

Sustainable development and the Information Society

From Rio to Geneva

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Abstract: Our world is facing very strong challenges and needs: a) Globalisation that divides as well as it unites the world, 2) natural resources and heritage that are to be preserved for the purposes of the whole mankind and for the coming generations, and cannot be reserved to a minority and for the needs of the present time only, 3) equity in access of these resources is to be established among humans. A better world is not only possible, it is absolutely necessary. We must use our technological, scientific, social, administrative capacities to face the needs of billions of people staying behind, to manage in a sustainable way the natural resources. We all know these necessities. But why are our actions so shy, so slow, and so tiny? Sustainability gives us a goal for the introduction and the use of new technologies. Sustainability asks for public awareness, capacity building, education (and not global soap opera), free exchange of information and opinion, monitoring, ethical guidance, social justice in access to information and tools, to define limits of abuse also.

Key words: capacity building, citizenship, Digital Divide, information, sustainability, World Summit

CITIZENSHIP

Citizenship implies a need for and means to access information, but also the ability to deal with information. Information therefore is a very important issue:

- Information means knowledge;
- Information means capacity to understand what happens;
- Information means freedom from false beliefs and gives more self-confidence.

More information technology not automatically provides for more and better information. Information technology can enable ignorant people to come to awareness, can connect isolated people, can enable a society to gather better data and as a result monitor its own development. But none of these important goals will become reality without a serious effort and a strong political will. The technology alone will not achieve this by itself.

Information technology is relatively cheap, not complicated to handle and very flexible. It is therefore much more difficult for censors to combat against Internet publications, than to close down traditionally published newspapers (see the examples in: Iran, Zimbabwe, China, etc.). Information technology helps to build up civil society and citizenship, especially in the Third World.

But if information technology means no limit to communication, how can one stop the invasion of undesirable e-mails, how can one combat racist, pornographic or violent messages and eliminate paedophile web pages without eliminating the free exchange of political opinions and scientific - and other - information through the worldwide net?

Information technology can enable people to become better informed, enable governments and civil society organisations to better monitoring of developments in their country or city. But what is the message passing through the newly opened channels? By watching the global soap-opera-programs broadcasted by most TV channels, people in the Third World might think, that people in the industrialised world are all rich, lazy, own big cars and big swimming-pools, having plenty of beautiful girls around them... It encloses the people all over the world in a virtual reality that will substitute the real world and undermine the will to change it.

WHAT IS THE LESSON?

The lesson to be learned from all this is that a new technology will never be able to give us social, ethical or human progress without a good social,

ethical and human framework. The real issue is not only to deal with the so-called Digital Divide, but to also assure that the information technologies will help to improve our societies and our lives. Thus, such a framework should concern also the field of environmental issues.

The environmental issues of the wide spreading of information technologies are the followings: materials (poisonous for the environment, possibly for men as well, if misused or abandoned without treatment), ability to be repaired, ability of its components to be recycled. The question is: is there a life-cycle approach in the branch? What is the amount of toxic or non toxic waste? What is the increase of the global energy consumption? What is the source of this energy, especially in the Third World?

WORLD SUMMITS

In order to achieve the goals of sustainable development, we need a better information capacity. To have a better information capacity we need to use information technology in a specific direction. This should be the goal of the World Summit on the Information Society (WSIS) now held in Geneva. To this purpose it is of great importance that this Summit creates a bridge with the other UN Summits of the 90's and of the beginning of the Century: Habitat, Social Summit, Food, Women's rights, Development, Millennium, etc. The United Nations should not separate the results of all these Summits, but unite them in a global view. This view is already in existence: it is the view of Sustainable Development, as formulated at the World Summit on Sustainable Development at Johannesburg in 2002.

Sustainable development means to face the real needs of our world. What is going on in the real world today? Globalisation divides us, but also unites us. The most important issues of our time are:

- To guarantee human rights all over the world;
- To promote peace and coexistence between different cultures;
- To implement a sustainable way of development all over the world.

All our technical means should be employed to achieve these goals. This is naturally also true for information technologies.

SUSTAINABILITY

What does sustainability aim at? The most important goals as noted in the Action Plan adopted at Johannesburg on the 4th of September 2002 are:

- Eradication of poverty;

- Changing of our ordinary patterns of production and consumption;
- Managing the natural resource basis of social and economic development.

