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Position Paper and Proposals by
UNESCO

Enhancing Global Sustainability

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Enhancing Global Sustainability

Position Paper and proposals by UNESCO

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INTRODUCTION

1. Based on UNESCO's competencies and past action, this document sets out UNESCO's views and suggestions for inclusion in the Johannesburg WSSD agenda and future action by governments and other actors and stakeholders in support of sustainable development.
2. Sustainable development denotes a development which meets the needs of present generations without compromising the ability of future generations to satisfy their needs. The quest for sustainable development therefore transcends sectoral concerns, such as environmental protection, and requires an integrated and holistic approach. In past years, UNESCO has actively contributed to the elaboration and articulation of an integrated vision of sustainable development centred on the human being and based on the respect for human rights and democratic principles, solidarity, dignity, sharing and equity.
3. A holistic orientation is particularly important for
 - the pursuit of the Millennium Development Goals (MDGs) contained in the United Nations Millennium Declaration, including the halving of poverty by 2015,
 - coping with the challenges of globalization and transforming it into a positive force for all peoples and for sustainable development, as well as
 - striving to attain the commitments agreed upon at major international conferences, including a series of world conferences held under UNESCO's auspices, such as the World Conference on Higher Education in Paris, the World Conference on Culture and Development in Stockholm, the World Conference on Science in Budapest and the World Education Forum in Dakar.
4. Therefore, UNESCO, drawing on its multi-sectoral mandate and its interdisciplinary expertise – ranging from education, natural sciences, social and human sciences, culture to communications and information – believes that the following **six strategic themes and action proposals**, set in an overall framework commitment to combat poverty, are indispensable for inclusion in any action-oriented document to emerge from WSSD. For its part, UNESCO has designated the fight against poverty, in particular extreme poverty as one of two over-arching priorities for the next six years. Progress in the fight against **poverty** will be critical for enhancing the prospects of sustainable development, especially in Africa and Least Developed Countries which represent a priority for UNESCO. To be effective and relevant for the lives of the poor, poverty

eradication strategies and activities must fully integrate the contributions of education, the sciences, culture, and information and communication.

Theme I: EDUCATING FOR SUSTAINABILITY

5. Education is not an end in itself. It is a key instrument for bringing about the changes in the knowledge, values, behaviours and lifestyles required to achieve sustainability and stability within and among countries, democracy, human security and peace. Hence it must be a high priority to reorient educational systems and curricula towards these needs. Education at all levels and in all its forms constitutes a vital tool for addressing virtually all global problems relevant for sustainable development, in particular poverty, HIV/AIDS, environmental degradation, knowledge formation and –sharing, rural development and changes in production and consumption patterns. **Education for sustainable development (ESD)** implies providing the learners with the skills, perspectives, values and knowledge to live sustainability in their communities.
6. ESD policies, strategies and actions must build on the six goals adopted at the Dakar World Education Forum in 2000 (see box) and its follow-up process, pertinent decisions by the Commission on Sustainable Development (CSD), and the activities and assessments related to the implementation of chapter 36 of Agenda 21 ***on education, public awareness and training for sustainable development*** for which UNESCO is inter-agency task manager. With respect to the latter, advances have been made towards improved inter-agency, inter-sectoral and interdisciplinary work regarding educational programmes, projects and activities. The want of financial resources has been one of the major impediments to a full implementation of chapter 36 and the mainstreaming of ESD, for which Agenda 21 had indicated a requirement of US\$ 2 billion from international funds.
7. **Theme I - proposed action by WSSD:** Governments and other actors should be enjoined to
 - a) Give top priority to Education for All (EFA) as the essential underpinning for sustainable development, as envisaged in chapter 36 of Agenda 21. Strong support should be given to implementing the 6 goals of the Dakar World Education Forum which dovetail with the two Millennium Development Goals related to basic education and to gender equity therein.
 - b) Develop, with the involvement of all interested United Nations programmes and agencies and led by UNESCO as chapter 36 task manager, a new alliance for ESD involving governments, international organisations, NGOs, professional educators and the private sector and aimed at a fuller implementation of chapter 36, informed by EFA and relevant CSD decisions on ESD;

Education for All - The six EFA goals.

1. Expand and improve comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.
2. Ensure that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete free and compulsory primary education of good quality.
3. Ensure that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes.
4. Achieve a 50 per cent improvement in levels of adult literacy by 2015, especially for women, as well as equitable access to basic and continuing education for all adults.
5. Eliminate gender disparities in primary and secondary education by 2005 and achieve gender equality by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality.
6. Improve every aspect of the quality of education, and ensure their excellence so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

- c) Ensure that education is adequately financed in all countries, with priority being given at the international level to the financing of Education for All as a key instrument for eradicating poverty as stipulated in the Millennium Declaration; create an international financial mechanism or trust fund to promote action in support of ESD;
- d) Continue the conceptual work aimed at a commonly agreed definition of the notion of 'Education for Sustainable Future' in a cooperative manner with all disciplines concerned and various stakeholders;
- e) Reorient formal education systems towards sustainable development, at all levels of education, including higher education and giving due regard to both the content and the outcomes of education.
- f) Give emphasis to a reorientation of teacher education towards sustainable development, in order to empower the world's 60 million teachers to become key agents of change.
- g) Make public awareness and understanding about ESD significant components in regional, national, and local strategies and action plans for sustainable development, with responsibility assigned to all sectors of society.

