THE RIO DECLARATION

ON

ENVIRONMENT AND DEVELOPMENT (1992)

PREAMBLE

The United Nations Conference on Environment and Development,

Having met at Rio de Janeiro from 3 to 14 June 1992,

Reaffirming the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972, and seeking to build upon it,

With the goal of establishing a new and equitable global partnership through the creation of new levels of co-operation among States, key sectors of societies and people,

Working towards international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system,

Recognizing the integral and interdependent nature of the Earth, our home,

Proclaims that:

PRINCIPLE 1

Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

PRINCIPLE 2

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

PRINCIPLE 4

In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

PRINCIPLE 5

All States and all people shall co-operate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

PRINCIPLE 6

The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.

PRINCIPLE 7

States shall co-operate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

PRINCIPLE 8

To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

PRINCIPLE 9

States should co-operate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

PRINCIPLE 11

States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

PRINCIPLE 12

States should co-operate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

PRINCIPLE 13

States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also co-operate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

PRINCIPLE 14

States should effectively co-operate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.

PRINCIPLE 15

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

PRINCIPLE 17

Environmental impact assessment, as a national instrument, shall 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.

PRINCIPLE 18

States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted.

PRINCIPLE 19

States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.

PRINCIPLE 20

Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development.

PRINCIPLE 21

The creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all.

PRINCIPLE 22

Indigenous people and their communities, and other local communities, have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

PRINCIPLE 23

The environment and natural resources of people under oppression, domination and occupation shall be protected.

Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and co-operate in its further development, as necessary.

PRINCIPLE 25

Peace, development and environmental protection are interdependent and indivisible.

PRINCIPLE 26

States shall resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations.

PRINCIPLE 27

States and people shall co-operate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.

THE EARTH SUMMIT AND AGENDA 21

From: Global Tomorrow Coalition Sustainable Development Tool Kit.

INTRODUCTION

The United Nations Conference on Environment and Development (UNCED), which took place in Rio de Janeiro in June 1992, was a milestone event bringing together Heads of State and Chiefs of Government than any other meeting in the history of international relations, along with senior diplomats and government officials from around the globe, delegates from United Nations agencies, officials of international organizations, and many thousands of nongovernmental organization (NGO) representatives and journalists.

UNCED made it plain that we can no longer think of environment and economic and social development as isolated fields. In addition to major international treaties and agreements concluded at the Earth Summit on issues of global climate change, biological diversity, deforestation, and desertification, the Declaration of Rio contains fundamental principles on which nations can base their future decisions and policies, considering the environmental implications of socio-economic development.

Agenda 21 was a special product of the Earth Summit. It is a vast work program for the 21st century, approved by consensus among the world leaders in Rio, representing over 98% of the world's population. This historic document is 700 pages long and embraces all areas of sustainable development. A comprehensive blueprint for a global partnership, Agenda 21 strives to reconcile the twin requirements of a high quality environment and a healthy economy for all people of the world, while identifying key areas of responsibility as well as offering preliminary cost estimates for success.

The framing of Agenda 21 began well over a decade ago. By resolution 38/161 in December 1983, the UN General Assembly convened the World Commission on Environment and Development (WCED), chaired by Ms. Gro Harlem Brundtland, Prime Minister of Norway. The 22 distinguished members of the WCED worked for three years, conducting a series of public hearings throughout the world, reviewing specially commissioned research and reports, and carrying on extensive international dialogue, to produce their unanimous report, Our Common Future, which was presented to the UN General Assembly in October 1987 and disseminated world-wide. The report placed the concept of sustainable development as an urgent imperative on the global agenda, and led directly to the decision by the United Nations to convene the 1992 Earth Summit.