Sustainability wants to give a simultaneous answer to issues of poverty, in-equal development and misuse of natural resources. The idea was defined in 1987 (Brundtland-Report of the UN, entitled *Our Common Future*), recognised internationally in Rio 1992 (UNCED) by all States, representatives of civil society, business, the UN, and reinforced in Johannesburg 2002.

We like to quote some social goals of the World Summit on Sustainable Development in Johannesburg:

- Halve by 2015 the proportion of people whose income is less than 1\$ a day, who suffer from hunger, who stand without access to safe drinking water, who have no access to basic sanitation.
- Ensure that children - boys and girls - will be able to complete a full course of primary schooling.
- Increase employment opportunities taking into account the fundamental rights at work.
- By 2020 achieve a significant improvement in the lives of slum dwellers.

INITIATIVES

In the environmental field we find the commitment to promote sustainable consumption and production patterns, to support regional and national initiatives to accelerate this purpose, and to de-link economic growth and environmental degradation through improving efficiency in the use of resources and production processes. These measures are achieved through approaches like life-cycle analysis, the polluter pays principle, consumer and producer information, increase in eco-efficiency, support of cleaner production, improving of social and environmental performances of business, encouraging dialogue between enterprises and their stakeholders, using environmental impact assessment procedures.

20% of all inhabitants of the World use 45% of animal proteins, 58% of the energy, 84% of the paper, and 88% of the vehicles.
 USA: 3% of the global population, 25% of the global energy consumption

Figure 1. The resource divide 1

In Johannesburg, following commitments were made about this issue:

- Integrate energy efficiency and accessibility into development programs;
- With a sense of urgency substantially increase the global share of renewable energy;
- Reduce greenhouse gas emissions;
- Implement transport strategies in the sense of sustainability.

850 millions of human beings suffer from hunger

850 millions are an-alphabets.

1 billion have an income less than 1 \$ per day.

1 billion are without an acceptable housing.

1,1 billion are without access to water of drinking quality.

2,4 billions have no access to basic sanitation facilities.

Figure 2. The resource divide 2

A DUTY TO HUMAN DEVELOPMENT

We, the developed world and its technology, have the duty to assure a human development all over the world and the basic conditions of human dignity. We must develop but not in the way we do this now. Indeed, since the 19th and even more in the 20th century we are going in the wrong way:

- The oceans are over-fished and many fish stocks are depleted;
- The climate change has obviously begun;
- The threat over the non-renewable resources is real;
- The loss of biodiversity, and of the tropical forests is going on;
- Desertification is also going on;
- Pollution of atmosphere, water and soil is also a reality.

Within the last 50 years, the fossil energy consumption has been multiplied by 5 and the greenhouse gas emissions have followed the same way. But we notice extreme differences between the regions of our world: 20 to/y/person in the USA, 10 in Germany, 4 in Mexico, 1.5 in Brazil, the quantities are much smaller in Asia and Africa. The acceptable level is 1 to/y/person.

Other environmental commitments of interest taken in Johannesburg were:

- Prevent and minimise waste and maximise reuse;
- Sound management of chemicals though their life cycle;

- Protect freshwaters and introduce a sound management of the seas inclusive sustainable fisheries;
- Facilitate the protection of the ozone layer;
- Promote sustainable agriculture, land use, mining and forestry;
- Achieve by 2010 a significant reverse in the loss of biological diversity.

In many paragraphs of the Plan we find the necessity of information to assure monitoring, and good governance. The Action Plan reassures that nothing is possible without the work field of scientists, the gathering of information and the diffusion of the collected knowledge about the state of sustainability. But we have to underline that the information technologies have to be used to enforce sustainable development and to assure that they are not misused in the other way. They should help in monitoring situations and in return, in mobilising people in the direction of good solutions. This should be the goal of the present Summit.