- h) Promote actions at the local community, district, municipal and regional levels with a view to solving problems related to environment, population and development, urban and rural transformation and to that end, mobilising and empowering people;
- i) Use of new information and communication technologies to broaden the outreach also to the grassroots level. ESD initiatives shall be mapped in an electronic registry available to people in areas of high population density and the nine high-population countries (E-9);
- j) Promote greater public understanding of unsustainable consumption patterns in a perspective which mobilizes individuals and communities to adopt sustainable lifestyles and to do so through both formal and non-formal education; mobilize private sector expertise in marketing and advertising to this end.

8. **Theme I – action by UNESCO:** UNESCO pursues an integrated vision of education, encompassing both formal and non-formal education and alternative delivery systems to reach the unreached. Emphasis is given to an improvement in the quality of basic education (content, adaptation to different local cultural contexts, and to the needs of learners, respect for cultural diversity, creativity, media literacy), as well as on the improvement of educational content and teacher education, especially through the use of ICTs. High priority is also attached to improving science and technology education at all levels and in both formal and informal settings. With respect to higher education, there will be emphasis on the role of universities in refining the concept and messages of education for sustainable development, integrating environmental, demographic, economic, social and a range of other concerns inherent in the notion of sustainability. In re-orienting their research programmes and curricula, key will be the universities' capacity for flexible interdisciplinary cooperation and for collaboration with outside institutions. Exposure of students to real-life learning/practicing situations and multi-professional environments will be ways to bridge the gap between what is taught and what is happening. Universities will have to experiment by exercising more initiative and by risking new approaches. Specifically, in the context of ESD UNESCO will

- Produce a state of the art document reviewing ESD activities over the past ten years, linking ESD to other major components of sustainable development.
- Seek to integrate EFA goals and MDGs into national ESD policies and strategies related to the themes chosen for the Johannesburg Summit.
- Address in ESD policies and strategies problems of poverty and development, environmental degradation and safety, fresh water, renewable energy, ecosystems and biodiversity, ethics, health and malnutrition, unsustainable consumption and production patterns, equity and social justice, population growth, urban and rural transformation, sustainable governance as well as issues related to

cultural diversity. Furthermore, promoting civil democracy, reinforcing the philosophy of lifelong learning, developing responsible, caring and contributing citizens, and investing in human and social capital will be other themes to be integrated into such policies and strategies.

- Promote quality education, including a sustainability component, in both formal and non-formal settings. Besides basic education, all post-primary education shall be geared to equipping young people and adults with skills needed to meet the challenges of sustainable development. A special holistic focus will be given to science and technology education, to technical and vocational education, and to higher education programmes, including the increasingly important role of universities in refining the concept and key messages of ESD. All these programmes must be gender sensitive as well as socially and culturally appropriate.
- Reinforce the role of civil society and induce the formation of international and regional alliances and networks with a broad range of partners in support of ESD programmes.
- Strengthen inter-agency collaboration with other UN programmes and agencies, especially with UNFPA, to help build national capacities, sustain national programmes, and promote self-reliance in the fields of population and development as well as HIV/AIDS.
- Support curriculum reforms and teaching practices through ESD Teaching Learning Materials Modules, Training Kits for Youth, a booklet on the interaction between eco-regions and linguistic and cultural diversity, population maps and children's songs.
- Prepare methodological guidelines, manuals and prototypes resulting from ESD interdisciplinary research and development activities. Quantitative and qualitative ESD indicators will need to be developed to monitor progress.
- Use ICTs and involvement of media to raise public awareness, to create broad-based educational and learning, to promote "*think-tank*" activities and to foster informed ESD-relevant decision-making processes at all levels.

Theme II: PROMOTING AND APPLYING SCIENCE FOR SUSTAINABLE DEVELOPMENT: SCIENCE POLICIES AND CAPACITY-BUILDING

9. Chapter 35 of Agenda 21 focused on the role of science. UNESCO served as inter-agency task manager for this chapter and a range of activities has been carried out since 1991, including the convening of the World Conference of Science, held in Budapest in 1999. The area of science encompasses both natural and social and human sciences – and hence the action and the needs to be addressed in this section are wide-ranging, both in terms of science and science-related policies as well as in capacity-building.

10. It might be appropriate to point out that one aspect often neglected is **tracking and understanding the non-human contribution to**

environmental change. Achieving sustainability requires a recognition of certain common rapid changes in the natural environment, which is dynamic rendering it often unpredictable. Yet, despite these vagaries, the likely trends over the next 50-100 years are fairly clear. It is with these that sustainability must deal, requiring the tracking of changes not only to the biosphere (biodiversity, land use) but also to the abiotic components of the landscape and ecosystems (rocks, soils, water), for example using the geo-indicator approach developed by the International Union of Geological Sciences (IUGS). There is also a need to focus on the integral relationship between the understanding of earth science processes (geo-science) and the Earth surface environments and ecosystems. Since the Earth's land surface environments (soil, vegetation, ecosystems) are a direct result of the interaction of rocks and prevailing climatic conditions over long periods of time, geo-science knowledge must be an essential component for efficient management of non-urban resources (land, soils, vegetation ecosystems).