Agenda 21 reflects not only the testimony and counsel of the numerous technical and scientific advisers mobilized by the UNCED Secretariat under the leadership of Maurice F. Strong, but painstaking negotiation by the delegates of 172 sovereign nations. The Preparatory Committee, or

PrepCom, held four month-long meetings from August 1990 through the spring of 1992. deliberation at the Earth Summit, the 40 chapters of Agenda 21 were submitted in four sections to

the corresponding four major committees of the delegates.

Although Agenda 21 is a global consensus document, negotiation at Rio did not settle all

disputes to the satisfaction of each participant...and not necessarily in the best interests of all, seen from the broadest perspective. It is, however, a unique step forward on the road toward sustainability,

and offers a bold plan to mobilize local, national, and global action.

Overview of Agenda 21

SECTION ONE: SOCIAL AND ECONOMIC DIMENSIONS

The preamble and the following eight chapters consider the challenges that the adaptation of

human behaviour to sustainable development pose to prevailing social and economic structures and

institutions.

1. PREAMBLE

The preamble concludes, "Agenda 21 is a dynamic program. It will be carried out over time by

the various actors according to the different situations, capacities and priorities of countries and

regions...The process marks the beginning of a new global partnership..."

2. ACCELERATING SUSTAINABLE DEVELOPMENT

Calls for a global partnership to provide a dynamic and growing world economy based on an

"...open, equitable, secure, non-discriminatory, and predictable multilateral trading system," in which commodity exports of the developing countries can find markets at fair prices free of tariff and non-

tariff barriers.

Cost: \$8.8 billion

3. COMBATING POVERTY

Suggests that factors creating policies of development, resource management, and poverty be

integrated. This objective is to be sought by improving access of the poor to education and health care, to safe water and sanitation, and to resources, especially land; by restoration of degraded

resources; by empowerment of the disadvantaged, especially women, youth, and indigenous

peoples; by ensuring that "women and men have the same right and the means to decide freely and responsibly on the number of spacing of their children."

4. CHANGING CONSUMPTION PATTERNS

"One of the most serious problems now facing the planet is that associated with historical patterns of unsustainable consumption, and production, particularly in the industrialized countries." Social research and policy should bring forward new concepts of status and lifestyles which are "less dependent on the Earth's finite resources and more in harmony with its carrying capacity." Greater efficiency in the use of energy and resources--for example, reducing wasteful packaging of products-must be sought by new technology and new social values.

Cost of implementation: The recommended measures are unlikely to require significant new financial resources.

5. POPULATION AND SUSTAINABILITY

Urges governments to develop and implement population policies integral with their economic development programs. Health services should "include women-centered, women-managed, safe and effective reproductive health care and affordable, accessible services, as appropriate, for the responsible planning of family size..." Health services are to emphasize reduction of infant death rates which converge with low birth rates to stabilize world population at a sustainable number at the end of the century.

Cost of implementation: \$7 billion

6. PROTECTING AND PROMOTING HUMAN HEALTH

Calls for meeting basic health needs of all populations; provide necessary specialized environmental health services; co-ordinate involvement of citizens, and the health sector, in solutions to health problems. Health service coverage should be achieved for population groups in greatest need, particularly those living in rural areas. The preventative measures urged include reckoning with urban health hazards and risks from environmental pollution.

Cost of implementation: \$273 billion

7. SUSTAINABLE HUMAN SETTLEMENTS

Addresses the full range of issues facing urban-rural settlements, including: access to land, credit, and low-cost building materials by homeless poor and unemployed; upgrading of slums to ease the deficit in urban shelter; access to basic services of clean water, sanitation, and waste collection; use of appropriate construction materials, designs, and technologies; increased use of high-occupancy public transportation and bicycle and foot paths; reduction of long-distance commuting; support for the informal economic sector; development of urban renewal projects in partnership with non-governmental organizations; improved rural living conditions and land-use planning to prevent urban sprawl onto agricultural land and fragile regions.

