

# DEMOCRATISATION AND BIO-EDUCATION ACTION FOR A BETTER QUALITY OF LIFE

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To be in the cradle of European culture stimulates reflection, particularly on the transformation of ideas about democracy, into the reality of everyday life. This is especially true with regard to the continuous participation of local communities in decision-making where this concerns the state of the environment for future generations. Let us attempt to follow some models of socio-technical action that were taken in Ancient Greece, on a small scale, and which have since become a pattern followed by the whole world as fundamental elements of contemporary civilisation.

I am convinced that the principle to adopt is that of constantly putting into practice the concept of interdisciplinary research, together with training experts to solve typical problems, as well as looking for ways of achieving more integrated co-operation between professionals and the rest of society. This is related, not only to the rigorous fulfilment of the heuristic model, but also to the exchange of experiences, related to methods of getting different groups of people involved in environmentally-oriented activities. Let me propose that we should discuss the concept of a Network for International Co-operation for Common Action for a Global Life Support System and Sustainable Development, including an exchange of comments from different points of view. The immediate purpose of this concept is the creation of a system which would guarantee that everyone can participate by proposing convincing and reasonable concepts for building and putting into practice a model of environmentally-friendly civilisation which will be beneficial to both present and future generations of all creatures throughout the biosphere. This means, for instance, a systematic approach to developing ways of monitoring and predicting the state of natural resources and the environment on a local and global scale and respond with effective primary prevention of irreversible losses, changes and deterioration. The participation of every inhabitant of the Earth, and all professional groups in this common action, would be a real guarantee of higher efficiency. Such inspiring ideas of professional bio-activity, as those introduced by the B.I.O. President Dr. Vlavianos-Arvanitis, should be followed as a social basis for sustainable development through consensus, based on a biocentric model of civilisation and our life.

Let us focus on some practical implications of this point of view. There is international consensus on the top priorities for sustainable development. The crucial question is: How should we convey these general principles to every politician, local decision-maker and representative from every professional group throughout the world?

It is essential to understand that to meet the most basic needs of each individual, the preservation of health is necessary. This should be achieved, according to WHO, through the active maintenance of the optimal state both of our indoor and outdoor environments regarding the quality of our workplaces, homes, areas for recreation and the constant control of food quality.

We are now in a position to offer adequate tools to monitor personal experience within the total human environment, followed by primary prevention of related health hazards. A feedback mechanism, between general knowledge of the conditions of environmentally-related preventive action and optimisation of decision-making processes, seems to be of special importance under democratic conditions. Let me give a few examples from this part of Europe, whose inhabitants run higher risks from civilisation's diseases, as a result of the ignorance of their decision-makers about the bio-assessment of technologies and management of resources. The process of the democratisation of social life in Poland, and later in other Eastern European countries, has favoured the wider contribution of local communities in reducing, at the source, the rates of the pollutants that are the most dangerous to human health: i.e. carcinogens and teratogens. Looking for a model of co-operation between experts from different disciplines, inhabitants, authorities, managers and NGO's, we could refer to the methodological experiences of over 25 years from universities, national and international schools on sustainable development and primary prevention, in different national parks and areas for recreation, including the oldest of Europe's border parks. In this way, what was a traditionally narrow system of training and education, has been supplemented by interdisciplinary case studies, focused on solving real problems of common interest.

The author, in 1976, at the Lomonosov University in Moscow, performed experiments related to the above model of training, while assisting Russian scholars with a new subject of cross-disciplinary environmental studies. These studies involved Japanese experts in the environmental aetiology of incurable diseases. These experts have a keen interest in a systematic approach to environmental and nutritional prevention of congenital malformations, cancer incidents, etc., including basic research and development studies and education for the active contribution of consumers to the prevention of environmentally-induced diseases.

Distance-education may be very helpful in getting large numbers of people active, as partners in this field. The perspective of international co-operation in this area was recognised as one of the most promising topics during a meeting of the European Distance Education Network, at

our University in 1991. Over the past five years, we have been promoting the understanding of different aspects of the contribution of local individuals to environmental management and the concept of biopolitics, focusing on pan-European integration, at the AGH Open University cycle called Technology and the Human Environment.

Experts from medical, social, technical and other disciplines, introduced up-to-date information about environmental risk factors on a local and international scale and offered practical recommendations and advice to the participants. Our Open University was founded, in association with the International Symposium on New Trends in Environmental Education at the Tertiary Level. The main speaker at this Symposium was the President and founder of B.I.O. Dr. Vlavianos-Arvanitis. At that time, we started a new diploma subject called "Systems of Environmental Management," which focused not only on the integration of interdisciplinary, problem-oriented studies, but also on the common action of experts and local communities for the improvement of environmental quality. Our multi-disciplinary Committee for the Protection of Human Health, of the Polish Academy of Sciences in Krakow, has for several years organised open lectures delivered by well-known foreign and Polish experts, relating to progress in the primary prevention of environmentally related diseases (leukaemia and other cancers in particular) including partnership with producers and consumers. We have also had good experiences in long term co-operation with mass media in this field.