11. Theme II – proposed action by WSSD:

a) *In general*, Governments and other actors should be enjoined to

- Promote interdisciplinary and intersectoral approaches to sustainable development;
- Foster collaborative scientific efforts and national, regional and international networking, including by electronic means, on all aspects of science policies and capacity-building
- Develop and formulate national and regional science policies;
- Integrate the concept of human security in all policy initiatives and to reflect its various dimensions in the implementation of policies;
- Highlight the role and potential of local knowledge systems and practices and support an increased recourse to solutions emanating from local knowledge;
- Develop dedicated capacity-building programmes, including the creation of requisite institutions, to respond to the exigencies of the multiple parameters of sustainable development;
- Provide technical assistance and support as well as funding for both policy development and capacity-building programmes.

b) With respect to *biodiversity conservation and sustainable development*, Governments and other actors should be enjoined to

- Promote practical measures towards the achievement of the MDG of reversing the current trend in loss of biodiversity resources at global and national levels by 2015 and establish a framework of principles for global stewardship to protect all ecosystems while meeting social and economic needs and aspirations;
- Manage ecosystems for their intrinsic values and for the tangible and intangible benefits that they provide for humans, in a fair and equitable way;
- Adopt an ecosystem approach to the planning and adaptive management of natural resources, and embrace flexible, multifaceted

and democratic visions of biodiversity conservation, sustainable development and the improvement of local livelihoods, tailored to the social, cultural and environmental particularities of each location.

- Use concepts and tools such as biosphere reserves as “living laboratories” for testing and demonstrating integrated approaches to the management of land, water and biodiversity at the regional scale.
- Decentralize management to the lowest appropriate level, and encourage the involvement of the public and private sectors, NGOs, communities and individuals in developing socially just and ecologically sustainable means for the conservation and use of biodiversity through integrative environmental governance.

c) With respect to *abiotic components of ecosystems*, Governments and other actors are enjoined to

- Take systematically into account the contribution of medical geology, which deals with environmental occurrences in soil, water, and air, of excessive abundances, or deficiencies, of particular elements such as arsenic, lead, selenium, radon (natural radioactive gas), iodine, (to name a few) and their impact on health for communities and ecosystems alike;
- Support collaborative efforts of medical and veterinary doctors and geoscientists with a view to identifying factors influencing regional distributions of particular diseases and integrating them into effective environmental health management programs.

d) With respect to *geoscience and geo-ecology*, Governments and other actors are enjoined to

- Foster collaborative scientific investigations including geoscience as a component in the resolution of environmental problems which transgress international borders, taking due account of movements of groundwater, surface water, and the distribution of rock and soil entities;
- Promote co-operation and co-ordination of regional geological science and knowledge to assist in the appropriate management of cross-border environmental issues;
- Make broader use of geoscience principles and knowledge in urban planning to assist in the reduction and mitigation of potential natural hazard impacts in developed urban centres;
- Promote the international exchange of information, knowledge and best practices in urban geoscience and urban management;
- Manage man-made and natural disaster risks with emphasis on pre-disaster preparedness, mitigation, vulnerability assessments, adaptation strategies and other measures to reduce human and economic loss;
- Improve housing infrastructure and urban and peri-urban planning to reduce the vulnerability of the poor to natural disasters;

- Make better use of geoscience knowledge and related disciplines in the management of environments and ecosystems;
- Disseminate information on the relationship between geoscience and ecosystems as well as land management.

e) With respect to *land resources management*, Governments and other actors are enjoined to

- Encourage cost-effective land use planning, land resources management, and development of the rural and regional areas that are consistent with the principles of ecological sustainability, environment protection, and conservation through international exchange of geoscientific information and knowledge and the adoption of best practices in environmental geoscience;
- Improve, adopt and use indicators and data on land degradation and land improvement in order to assess and manage those processes and their impacts;
- Integrate agriculture with other aspects of land management and ecosystem conservation in order to promote both environmental sustainability and agricultural production.

12. Theme II – Action by UNESCO: In line with one of its strategic missions, UNESCO will promote the empowerment and participation in the emerging knowledge society through equitable access, capacity-building and sharing of knowledge in support of sustainability.

a) Housing natural and social and human sciences under one roof, UNESCO will *promote interdisciplinary and intersectoral approaches to sustainable development*. UNESCO will help inform sustainable development policies and practices especially through its five scientific programmes (the International Geological Correlation Programme/IGCP, International Hydrological Programme/IHP, Intergovernmental Oceanographic Commission/IOC, the Man and the Biosphere Programme/MAB and the Programme on the Management of Social Transformations/MOST), which focus on research and policy formulation and work together on various aspects of sustainable development through joint cooperative activities.

b) In natural and earth sciences, UNESCO will be *stimulate and engage the basic sciences in support of sustainable development*, especially through capacity-building, knowledge-sharing and promotion of international and regional cooperation. As the only UN agency dealing with basic sciences on a regular and programmatic basis, UNESCO has a unique role to play in this area, focusing also on on local knowledge systems and best practises. UNESCO will also contribute to the introduction and broader use of sustainable energy, in particular through its contribution to the World Solar Programme with a special focus on the needs of Africa.

c) UNESCO will help strengthen human security, particularly by focusing *on poverty eradication and the needs of the most vulnerable populations*. To that end, it will pursue:

- (i) the development of a scientific base for key components of human and environmental security ;
- (ii) a broadening of the focus of international and national poverty reduction strategies through the full integration of dimensions of education, culture, the sciences and communication ;
- (iii) the establishment of effective linkages between national poverty reduction strategies and sustainable development frameworks ; and
- (iv) the creation of an enabling national policy framework and environment for empowerment and participatory approaches.