Cost of implementation: \$218 billion

8. MAKING DECISIONS FOR SUSTAINABLE DEVELOPMENT

Calls on governments to create sustainable development strategies to integrate social and environmental policies in all ministries and at all levels, including fiscal measures and the budget. Encourages nations and corporate enterprises to integrate environmental protection, degradation, and restoration costs in decision-making at the outset, and to mount without delay the research necessary to reckon such costs, to develop protocols bringing these considerations into procedures at all levels of decision-making.

Cost of implementation: \$63 million

SECTION TWO: CONSERVATION AND MANAGEMENT OF RESOURCES

The environment itself is the subject of chapters 9 through 22, dealing with the conservation and management of resources for development.

9. PROTECTING THE ATMOSPHERE

Urges constraint and efficiency in energy production and consumption, development of renewable energy sources; and promotion of mass transit technology and access thereto for developing countries. Conservation and expansion of "all sinks for greenhouse gases" is extolled, and transboundary pollution recognized as "subject to international controls." Governments need to develop more precise ways of predicting levels of atmospheric pollutants; modernize existing power systems to gain energy efficiency; and increase energy efficiency education and labelling programs.

Cost of implementation: \$21 billion

10. M ANAGING LAND SUSTAINABLY

Calls on governments to develop policies that take into account the land-resource base, population changes, and the interests of local people; improve and enforce laws and regulations to support the sustainable use of land, and restrict the transfer of productive arable land to other uses; use techniques such as landscape ecological planning that focus on an ecosystem or a watershed, and encourage sustainable livelihoods; include appropriate traditional and indigenous land-use practices, such as pastoralism, traditional land reserves, and terraced agriculture in land management; encourage the active participation in decision-making of those affected groups that have often been excluded, such as women, youth, indigenous people, and other local communities; test ways of putting the value of land and ecosystems into national reports on economic performance; ensure that institutions that deal with land and natural resources integrate environmental, social, and economic issues into planning.

Cost of implementation: \$50 million

11. COMBATING DEFORESTATION

Calls for concerted international research and conservation efforts to control harvesting of forests and "uncontrolled degradation and conversion to other types of land use," to develop the values of standing forests under sustained cultivation by indigenous technologies and agroforestry, and to expand the shrunken world-forest cover. Governments, along with business, nongovernmental and other groups should: plant more forests to reduce pressure on primary and old-growth forests; breed trees that are more productive and resistant to stress; protect forests and reduce pollutants that affect them, including air pollution that flows across borders; limit and aim to halt destructive shifting cultivation by addressing the underlying social and ecological causes; use environmentally sound, more efficient and less polluting methods of harvesting; minimize wood waste; promote small-scale enterprises; develop urban forestry for the greening of all places where people live; and encourage low-impact forest use and sustainable management of areas adjacent to forests.

Cost of implementation: \$31.25 billion

12. COMBATING DESERTIFICATION AND DROUGHT

Calls for intensive study of the process in its relation to world climate change to improve forecasting, study of natural vegetation succession to support large-scale revegetation and afforestation, checking and reversal of erosion, and like small-and grand-scale measures. For inhabitants whose perilously adapted livelihoods are threatened or erased, resettlement and adaptation to new life ways must be assisted. Governments must: adopt national sustainable land-use plans and sustainable management of water resources; accelerate planting programs; and help to reduce the demand for fuelwood through energy efficiency and alternative energy programs.

Cost of implementation: \$8.6 billion.

13. SUSTAINABLE MOUNTAIN DEVELOPMENT

Calls for study, protection, and restoration of these fragile ecosystems and assistance to populations in regions suffering degradation. Governments should: promote erosion-control measures that are low-cost, simple, and easily used; offer people incentives to conserve resources and use environment-friendly technologies; produce information on alternative livelihoods; create protected areas to save wild genetic material; identify hazardous areas that are most vulnerable to erosion floods, landslides, earthquakes, snow avalanches, and other natural hazards and develop early-warning systems and disaster-response teams; identify mountain areas threatened by air pollution from neighbouring industrial and urban areas; and create centres of information on mountain ecosystems.

