations, should establish judicial and administrative procedures for legal redress and remedy of actions affecting environment and development that may be unlawful or infringe on rights under the law, and should provide access to individuals, groups and organizations with a recognized legal interest. Access should be provided to effective judicial and administrative channels for affected individuals and groups to ensure that all authorities, both national and local, and other civil organizations remain accountable for their actions in accordance with their obligations, at the appropriate levels for the country concerned, taking into account the judicial and administrative systems of the country concerned.

109. Taking into account the provisions of chapter 39, particularly paragraph 39.1, of Agenda 21, it is necessary to continue the progressive development and, as and when appropriate, codification of international law related to sustainable development. Relevant bodies in which such tasks are being undertaken should cooperate and coordinate in this regard.

110. Implementation of and compliance with commitments made under international treaties and other instruments in the field of the environment remain a priority. Implementation can be promoted by secure, sustained and predictable financial support, sufficient institutional capacity, human resources and

adequate access to technology. Cooperation on implementation between States on mutually agreed terms may help reduce potential sources of conflict between States. In this context, States should further study and consider methods to broaden and make more effective the range of techniques available at present, taking into account relevant experience under existing agreements and, where appropriate, modalities for dispute avoidance and settlement, in accordance with the Charter of the United Nations. It is also important to further improve reporting and data-collection systems and to further develop appropriate compliance mechanisms and procedures, on a mutually agreed basis, to help and encourage States to fulfil all their obligations, including means of implementation, under multilateral environmental agreements. Developing countries should be assisted to develop these tools according to country-specific conditions.

Information and tools for measuring progress

111. The further development of cost-effective tools for collecting and disseminating information for decision makers at all levels through strengthened data collection, including, as appropriate, gender-disaggregated data and information that makes visible the unremunerated work of women for use in programme planning and implementation, compilation and analysis is urgently needed. In this context, emphasis will be placed on support for national and international scientific and technological data centres with appropriate electronic communication links between them.

112. A supportive environment needs to be established to enhance national capacities and capabilities for information collection, processing and dissemination, especially in developing countries, to facilitate public access to information on

global environmental issues through appropriate means, including high-tech information and communication infrastructure related to the global environment, in the light of country-specific conditions, using, where available, such tools as geographic information systems and video transmission technology, including global mapping. In this regard, international cooperation is essential.

113. Environmental impact assessments (EIAs) are an important national tool for sustainable development. In accordance with principle 17 of the Rio Declaration on Environment and Development, EIAs should be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority; where appropriate, they should be made available early in the project cycle.

114. The Commission's work programme on indicators of sustainable development should result in a practicable and agreed set of indicators, suited to country-specific conditions, including a limited number of aggregated indicators, to be used at the national level, on a voluntary basis, by the year 2000. Such indicators of sustainable development, including, where appropriate, and subject to nationally specific conditions, sector-specific ones, should play an important role in monitoring progress towards sustainable development at the national level and in facilitating national reporting, as appropriate.

115. National reports on the implementation of Agenda 21 have proved to be a valuable means of sharing information at the international and regional levels and, even more important, of providing a focus for the coordination of issues related to sustainable development at the national level within individual countries. National reporting should continue (see also para. 133 (b) and (c) below).