d) UNESCO will seek to *strengthen governance for sustainability*, especially by promoting research to broaden the scientific knowledge base for governance and informed policy-making processes addressing all relevant dimensions of sustainable development. The governance dimension will be particularly relevant for the new social co-ordination mechanisms that make multiple policy action possible. Partnerships and civic engagement are crucial in stimulating innovation, as part of decentralisation, devolution, participation and empowerment. Integrative strategies are required across local and central government to create linkages between key policy areas. To that end, UNESCO will promote a better understanding of social transformations through its MOST Programme and of emerging challenges through the network of UNESCO Chairs and other networking modalities, sharing information and knowledge. Another central concern will be fostering the recognition of the central role of culture in development and of the need for development processes to reflect cultural diversity, in line with the UNESCO Universal Declaration of Cultural Diversity.

Theme III: DEVELOPING ETHICAL PRINCIPLES AND GUIDELINES FOR SUSTAINABLE DEVELOPMENT

13. There is a need to build international consensus on newly required norms and principles to respond to emerging ethical challenges and dilemmas as a result of globalization. The trend towards a homogenization of educational, cultural, scientific and communication activities risks to bring about uniformity of content and perspective at the expense of world's creative diversity. The growing commercialization of many spheres considered as public goods, such as education or culture and information, jeopardizes weaker, economically less powerful but equally important segments of the world community. Technological innovations and powerful mechanisms of control demand equally new approaches to the protection of the rights of the individual.

Advances in biotechnology and biogenetics have caught headlines and high-level political attention, but have triggered also preoccupations and fears of uncontrolled developments into uncharted territory. And reflections on ethical aspects and dimensions of sustainable development are too often discounted, yet they are an area which demands increasing attention nationally and internationally.

14. Theme III – proposed action by WSSD: Governments and other actors are enjoined to

- Call for the strengthening of national capacities of Governments and public and private decision- and policy-makers with a view to enhancing the ethical reflection on scientific knowledge and technology in the interest of society, future generations and sustainability;
- Introduce ethical issues and reflection pertaining to scientific knowledge and technology and their impact on sustainability in national and international decision-making processes and fora;
- Promote ethical values permitting a better and broader international co-operation in support of sustainable development, both in science and technology and in the social and cultural spheres;
- Ensure that the advancement and sharing of knowledge are fully consistent with respect for both fundamental human rights, freedoms and responsibilities and requirements of sustainable development;
- Applying ethical guiding principles that could provide selection criteria other than purely economic to make responsible and informed choices, and translating them into operational policies and concrete actions;
- Sensitise the press, the media, the general public and specific target groups (e.g. young scientists and young engineers) to the ethical dimensions and implications of the use of scientific knowledge and technology.

15. Theme III – action by UNESCO: One of UNESCO's main strategic thrusts calls for the promotion of principles, policies and ethical norms to guide scientific and technological development that is sustainable. The ethics of science and technology are one of the Organization's current priorities.

a) Hence, UNESCO will serve as a *global forum for reflection and debate on ethical principles and guidelines for sustainable development* with a view to inspiring policy choices and ensuring compatibility of social, economic and environmental goals at all levels with social equity and social justice. These efforts will draw on the work of the International Bioethics Committee (IBC) as well as on that of the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) where it relates to the ethics of environment. Likewise, as poverty is a denial of basic human rights, UNESCO will address the injustices, exclusions, deprivations and inequalities that poverty engenders with a view to help strengthening social justice and cohesion, economic and social progress, democracy and, ultimately, peace.

b) On specific aspects of ethical considerations, COMEST recently recommended a series of measures and activities, which UNESCO will be asked to disseminate and promote:

- Concerning the ethics of freshwater:
 - o To promote ethical considerations in all aspects of freshwater use so as to reflect the concepts of sustainable development and environmental justice, which are underpinned by equity: equity between geographical entities, between the industrialized

and developing world, between rural and urban populations, between generations and between the managed and the managers;

- To identify and disseminate environmental values that should be a fundamental element in decision-making with regard to water resources;
 - To examine how to induce industry to contribute to water sustainability, e.g. by utilizing renewable flows and avoiding withdrawals that are not replenished; and, to take into account the water needs of local ecosystems in any assessment and action;
 - To induce industry, along with governments, to invest in educating the public to promote habits and "good practices" that foster water sustainability;
 - To promote equity in access to water supply and sanitation services by ensuring public participation in rural water supply; and, to encourage participation of women in water management decisions, which is an ethical imperative for social development.
- Concerning the ethics of energy:
- To induce decision-makers of the public and private sectors to make efforts at all levels by making energy available to all on an equitable basis and at an adequate level, also by absorbing part or all the cost of energy infrastructures;
 - To promote the formulation and application of effective energy policies aiming at reducing energy consumption through reduced waste and improved management of energy; to explore all possible means to take adequate pricing measures to discourage excessive use of energy due to lifestyle preferences.
 - To promote the principle of precaution, by fostering all measures conducive to human security, such as the implementation of safety criteria in the production and distribution of energy.
 - To promote the formulation of energy strategies at national, international and global levels, ensuring a sustainable production, distribution and use of energy that, without damaging the environment, would satisfy our present requirements without impairing the ability of future generations to meet their own foreseeable needs;
 - To explore the ways and means to raise awareness towards environmental risk-free energy sources, against irreversible environmental situations; to foster the rational production and consumption of energy and prevent the occurrence of any events with irreparable consequences;
 - To promote all possible means so as to reduce the emission of greenhouse gases; to foster adequate capacity-building to ensure that appropriate technologies can be used and maintained at local level;

