TECHNOLOGICAL PROGRESS AND THE FUTURE OF BIOS

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The progress of humanity was recently defined by the United Nations as the expansion of opportunities for education, health care, employment and income, with the concurrent evolution of choices for a clean, natural environment and with economic and political freedom.

Economic development does not run counter to a high quality of life; this development is one of its constituents. Health care, education and a high standard of environment presuppose economic progress, and the contribution of further economic development. This connection between quality of life and economic progress is verified by the figures on human development from the United Nations. The countries with high per capita income are also those countries with high human development, and an even higher quality of life. Quality of life includes quality of the environment. In the past, quality of the environment and development were opposed to each other, development being achieved at the cost of substantial damage to the environment. Furthermore, natural resources were not evaluated properly, which led to careless consumption.

During the Rio Conference, sustainable development was established as the main principle. Also, Article 2 of the Maastricht Treaty refers to "a harmonious and balanced development of economic activities and viable development which respects the environment is foreseen." This can be rephrased by using one of the principles of Biopolitics International Organisation (B.I.O.): support for economic activities which lead to development and respect for bios.

However, this sustainable development cannot be financed today by creating debts tomorrow, which future generations will be called upon to pay. Present generations must invest in health care and the education of the existing population, in such a way, that no social drawbacks are inherited by future generations. Experiences over the last twenty years have shown that this policy is possible; Germany and Japan have had healthy economic development without increasing their energy consumption, with simultaneous investment in health, education and programmes for the protection of the environment. On the other hand, in developing countries, the close interrelationship, between poverty and the environment is apparent. The poorer a country, the more difficult is the preservation of the environment.

The World Commission on Environment and Development Report states that "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Up to the end of the century and beyond, the environmental perspectives are dominated everywhere by two themes: interdependence and sustainability. In the environmental context, interdependence and sustainability rest on the facts of ecological links. They know no frontiers, they require co-operation, and respond to common action. Interdependence also has a two-sided reality. In many areas, there are opportunities for, and benefits from, improved international co-operation. There are penalties and disadvantages for everyone if such co-operation is not strengthened. Specific issues include the ozone layer, climate change, acid rain, marine pollution, freshwater resources, deforestation, genetic resources, desertification and the handling of chemical and toxic wastes.

These, and other issues, are neither limited nor exclusive; they concern the rich and poor, developed and developing, North and South, East and West. The interests of nations are increasingly interrelated. Not even the most powerful can resolve problems in isolation. It is also being increasingly accepted that economic development must be guided by environmental limits. This is not to assert a limit to growth, but rather to find a path for equitable and sustainable development.

The B.I.O., dedicated to the cause of conservation and the healthy future of humankind, encourages us to support its principles. This is the time for action, concerted action. The three major partners on whose symbiotic and collective endeavours our common future will depend, are: first, political leaders; second, professionals in a wide range of disciplines; and third, the general public. In this respect, the International University for Bio-Environment (I.U.B.E.) with its goal of stimulating revision of the present educational structure through bio-education, could pay a very important role.

The European Union has adopted a new approach to the management of environmental wealth, which contrasts with the traditional approaches to environmental protection. Up to the present, it was the environmental protection policy to remain separate from the normal productive and non-productive activities of a society. The new co-existence of economic development, with the environment, is an approach that is viewed with suspicion, and rightly so in quite a few cases. The greatest possible separation between the two had been the aim. Although previous generations had adopted this dogma, especially at the zenith of the industrialisation of economies, the present situation has resulted in the disappointing failure of almost all their efforts.

Despite the efforts of environmental societies and movements, governmental and non-governmental organisations, scientists and scientific groups, to raise international awareness of the endangered environment, the situation worsens daily. Oceans and air are becoming increasingly polluted; industrial and toxic wastes are becoming more dangerous, and desertification is threatening many forms of life on the planet. In the White Paper of the European Union this situation is reflected: "The present model of development of the European Union leads to a non-harmonious combination of two important elements: labour and nature. This model is dominated by the insufficient exploitation of labour and over-exploitation of natural resources that leads to the lowering of the levels of the quality of life. The European Union should seek ways and processes in order to form a model of sustainable development that favours labour and at the same time is favourable to the environment, especially with respect to the consumption of energy and natural resources."

The Maastricht Treaty places the environmental dimension at the heart of the European Union's policy. It anticipates balanced economic development and viable, non-inflation development that respects the environment. At the same time, the element of the environment is incorporated into all remaining policies. The White Paper, having as a major axis environmental action, establishes it as a long-term strategy for harmonious collaboration among environment, development and labour. In a European Union with unemployment figures approaching twenty million people, the White Paper suggests the gradual transition from taxation of income and profit to taxation of natural resources. Such taxation will allow for more efficient protection and control of certain natural resources and the environment. Environmental protection must be incorporated into every economic activity and every productivity process. The environmental cost is gradually being included in the prices of all goods and in the market economy. This is a necessary approach in an attempt to correct a historical mistake which, while it took into account the cost of certain natural resources such as land and minerals, ignored the cost to the air, seas, water, forests, etc.

As technology develops at the beginning of the 21st century, five areas seem to be of outstanding environmental importance; they are; energy, transportation, industry, tourism and agriculture. All nations should focus efforts on these five areas, in order to minimise the effects of environmental pollution and technology itself could play the most important role in this. Technology should focus in the coming years on the protection of the environment in the following areas:

- the development of products which have the minimum consumption of energy and natural resources
- the development of products which have a longer life-span
- the re-use and recycling of materials such as industrial, toxic and municipal wastes
- the incorporation of new clean technologies in the production line in order to reduce wastes further
- the development and widespread use of renewable energy sources
- priority given to the protection of water and water recycling

At the same time all nations must realise, and incorporate into their policies, the following:

- there is a common responsibility for the protection of the environment among all nations
- environmental problems are not limited to a particular country but often extend over borders
- the improvement of the quality of life presupposes a satisfactory level of environmental protection
- programmes dedicated to global environmental problems must be supported by all

With regard to this, an outline follows including some of the efforts being made for the protection of the environment in Greece. It is true that Greece has not done much to prevent the pollution of the environment; neither has much been done to improve the quality of life nor the educational system. Fortunately, however, there is still time, particularly as a result of increasing advances in environmental technology.

The awareness of the need to protect the environment belongs only to the government, industry or to intellectuals; it is a concern for all of us. In this respect the B.I.O. and the I.U.B.E. have played, and are playing, a crucial role in sensitising the general public by organising national and international conferences, symposia, lectures, publications, etc. Industry and private enterprise have come to realise their responsibility and the need to participate actively in improving the quality of life, in the following ways:

- Industries have invested in the protection of the environment by adopting clean technologies, preservation-of-energy projects, recycling of materials, industrial and toxic waste management projects and the training of their personnel on environmental issues. Approximately 75% of all industrial units invested an average US $250,000 each on projects to protect the environment during 1992.
- Private enterprises spent considerable funds on the education/training of their employees. This, in many cases, was done with financial help from the European Union.
- Approximately 80% of private enterprises now invest in modernisation, in order to improve their competitiveness.
- Considerable sums are being spent by industry, in many cases supported by European Union funds, on research projects dealing with the protection of the environment and the recycling of materials.

We comply with the European Union's policy on the environment and the directives on environmental control. Environmental protection processes such as studies of environmental impact, monitoring of pollutants, ecological labels etc., have also been adopted in an attempt to increase the competitiveness of Greek products in the international market.

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