Cost of implementation: \$13 billion.

14. SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

Rising population food needs must be met through: increased productivity and co-operation involving rural people, national governments, the private sector, and the international community; wider access to techniques for reducing food spoilage, loss to pests, and for conserving soil and water resources; ecosystem planning; access of private ownership and fair market prices; advice and training in modern and indigenous conservation techniques including conservation tillage, integrated pest management, crop rotation, use of plant nutrients, agroforestry, terracing and mixed cropping; and better use and equitable distribution of information on plant and animal genetic resources.

Cost of implementation: \$30.8 billion

15. CONSERVATION OF BIOLOGICAL DIVERSITY

Recognizing the need to conserve and maintain genes, species, and ecosystems, urges nations, with the co-operation of the United Nations, nongovernmental organizations, the private sector, and financial institutions, to: conduct national assessments on the state of biodiversity; develop national strategies to conserve and sustain biological diversity and make these part of overall national development strategies; conduct long-term research into importance of biodiversity for ecosystems that produce goods and environmental benefits; protect natural habitats; encourage traditional methods of agriculture, agroforestry, forestry, range and wildlife management which use, maintain, or increase biodiversity.

Cost of implementation: \$3 billion.

16. M ANAGEMENT OF BIOTECHNOLOGY

Calls for the transfer of biotechnology to the developing countries and the creation of the infrastructure of human capacity and institutions to put it to work there. Highlights need for internationally agreed principles on risk assessment and management of all aspects of biotechnology, to: improve productivity and the nutritional quality and shelf-life of food and animal feed products; develop vaccines and techniques for preventing the spread of diseases and toxins; increase crop resistance to diseases and pests, so that there will be less need for chemical pesticides; develop safe and effective methods for the biological control of disease-transmitting insects, especially those resistant to pesticides; contribute to soil fertility; treat sewage, organic chemical wastes, and oil spills more cheaply and effectively than conventional methods; and tap mineral resources in ways that cause less environmental damage.

Cost of implementation: \$20 billion.

17. PROTECTING AND MANAGING THE OCEANS

Sets out goals and programs under which nations may conserve "their" oceanic resources for their own and the benefit of the nations that share oceans with them, and international programs that may protect the residual commons in the interests even of land-locked nations, such as: anticipate

and prevent further degradation of the marine environment and reduce the risk of long-term or irreversible effects on the oceans; ensure prior assessment of activities that may have significant adverse impact on the seas; make marine environmental protection part of general environmental, social, and economic development policies; apply the "polluter pays" principle, and use economic incentives to reduce polluting of the seas; improve the living standards of coast-dwellers; reduce or eliminate discharges of synthetic chemicals that threaten to accumulate to dangerous levels in marine life; control and reduce toxic-waste discharges; stricter international regulations to reduce the risk of accidents and pollution from cargo ships; develop land-use practices that reduce run-off of soil and wastes to rivers, and thus to the seas; stop ocean dumping and the incineration of hazardous wastes at sea.

Cost of implementation: \$13 billion.

18. PROTECTING AND MANAGING FRESH WATER

Sets out measures, from development of long-range weather and climate forecasting to cleanup of the most obvious sources of pollution, to secure the supply of fresh water for the next doubling of the human population. Focus is on developing low-cost but adequate services that can be installed and maintained at the community level to achieve universal water supply by 2025. The interim goals set for 2000 include: to provide all urban residents with at least 40 liters of safe drinking water per person per day; provide 75% of urban dwellers with sanitation; establish standards for the discharge of municipal and industrial wastes; have three-quarters of solid urban waste collected and recycled, or disposed of in an environmentally safe way; ensure that rural people everywhere have access to safe water and sanitation for healthy lives, while maintaining essential local environments; control water-associated diseases.

Cost of implementation \$54.7 billion.