- To promote scientific research geared towards low-risk and minimally-polluting fuels and energies;
- To encourage media pedagogy and education of the public on the ethical issues of energy policies; to promote the dissemination of information, available to and understandable by all, which would avoid bias from inaccurate data, preconceived and unsupported positions;
- To promote, at all levels, education on "good practices" for the use of energy resources; and, to solicit support for national and international energy institutions so as to provide a forum for open discussion and debate on energy issues;
- To encourage the awareness of stakeholders on the necessity of reaching a consensus in the development and establishment of energy policies; to help in identifying regulatory and economic means in order to translate ethical principles into operational policies and concrete actions.

- Concerning the ethics of outer space:

- To explore ways and means: to prevent electromagnetic pollution; to limit outer space debris; to create a global and permanent system for observation and protection of the terrestrial environment; and to put in place a system for management of the planet on a horizon which extends beyond market forecasts;
- To take all appropriate measures to provide researchers with free access to scientific data in order to guarantee sharing of knowledge with a view to promote scientific progress; to place scientific outer space data at the disposal of the developing countries; to foster the definition of procedures to permit sharing of the resulting benefits, bearing in mind the legitimate interests of these countries and acting in the most equitable and balanced manner possible;
- To promote pertinent measures: to protect the confidentiality of information exchanges between individuals with a view to ensure individual protection without infringing in collective freedoms, and to prevent the circulation of subversive messages or illicit activities; to protect individual freedoms and cultural identities;
- To promote the precautionary measures needed to prevent accidents, liable to occur upon return of potentially contaminating materials originating from outer space;
- To study the possibility of organizing specialized courses in universities touching upon technology, law and the ethics of outer space; to ask schools of journalism to pay particular attention to training in the field of outer space science and technology so as to develop appropriate techniques of scientific communication and a "pedagogy of mediation".

Theme IV: SUSTAINING THE WORLD'S FRESHWATER and MARINE RESOURCES AND THEIR SUPPORTING ECOSYSTEMS (Including Small Islands Developing States (SIDS))

16. As regards **freshwater resources**, the United Nations Millennium Declaration called upon all Member States *to stop the unsustainable exploitation of water resources by developing water management strategies at the regional, national and local levels which promote both equitable access and adequate supplies*. While progress has been made over the decade since the Rio Earth Summit, it has been very uneven. Formidable challenges still remain for policy-makers everywhere in all areas of water policies and management. The overall policy goal is to ensure that national and international water resource policies prioritize the attainment of outcomes that reduce and eventually eradicate poverty. Through the sustainable use of water resources, basic needs can be met, vulnerabilities and risks reduced, improved and secure access to water can be created, and poor people can be empowered to control the water upon which they depend. To achieve this goal, water policies need to:

- Build new capacities and an enabling environment that change the **governance** of water resources in ways that are fairer and more sustainable,
- Improve the **management** of water resources to meet the needs of all water users in a more integrated, equitable system that maintains the integrity of the environment.

This can be achieved through a process that considers all aspects of policy, from the initial advocacy of policy change through to the implementation and assessment of impacts on the ground.

17. As regards **marine resources and the world oceans**, their adjacent seas, and the living and non-living resources they contain, they are a necessary element for the survival of life. The sustainability of the air we breathe, the water we drink, the food we eat and the climate in which we live is dependent upon the oceans. The oceans also provide for the cultural, social and economic well being of people. It is the oceans that make life on earth uniquely sustainable within the solar system. Sustainable development is highly dependent on the wise management of the oceans and coasts based on scientific knowledge.

a) No country has the necessary resources to study and monitor the whole ocean and all countries should have the capacity to address at least their own near shore areas. In addition, the UN Convention on the Law of the Sea recognized the concept of the common heritage of mankind and bestowed on coastal States jurisdiction over living and non-living resources of the sea out to 200 nautical miles. The promise of future offshore wealth is tempered by the onerous undertaking to manage and protect these waters. This is particularly difficult for the developing world. Relatively, little is known of the ocean environment. It is complex and inaccessible. It is difficult and expensive to study. It is

complicated by national and international jurisdictions, regional and global agreements and conflicting priorities. It is also an essential part of the planetary environment, on which we all depend, and collectively governments must do more to address their responsibilities in ocean stewardship. Effective global and regional institutions will be required and provide a forum for interaction of science and policy makers. The countries whose economies and social structures depend on the ocean must have the capacities to be able to address local problems.

b) Governments placed the protection and preservation of the oceans and their resources at a high level of priority in Agenda 21 of UNCED. Much has been achieved, yet much remains to be done. As the world's population continues to grow and to concentrate in coastal areas, there will be even greater pressures on coastal and ocean resources. In contrast with the many deteriorating trends affecting oceans and coasts today, there is an alternative vision for the future—one of healthy and productive seas, clean coastal waters, and prosperous coastal communities. Poverty reduction during the coming decade will require more access to sustainable economic livelihoods and wealth derived from the ocean, and development of safer, healthy coastal communities.