APPENDIX

WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT ACTION PLAN, QUOTATIONS ABOUT INFORMATION

16 (c) Collect and disseminate information on cost-effective examples in cleaner production, eco-efficiency and environmental management, and promote the exchange of best practices and know-how on environmentally sound technologies between public and private institutions;

20 (m) Promote education to provide information for both men and women about available energy sources and technologies;

23 (f) Encourage development of coherent and integrated information on chemicals, such as through national pollutant release and transfer registers;

25 (b) Facilitate access to public information and participation, including by women, at all levels, in support of policy and decision-making related to water resources management and project implementation;

36 (b) Establish by 2004 a regular process under the United Nations for global reporting and assessment of the state of the marine environment, including socio-economic aspects, both current and foreseeable, building on existing regional assessments;

38 (g) Promote the systematic observation of the Earth's atmosphere, land and oceans by improving monitoring stations, increasing the use of satellites, and appropriate integration of these observations to produce high-quality data that could be disseminated for the use of all countries, in particular developing countries;

47 (b) Encourage ongoing efforts by international financial and trade institutions to ensure that decision-making processes and institutional structures are open and transparent;

52 Assist developing countries and countries with economies in transition in narrowing the digital divide, creating digital opportunities and harnessing the potential of information and communication technologies for development, through technology transfer on mutually agreed terms and the provision of financial and technical support, and in this context support the World Summit on the Information Society.

110 Assist developing countries, through international cooperation, in enhancing their capacity in their efforts to address issues pertaining to environmental protection including in their formulation and implementation of policies for environmental management and protection, including through urgent actions at all levels to:

(a) Improve their use of science and technology for environmental monitoring, assessment models, accurate databases and integrated information systems;

(b) Promote and, where appropriate, improve their use of satellite technologies for quality data collection, verification and updating, and further improvement of aerial and ground-based observations, in support of their efforts to collect quality, accurate, long-term, consistent and reliable data;

112 Use information and communication technologies, where appropriate, as tools to increase the frequency of communication and the sharing of experience and knowledge, and to improve the quality of and access to information and communications technology in all countries, building on the work facilitated by the United Nations Information and Communications Technology Task Force and the efforts of other relevant international and regional forums.

114 Examine issues of global public interest through open, transparent and inclusive workshops to promote a better public understanding of such questions.

121 Integrate sustainable development into education systems at all levels of education in order to promote education as a key agent for change.

124(a) Integrate information and communications technology in school curriculum development to ensure its access by both rural and urban communities, and provide assistance particularly to developing countries, inter alia, for the establishment of an appropriate enabling environment required for such technology;

128 Ensure access, at the national level, to environmental information and judicial and administrative proceedings in environmental matters, as well as public participation in decision-making, so as to further principle 10

of the Rio Declaration on Environment and Development, taking into full account principles 5, 7 and 11 of the Declaration.

129 Strengthen national and regional information and statistical and analytical services relevant to sustainable development policies and programmes, including data disaggregated by sex, age and other factors, and encourage donors to provide financial and technical support to developing countries to enhance their capacity to formulate policies and implement programmes for sustainable development.

132 Promote the development and wider use of earth observation technologies, including satellite remote sensing, global mapping and geographic information systems, to collect quality data on environmental impacts, land use and land-use changes, including through urgent actions at all levels to:

(a) Strengthen cooperation and coordination among global observing systems and research programmes for integrated global observations, taking into account the need for building capacity and sharing of data from ground-based observations, satellite remote sensing and other sources among all countries;

(b) Develop information systems that make the sharing of valuable data possible, including the active exchange of Earth observation data;

(c) Encourage initiatives and partnerships for global mapping.

133 Support countries, particularly developing countries, in their national efforts to:

(a) Collect data that are accurate, long-term, consistent and reliable;

(b) Use satellite and remote-sensing technologies for data collection and further improvement of ground-based observations;

(c) Access, explore and use geographic information by utilizing the technologies of satellite remote sensing, satellite global positioning, mapping and geographic information

164 All countries should also promote public participation, including through measures that provide access to information regarding legislation, regulations, activities, policies and programmes. They should also foster full public participation in sustainable development policy formulation and implementation. Women should be able to participate fully and equally in policy formulation and decision-making.

BIOGRAPHY

René Longet was born in Geneva in 1951. He received the grade of "Licence en lettres" of the University of Geneva. He was engaged in education, politics and publications. Since 2001 he is President of Equiterre,

a Swiss Non-Governmental Organisation with as its purpose the promotion of sustainability in society and politics. He was member of the Swiss Delegation to the World Summit on Sustainable Development held in Johannesburg in 2002. He is also member of many committees and boards, such the steering committee of the Centre for Technology Assessment at the Swiss Science and Technology Council. He is Mayor of the city of Onex nearby Geneva (17.000 inhabitants) and has contributed to many publications within the field of sustainability.