19. SAFER USE OF TOXIC CHEMICALS

Seeks objectives such as: full evaluation of 500 chemicals before the year 2000; control of chemical hazards through pollution prevention, emission inventories, product labelling; use limitations, procedures for safe handling and exposure regulations; phase-out or banning of high-risk chemicals; consideration of policies based on the principle of producer liability; reduced risk by using less-toxic or non-chemical technologies; review of pesticides whose acceptance was based on criteria now recognized as insufficient or outdated; efforts to replace chemicals with other pest-control methods such as biological control; provision to the public of information on chemical hazards in the languages of those who use the materials; development of a chemical-hazard labelling system using easily understandable symbols; control of the export of banned or restricted chemicals and provision of information on any exports to the importing countries.

Cost of implementation: \$600 million.

20. MANAGING HAZARDOUS WASTES

Seeks international support in restraint of the trade and for containing the hazardous cargoes in safe sinks. Governments should: require and assist in the innovation by industry of cleaner production methods and of preventive and recycling technologies; encourage the phasing out of processes that produce high risks because of hazardous waste management; hold producers responsible for the environmentally unsound disposal of the hazardous wastes they generate; establish public information programs and ensure that training programs provided for industry and government workers on hazardous-waste issues, especially use minimization; build treatment centres for hazardous wastes, either at the national or regional level; ensure that the military conforms to national environmental norms for hazardous-waste treatment and disposal; ban the export of hazardous wastes to countries that are not equipped to deal with those wastes. Industry should: treat, recycle, reuse, and dispose of wastes at or close to the site where they are created.

Cost of implementation: \$18.5 billion

21. MANAGING SOLID WASTES AND SEWAGE

Governments should urge waste minimization and increased reuse/recycling as strategies toward sound waste treatment and disposal; encourage "life-cycle" management of the flow of material into and out of manufacturing and use; provide incentives to recycling; fund pilot programs, such as small-scale and cottage-based recycling industries, compost production, irrigation using treated waste water, and the recovery of energy from wastes; establish guidelines for the safe reuse of waste and encourage markets for recycled and reused products.

Cost of implementation: \$23.3 billion

22. MANAGING RADIOACTIVE WASTES

Calls for increasingly stringent measures to encourage countries to co-operate with international organizations to: promote ways of minimizing and limiting the creation of radioactive wastes; provide for the sage storage, processing, conditioning, transportation, and disposal of such wastes; provide developing countries with technical assistance to help them deal with wastes, or make it easier for such countries to return used radioactive material to suppliers; promote the proper planning of safe and environmentally sound ways of managing radioactive wastes, possibly including assessment of the environmental impact; strengthen efforts to implement the Code of Practice on the Transboundary Movements of Radioactive Wastes; encourage work to finish studies on whether the current voluntary moratorium on disposal of low-level radioactive wastes at sea should be replaced by a ban; not promote or allow storage or disposal of radioactive wastes near seacoasts or open seas, unless it is clear that this does not create an unacceptable risk to people and the marine environment; not export radioactive wastes to countries that prohibit the import of such waste.

Cost of implementation: \$8 million.

SECTION THREE: STRENGTHENING THE ROLE OF MAJOR GROUPS

The issues of how people are to be mobilized and empowered for their various roles in

sustainable development are addressed in chapters 23 through 32.

23. PREAMBLE

"Critical to the effective implementation of the objectives, policies, and mechanisms agreed to

by Governments in all program areas of Agenda 21 will be the commitment and involvement of all

social groups..."

24. WOMEN IN SUSTAINABLE DEVELOPMENT

Urges governments to face the status question; give girls equal access to education; reduce the

workloads of girls and women; make health-care systems responsive to female needs; open

employment and careers to women; and bring women into full participation in social, cultural, and public life. Governments should: ensure a role for women in national and international ecosystem

management and control of environmental degradation; ensure women's access to property rights,

as well as agricultural inputs and implements; take all necessary measures to eliminate violence

against women, and work to eliminate persistent negative images, stereotypes, and attitudes, and prejudices against women; develop consumer awareness among women to reduce or eliminate

unsustainable consumption; and begin to count the value of unpaid work.