18. Theme IV – proposed action by WSSD:

a) With respect to *freshwater resources and their supporting ecosystems*, Governments and other actors should be enjoined to

- Improve the management of water resources so as to meet the needs of all water users in a more integrated, equitable system that maintains the integrity of the environment as well as contributing to human security;
- Build new capacities and an enabling environment that change the governance of water resources in ways that is fair and sustainable;
- Develop coupled management strategies for the physical and biological resources of land and water areas, focusing on ecological, social and economic sustainability at a regional scale;
- Heighten awareness of the multiple values of water, as a public good and as a key to good public policy;
- Improve the management of water-related disasters such as floods and droughts, and integrate the management of water-related hazards in socio-economic development plans;
- Encourage innovative policy frameworks that optimize sustainable benefits, minimizing negative impacts and providing fair compensation if these do occur;
- Undertake and disseminate consolidated assessments of world water resources and the impact on them of human needs and demands, as well as factors caused by global change.

b) With respect to *sustainable management of ocean and coastal resources*, Governments and other actors should be enjoined to

- Encourage improved access to sustainable economic livelihoods and wealth derived from the ocean, and development of safer, healthy coastal communities; establish and implement programmes in integrated coastal and ocean management to guide development opportunities in coastal areas of developing countries;
- To work in the development of new mechanisms to improve co-operation and co-ordination among regional and international bodies concerned with oceans to ensure harmonized and efficient implementation of and compliance with existing international agreements (e.g. UN Straddling Fish Stocks Agreement, the Code of Conduct for Responsible Fishing, and the Compliance Agreement are essential for putting fisheries on a sustainable development path avoiding over-fishing).
- Strengthen the capacities of local and national governments, research institutions, NGOs and the private sector for integrated ocean and coastal use and management, so as to enable them to pursue opportunities for economic development in the coasts and oceans while protecting their ecological integrity and biodiversity.
- Improve the management of river basins, including freshwater flows to the marine environment, as 80 % of marine pollution comes from land-based sources (e.g. through the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities); this is especially important in the context of the coastal mega-cities.
- Intensify the shift from a sectoral to an ecosystem-based approach to the management of coastal and oceanic regions and their biodiversity, including the developments of tools that explicitly recognize the linkages between the management of river basins and marine areas;
- Strengthen science-based global monitoring and assessment of the oceans, by developing on a regular and timely basis assessments of the state and trends of all aspects of marine ecosystems for use by policy makers, as support for managing the long-term sustainability of marine ecosystems; call for the publication of a global report on the *State of Oceans and Development*.
- Address the special problems and issues of Small Island Developing States (SIDS), including their vulnerability to global change phenomena, and strengthen their capacities to manage the vast areas of oceans for which they have stewardship.

19. Theme IV – action by UNESCO: UNESCO will contribute to the objectives of WSSD in conformity with one of its main strategic thrusts, namely promoting the empowerment and participation in the emerging knowledge society through equitable access, capacity-building and sharing of knowledge in support of sustainability.

UNESCO undertakes to accord high priority to its task as *lead agency both for freshwater resources and supporting ecosystems and for oceanography*.

a) As regards freshwater resources and supporting ecosystems, one major focus will be the UN system-wide World Water Assessment Programme.

b) As regards **water policies**, UNESCO will help countries and communities to develop a global framework and enabling environment that take account of all related sectors and policies: agriculture, health and environment and macroeconomic aspects such as privatization and decentralization impacting on water. This may well be a longer-term endeavour. If policy intentions are to be translated into effective action, it will require institutional reform and well-defined capacity-building.

c) Improving **governance conditions** will be one of the most important policy issues and have long-lasting impact on sustainability. The key is to create a framework of decision-making and authority whereby the needs and interests of all water users are represented in a fair and transparent manner. Improving governance should also result in a better integration of the fragmented government institutions responsible for water and help bring about greater participation by local governments, the private sector, civil society and local communities. Four key issues need specific attention if governance conditions are to be improved to provide the basis for a more effective and sustainable policy framework:

- Negotiation and collaboration for sharing water between countries where there are transboundary waters;
- Awareness of the many values of water as the economics of water do not reflect the resource's multiple values beyond its price;
- Managing water-related hazards and disasters;
- Wise decisions depend on good knowledge and a solid and accessible knowledge base.

d) In addition to water policies, UNESCO's other priority focus will be on **water management** issues and action. Most water management will continue to be based on sectoral divisions for some time to come. UNESCO will work towards the elaboration of an Integrated Water Resources Management (IWRM) framework, which will set out comprehensive policies for basic needs extending beyond water supply and sanitation for health to community empowerment and sustainable access to sufficient good-quality water resources; provision of water for food security; reinforced policies to maintain ecosystem integrity and sustainability.

UNESCO will also attend to the competing demands (domestic, agricultural, commercial and industrial) on the use and allocation of water resources in cities. This involves more than the mere provision of water and sanitation for unmet basic needs, it involves also a series of legislative, pricing and investment measures to encourage greater

efficiency, productivity, conservation and quality control of the resource water. Water for industry and energy, including industrial water uses and waste disposal and large-scale hydropower, will be another area for UNESCO action. Policy frameworks will need to be developed that maximize sustainable benefits and minimize negative impacts such as social and environmental costs.

e) As regards **oceanography**, UNESCO will build on the accomplishments and work programme of the Intergovernmental Oceanographic Commission (IOC) and its acknowledged inter-agency key role. IOC is addressing critical scientific uncertainties in relation to the management and sustainable use of the marine and coastal environment. WSSD presents an opportunity to agree upon a limited number of targets as universal benchmarks for an action-oriented programme addressing the main issues and causes of degradation of the marine environment and coastal areas, including the needs of small islands developing states (SIDS). In general, IOC will contribute to addressing the issues listed above as proposed action by WSSD through its manifold activities, initiatives and programmes.

Theme V: ENSURING SUSTAINABLE DEVELOPMENT THROUGH CULTURAL DIVERSITY

20. The recent adoption of the UNESCO Universal Declaration on Cultural Diversity provides a new anchor and entry point for approaching the issue of sustainability from the viewpoint of cultural diversity: cultural diversity is as critical for the world's development as is biodiversity. Cultural diversity presupposes the existence of a process of exchanges, open to renewal and innovation but also committed to tradition, and does not aim at the preservation of a static set of behaviours, values and expressions.

21. Culture in general, and cultural diversity in particular, face three new challenges in relation to sustainable development: (a) globalisation has created new forms of inequality which threaten diversity, pluralism, access, knowledge and creativity and may lead to cultural conflict rather than cultural dialogue; (b) states are increasingly unable to handle on their own cross-border flows of ideas, images and resources which affect cultural development; and (c) growing divides in literacy, knowledge and access (due to digital and conventional developments) have hampered the transmission and renewal of capacities needed for sustainable livelihoods. The world is experiencing the rapid disappearance of local languages, of traditional cultures and their underlying spirituality, of other forms of intangible and oral heritage, and of knowledge traded over generations, which is profoundly relevant for sustainability. Local and traditional knowledge has offered many developing countries a certain degree of subsistence and is often carried by women, given their important role in local economies and in providing social cohesion. cultural and economic exclusion. These growing threats are particularly significant in relation to indigenous people. Indeed, according to a report by TERRALINGUA, there

exists today knowledge about 4635 distinct ethnolinguistic groups in 225 eco-regions, which represent 67% of the global estimate of 6867 ethnolinguistic groups. 36% of the total groups are estimated to live in regions of tropical forests. Indeed this signifies a tremendous source of cultural richness and diversity as well as knowledge for sustainable development and management of the environment, which is incorporated in their – endangered - languages. This underlines the close interrelationship between biodiversity and cultural diversity on the one hand and cultural diversity and sustainable development on the other. An understanding of the linkages between current trends towards cultural impoverishment and economic disempowerment is crucial.

22. Theme V – proposed action by WSSD: Governments and other actors are enjoined to

- Endorse the UNESCO Universal Declaration on Cultural Diversity as a basic document for sustainable development and based thereon to promote a diversity of solutions and approaches in pursuit of sustainable development through the consideration of culture as a full-fledged resource for development;
- Call upon UN organisations, conservation NGOs and private sector entities to work together with a view to building effective linkages between heritage preservation and socio-economic development;
- Encourage the formation of broad-based partnerships, involving public and private actors, for the promotion of endogenous cultural industries capable of being competitive in the international environment;
- Call for the respect for and preservation of systems of traditional and local knowledge as valuable sources for sustainable development action and practises and to assist indigenous people to that effect.

23. Theme V – action by UNESCO: Two of UNESCO's main strategic thrusts call for the promotion of pluralism, through recognition and enhancement of diversity and for the promotion of empowerment and participation in the emerging knowledge society through equitable access, capacity-building and sharing of knowledge in support of sustainability.

a) UNESCO will serve as *promoter for integrating culture and cultural diversity as key dimensions in all activities aimed at sustainable development*. As the UN system's only agency dealing with culture, it will promote sustainable development through formulation of cultural policies aimed at safeguarding and promoting cultural industries, cultural heritage, and an intensification of the dialogue among cultures and civilisations, without which a sustainable renewal of cultural diversity and a sharing of the richness of cultural experiences and practises will not be possible.

b) UNESCO's work to protect and promote the world's natural heritage (based on an implementation of the World Heritage Convention) has been carried out, also through partnerships among States Parties, civil society and private organizations aimed to demonstrate linkages

between heritage protection and sustainable socio-economic development. The UNESCO-UN Foundation (UNF) partnership on World Natural Heritage is an example of such a partnership that has rallied UNDP-GEF, conservation NGOs, tourism sector corporations and private companies, like AVEDA Corporation, to contribute towards building effective linkages between biodiversity conservation and socio-economic development. UNESCO intends to continue forging partnerships in this area.

c) In particular, UNESCO will put in place an action plan to promote knowledge of the Universal Declaration on Cultural Diversity and to induce broad adherence to its stipulations. This will include promoting the role of culture in the sustainable development process and to draw attention to trends affecting culture and cultural expression, such as the impact of new technologies or advances in biotechnologies; the multiple impact of mega-companies in the cultural sphere on publishing, printing, the movie industry, television, the internet, radio and telecommunications. Tourism will have an important role to play in this context, as it can help to promote awareness of and respect for other cultures and at the same time assist the people concerned in developing capacities for their benefit. Cultural tourism will therefore be promoted as a primary tool for development.

d) UNESCO will further support cultural industries, especially in developing countries, with a view to enhancing the role of the widest range of actors – private sector, government and civil society – in deciding how cultural specialists, cultural industries and cultural trade can best serve the purposes of cultural diversity, among others through the Global Alliance for Cultural Diversity.

e) UNESCO will pursue its activities in support of indigenous people and the revitalization of their traditional knowledge concerning the preservation of the environment.