Cost of implementation: \$40 million.

25. CHILDREN AND YOUTH IN SUSTAINABLE DEVELOPMENT

Calls on governments, by the year 2000, to ensure that 50% of their youth, gender balanced,

have access to secondary education or vocational training; teach students about the environment and sustainable development through their schooling; consult with and let youth participate in decisions

that affect the environment; enable youth to be represented at international meetings, and participate in decision-making at the United Nations; combat human rights abuses against youth and see that

their children are healthy, adequately fed, educated, and protected from pollution and toxic substances; and develop strategies that deal with the entitlement of young people to natural

resources.

Cost of implementation: \$1.5 million.

26. STRENGTHENING THE ROLE OF INDIGENOUS PEOPLES

Urges governments to enrol indigenous peoples in full global partnership, beginning with

measures to protect their rights and conserve their patrimony; recognize that indigenous lands need to be protected from environmentally unsound activities, and from activities the people consider to be

socially and culturally inappropriate; develop a national dispute resolution procedure to deal with settlement and land-use concerns; incorporate their rights and responsibilities into national legislation; recognize and apply elsewhere indigenous values, traditional knowledge and resource management

practices; and provide indigenous people with suitable technologies to increase the efficiency of their

resource management.

Cost of implementation: \$3 million.

27. PARTNERSHIPS WITH NONGOVERNMENTAL GROUPS [CIVIC GROUPS]

Calls on governments and the United Nations system to: invite nongovernmental groups to be involved in making policies and decisions on sustainable development; make NGOs a part of the

review process and evaluation of implementing Agenda 21; provide NGOs with timely access to information; encourage partnerships between NGOs and local authorities; review financial and

administrative support for NGOs; utilize NGO expertise and information; and create laws enabling

NGOs the right to take legal action to protect the public interest.

Cost of implementation: no estimate.

28. LOCAL AUTHORITIES

Calls on local authorities, by 1996, to undertake to promote a consensus in their local populations on "a local Agenda 21;" and, at all times, to invite women and youth into full participation

in the decision-making, planning, and implementation process; to consult citizens and community, business, and industrial organizations to gather information and build a consensus on sustainable

development strategies. This consensus would help them reshape local programs, policies, laws, and regulations to achieve desired objectives. The process of consultation would increase people's

awareness of sustainable development issues.

Cost of implementation: \$1 million.

29. WORKERS AND TRADE UNIONS

Challenges governments, businesses, and industries to work toward the goal of full employment, which contributes to sustainable livelihoods in safe, clean, and healthy environments, at

work and beyond, by fostering the active and informed participation of workers and trade unions in shaping and implementing environment and development strategies at both the national and international levels; increase worker education and training, both in occupational health and safety and in skills for sustainable livelihoods; and promote workers' rights to freedom of association and the right to organize. Unions and employees should design joint environmental policies, and set priorities

to improve the working environment and the overall environmental performance of business and develop more collective agreements aimed at achieving sustainability.

Cost of implementation: \$300 million.

30. B USINESS AND INDUSTRY

Calls on governments to: use economic incentives, laws, standards, and more streamlined administration to promote sustainably managed enterprises with cleaner production; encourage the creation of venture-capital funds; and co-operate with business, industry, academia, and international organizations to support training in the environmental aspects of enterprise management. Business and industry should: develop policies that result in operations and products that have lower environmental impacts; ensure responsible and ethical management of products and processes from the point of view of health, safety, and the environment; make environmentally sound technologies available to affiliates in developing countries without prohibitive charges; encourage overseas affiliates to modify procedures in order to reflect local ecological conditions and share information with governments; create partnerships to help people in smaller companies learn business skills; establish national councils for sustainable development, both in the formal business community and in the informal sector, which includes small-scale businesses, such as artisans; increase research and development of environmentally sound technologies and environmental management systems; report annually on their environmental records; and adopt environmental and sustainable development codes of conduct.