Theme VI: CONTRIBUTING TO SUSTAINABLE DEVELOPMENT THROUGH THE MEDIA AND INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTs)

24. Today, the process of globalization coincides with a fundamental transformation to knowledge-based societies – largely driven by information and communications technologies (ICTs) – where knowledge and information increasingly determine new patterns of growth and wealth creation and open up possibilities for more effective poverty reduction and sustainable development. Indeed, knowledge has become a principal force of social transformation. The leaders of virtually all countries have professed their desire to transform their countries into learning economies and knowledge societies. Knowledge-based and -led development holds the promise that many of the problems confronting human societies could be significantly alleviated if only the requisite information and expertise were systematically

and equitably employed and shared new approaches to ensure freedom of expression, access for all, and the free flow of information and knowledge.

25. In the years to come, a major challenge for the international community will be to ensure the free flow of, and equitable access to, knowledge, information, data and best practices across all sectors and disciplines. For the free flow to be meaningful, access to knowledge alone will not be enough. Other needs must also be addressed, such as building human capacities and technical skills and developing content necessary to translate knowledge and information into assets of empowerment and production.

26. ICTs hold the potential to foster hitherto unknown types of engagement, contacts and interactions among individuals, peoples, communities, nations, cultures and civilizations that can be harnessed to build understanding, solidarity and peace at all levels, to reduce isolation and exclusion so often associated with poverty and to advance sustainable development.

27. Theme VI – proposed action by WSSD: Governments and other actors are enjoined to

- Foster freedom of expression as the *conditio sine qua non* for the self-realization of and participation by citizens in a democratic setting, for promoting diversity, for a realization of the knowledge society, for scientific progress, for sustainable development and for the preservation of peace;
- Take measures to bridge the digital divide, which excludes entire groups and countries from the potential benefits of digital opportunities in networked knowledge societies and their impact for sustainable development.

28. Theme VI – action by UNESCO : UNESCO is called to help tackle all these challenges. In particular, it will focus on the need to reinforce the right to education, to strengthen international scientific and intellectual co-operation, to protect cultural heritage, to promote media development and to broaden public domain access to information and knowledge. These tasks are essential to create knowledge societies based on equity and social justice and geared to fostering empowerment and ultimately sustainable development.

29. With respect to the digital divide between developing and developed countries and within countries, UNESCO will focus on strengthening capacities and skills, creating content, enlarging access, fostering scientific research and sharing knowledge and information through networking, communication and information systems and the media.

30. UNESCO is also called to play a role in helping to bridge the divide between traditional knowledge and scientific knowledge, bringing a science perspective to knowledge at community levels. This will be complemented by community-oriented science education, allowing the introduction of scientific perspectives into the daily lives and production of people.

31. Thus, UNESCO will act as a *knowledge broker for effective sustainable development*. Special emphasis will be given to

- a) strengthening international scientific and intellectual cooperation and networking, leading to a sharing of knowledge, information, expertise and best practices;
- b) producing and disseminating scientific knowledge about modes of governing societies. Increased attention shall be given to the implications for representative democracy and for the independence of science, with external experts “brokering” between scientific findings and the practical context; and
- c) broadening access to information and knowledge, especially through the use of ICTs in community multimedia centres and through the public domain at both national and community levels and to deploy and apply both traditional and new media.

32. Freedom of expression and freedom of the press, represent pillars of every democratic society which, especially in the environment of globalisation, are of prime concern to UNESCO. The new media pose new challenges and require new approaches to ensure freedom of expression, access for all, and the free flow of information and knowledge. In this connexion, UNESCO will further reinforce its programmes aimed at sensitising media to the various dimensions and exigencies of sustainable development, so as to underpin efforts at promoting broad knowledge about sustainable development and practises. Special areas of attention for UNESCO will be the reinforcement of participatory governance and the intercultural dialogue among civilizations.

33. In pursuing its action, UNESCO will build on its long-standing cooperation with many actors of civil society, which have already committed themselves to achieving certain specific goals which are central to sustainable development. Together, these networks form a powerful force of civil society groups which can help advance an agenda focused on key objectives for sustainable development.

The *190 National Commissions for UNESCO* are an integral part of UNESCO. They foster outreach to civil society and to ensure the visibility of UNESCO’s ideals and programmes in the member countries. The *UNESCO Club movement* numbers some 5000 clubs grouped in 83 National Federations and is dedicated to grass roots action. Through close cooperation with world and regional parliamentary organizations, as well as the *32 Leagues of Parliamentary Friends of UNESCO*, the Organization’s programmes and priorities are known to and debated by legislators.

Some 370 NGOs maintaining official relations with UNESCO. Many of these are advocacy groups with established track records in their fields.

With regard to the *private sector*, UNESCO has links to the UN Global Compact and to other entities (e.g. World Bank, OECD, ICC, WBCSD, Prince of Wales Business Leaders Forum, Corporate Social Responsibility Europe, AIESEC, Rotary International, Lions Clubs) working to develop joint projects and action in furthering sustainable development.