Cost of implementation: no estimate.

31. SCIENTISTS AND TECHNOLOGISTS

Indicates that governments should: decide how national scientific and technological programs could help make development more sustainable; provide for full and open sharing of information among scientists and decision-makers; fashion national reports that are understandable and relevant to local sustainable development needs; form national advisory groups to help scientists and society develop common values on environmental and developmental ethics; and put environment and development ethics into education and research priorities. Scientists and technologies have special responsibilities to: search for knowledge, and to help protect the biosphere; increase and strengthen dialogue with the public; and develop codes of practice and guidelines that reconcile human needs and environmental protection.

Cost of implementation: \$20 million.

32. STRENGTHENING THE ROLE OF FARMERS

To develop sustainable farming strategies, calls on governments to collaborate with national and international research centres and nongovernmental organizations to: develop environmentally sound farming practices and technologies that improve crop yields, maintain land quality, recycle nutrients, conserve water and energy, and control pests and weeds; help farmers share expertise in conserving land, water, and forest resources, making the most efficient use of chemicals and reducing or re-using farm wastes; encourage self-sufficiency in low-input and low-energy technologies, including indigenous practices; support research on equipment that makes optimal use of human labour and animal power; delegate more power and responsibility to those who work the

land; give people more incentive to care for the land by seeing that men and women can get land tenure, access to credit, technology, farm supplies, and training. Researchers need to develop environment-friendly farming techniques and colleges need to bring ecology into agricultural training.

Cost of implementation: no estimate.

SECTION FOUR: MEANS OF IMPLEMENTATION

Chapters 33 through 40 deal with the ways and means of implementing Agenda 21.

33. FINANCING SUSTAINABLE DEVELOPMENT

At UNCED, countries committed to the consensus of a global partnership, holding that the eradication of poverty "is essential to meeting national and global sustainability objectives;" that "the cost of inaction could outweigh the financial costs of implementing Agenda 21;" that "the huge sustainable development programs of Agenda 21 will require the provision to developing countries of substantial new and additional financial resources;" and that "the initial phase will be accelerated by substantial early commitments of concessional funding." Further, the developed countries "reaffirmed their commitments to reach the accepted United Nations target of 0.7% of GNP for concessional

funding... as soon as possible."

Cost of implementation: \$561.5 billion per year total for all programs, including \$141.9 billion in

concessional financing.

34. TECHNOLOGY TRANSFER

Economic assistance would move from the developed to the developing counties principally in the form of technology. Developing countries would be assisted in gaining access to technology and know-how in the public domain and to that protected by intellectual property rights as well, "taking into account developments in the process of negotiating an international code of conduct on the transfer of technology" proceeding under the United Nations Agreement on Tariffs and Trade. To enhance access of developing countries to environmentally sound technology, a collaborative network of

laboratories is to be established.

Cost of implementation: \$500 million

35. SCIENCE FOR SUSTAINABLE DEVELOPMENT

Sustainable development requires expansion of the ongoing international collaborative enterprises in the study of the geochemical cycles of the biosphere and the establishment of strong national scientific enterprises in the developing countries. The sciences link fundamental understanding of the Earth system to development of strategies that build upon its continued healthy functioning. "In the face of threats of irreversible environmental damage, lack of full scientific understanding should not be an excuse for postponing actions which are justified in their own right."

Countries need to develop tools for sustainable development, such as: quality-of-life indicators covering health, education, social welfare, and the state of environment, and the economy; economic incentives that will encourage better resource management; and ways of measuring the environmental soundness of new technologies. They should use information on the links between the state of ecosystems and human health when weighing the costs and benefits of different development policies, and conduct scientific studies to help map our national and regional pathways to sustainable development. When sustainable development plans are being make, the public should be involved in setting long-term goals for society.

Cost of implementation: \$3 billion.

36. EDUCATION, TRAINING, AND PUBLIC AWARENESS

Because sustainable development must ultimately enlist everyone, access to education must be hastened for all children; adult illiteracy must be reduced to half of its 1990 level, and the curriculum must incorporate environmental and developmental learning. Nations should seek to: introduce environment and development concepts, including those related to population growth, into all educational programs, with analyses of the causes of the major issues. They should emphasize training decision-makers; involve schoolchildren in local and regional studies on environmental health, including safe drinking water, sanitation, food, and the environmental and economic impacts of resource use; set up training programs for school and university graduates to help them achieve sustainable livelihoods; encourage all sectors of society to train people in environmental management; provide locally trained and recruited environmental technicians to give local communities services they require, starting with primary environmental care; work with the media, theatre groups, entertainment, and advertising industries to promote a more active public debate on the environment; and bring indigenous peoples' experience and understanding of sustainable development into education and training.

Cost of implementation: \$14.6 billion.

37. CREATING CAPACITY FOR SUSTAINABLE DEVELOPMENT

Developing countries need more technical co-operation and assistance in setting priorities so that they can deal with new long-term challenges, rather than concentrating only on immediate problems. For example, people in government and business need to learn how to evaluate the environmental impact of all development projects, starting from the time the projects are conceived. Assistance in the form of skills, knowledge, and technical know-how can come from the United Nations, national governments, municipalities, nongovernmental organizations, universities, research centres, and business and other private organizations. The United Nations Development Program has been given responsibility for mobilizing international funding and co-ordination programs for capacity building.

Cost of implementation: \$650 million.

38. ORGANIZING FOR SUSTAINABLE DEVELOPMENT

To the existing UN system, the General Assembly as the supreme deliberative and policy-making body, the Economic and Social Council as the appropriate overseer of system-wide coordination reporting to the General Assembly, the Secretary General as chief executive, and the technical agencies seeing to their special functions, Agenda 21 proposes to add a Commission on Sustainable Development to monitor implementation of Agenda 21, reporting to the General Assembly through ECOSOC. The Conference also recommended that the UN Secretary-General appoint a high-level board of environment and development experts to advise on other structural change required in the UN system. The United Nations Environment Program will need to develop and promote natural resource accounting and environmental economics, develop international environmental law, and advise governments on how to integrate environmental considerations into their development policies and programs.

Cost of implementation: no estimate.

39. INTERNATIONAL LAW

The major goals in international law on sustainable development should include: the development of universally negotiated agreements that create effective international standards for environmental protection, taking account of the different situations and abilities of various countries; an international review of the feasibility of establishing general rights and obligations of nations as in the field of sustainable development; and measures to avoid or settle international disputes in the field of sustainable development. These measures can range from notification and talks on issues that might lead to disputes, to the use of the International Court of Justice.

Cost of implementation: no estimate.

40. INFORMATION FOR DECISION -MAKING

Calls on governments to ensure that local communities and resource users get the information and skills needed to manage their environment and resources sustainably, including application of traditional and indigenous knowledge; more information about the status of urban air, fresh water, land resources, desertification, soil degradation, biodiversity, the high seas, and the upper atmosphere; more information about population, urbanization, poverty, health, and rights of access to resources. Information is also needed about the relationships of groups, including women, indigenous peoples, youth, children and the disabled with environment issues. Current national accounting reckons environmental costs as "externalities." Internalization of such costs, the amortization of non-renewable resources, and the development of indicators of sustainability all require not only new data but new thinking.

Cost of implementation: \$2.1 billion.

This overview is based in large measure on an article entitled "The Earth Summit's Agenda for Change" by Michael Keating in the Earth Summit Times, September 1992, published by the Centre for Our Common Future, 52, rue des Paquis, 1201 Geneva, Switzerland.