The key problem, regarding common action, seems to be the active contribution of non-experts, namely local inhabitants and authorities as well as businessmen, as one society faced with common problems of crucial importance. However, the progress of the decentralisation of decisions in Eastern Europe favours the more active participation of communities in actions for the improvement of environmental quality on a local and international scale but, at the same time, the contemporary model of a mass-media-dominated culture has resulted in creating passive behavioural patterns. To stimulate the active participation of the whole society in our Common Action for A Better Environment, it is necessary to create a good working international system for permanent co-operation under the equal, democratic partnership of all elements in this system. Let us exchange our concepts and useful experiences for the broad-scale dissemination of knowledge about relationships between local and global scales and action for a better future for all. An adequate level of common knowledge should be supplemented by higher environmental sensitivity, moral maturity and long-term imagination, as well as a sense of common responsibility. The problem of relationships among people and between humanity and other living organisms, or relationships between a diversity of cultures and biodiversity, is also very important from a biocentric point of view. This assessment is reasonable not only from the ethical aspect, but also in relation to the sustainable management of natural resources, and the awareness of Homo sapiens of all other living organisms and their suitable environmental conditions. The criterion for the real adoption of a biocentric approach, versus an egoistic one, may be our solidarity with people worse off than ourselves, like the victims of the over-exploitation of resources and of environmental catastrophes, as well as with those whose ecosystems are at risk of destruction, in different regions of the world.

There are many examples of long distance co-operation. Our multi-disciplinary team also took a small part, in co-operation with Japanese experts, in the primary prevention of some diseases of civilisation. Because of our scientific and practical experiences, it was useful to inhabitants of both countries. Our experiences in environmentally-friendly biotechnologies, that are cost-efficient, have been recognised as useful for assisting sustainable development and nutritional prevention of some diseases in rural areas of India and Latin America. We do not intend to develop "gen-tech" or to contribute to the introduction of new mutants or hybrids. We are trying to stimulate biomass production of local strains of cultivated plants, for example through low-energy laser stimulation of seeds and optimisation of the amount of essential trace elements. Some organisational achievements of the "green revolution" related to training experts and educating local communities seems to be very helpful to the introduction of such biotechnology on a large scale. This kind of large-scale application of new research and development studies would, it is hoped, be useful for preventing climate change, as a result of the stimulation of the growth of energy forests and the reclamation of many polluted areas.

Better communication and co-operation, among teams of experts involved in similar fields of activity for life-supporting systems and social contributions in primary prevention, must be the starting point for putting the idea of a biocentric approach into action. Accessible knowledge, about the relation between the bios concept and sustainable development, seems to be necessary not only for consensus but also for active participation in the elaboration of a model of environmentally-friendly action, for each group in contemporary society. Let us try to integrate a review of the basic tasks of a global environmental policy and the theoretical proposals of biopolitics with past experience and international pilot projects. May I also suggest the application of telematics systems as very promising, for more efficient environmental and resource management, including the transfer of know-how, the creation of new jobs connected with the promotion of low energy and environmentally-friendly technologies, as well as, granting everyone easy access to information about solutions to similar environmental problems. Telematics are useful for establishing pilot projects, for continuous distance training and education on bio-assessment, and in helping managers and local authorities to make informed decisions concerning environmental impact. New tools in relative heuristic processes could be introduced by leading scientific centres offering super-computer simulation using neural networks for solving shared problems. Let us try to combine the use of the telecommunications network and a return to the roots of our civilisation and the etymology of ecology.

I believe that by the development of interdisciplinary "case studies" and through the proper use of modern technology, we could contribute to forging links for the application of the bios theory between optimal management of both our personal lives and our common oikos (house). This will benefit both the present and future generations, as well as create an integrated system for the biosphere. To this end, let me suggest the foundation of Model Centres of Bio-Assessment of Technological and Environmental Management in every region of the world, with emphasis on their regional features, as well as problems they share in common. Such centres could be basic elements of the International

Network, within the International University for the Bio-Environment (I.U.B.E.), and integrate our actions for saving the natural environment and life on earth. Let us call these centres, based in highly reputable university cities, Bio- Sozopolis, from sozology the - science of systems - an interdisciplinary approach to the management of natural resources, and the rescue of the biosphere, based on the Greek sozo (I save).

Following our long tradition, the great interest of many scholars, students and the whole society of Krakow, which like Athens is recognised by UNESCO as part of the World Cultural Heritage, let us start such an activity, scientifically proven but open for all, with the first cycles of the International Research and Training Centre of Bio-Culture. This centre will develop our international co-operation in this field, initiated in 1972, with a particular focus on sustainable development and primary prevention. Such a centre may be a part of I.U.B.E. Permanent co-operation in this field was recommended by the experts contributing to the first meeting (International Seminar) on environment and health in cities in Central and Eastern Europe, held in Poland in 1992 and the International Conference on the Training of Experts for Environmental Protection and Sustainable Development in Europe, organised at our University in December 1993. We appreciate very much Dr. Vlavianos-Arvanitis' report, as an especially important part of the proceedings of this conference.

We intend to contribute to the dissemination of bios ideas by developing our International Schools on Primary Prevention and Sustainable Development in Krakow, and border parks during summer vacation. The main principle of our activity is problem-oriented training and education, related to model interdisciplinary case-studies, including nutritional prevention of health problems, echo-tourism, the reclamation and restructuring of industrial regions, waste management, application of biotechnology, reduction of waste products from transport, etc. We have had good long-term experiences with the integration of pilot NGO's and projects in environmental learning with the modernisation of formal education in this field.

At present, we are focusing our attention on relations between environment and culture. I am convinced that this relationship, as well as knowledge about the environmental basis of health and the principles of systems of primary prevention, are most important for the strong motivation and support of proposed permanent activity by decision-makers and international societies, local communities, etc. Let me refer also to some remarks presented by Dr. Panourgia- Clones, George Strongylis, Professor Ashford and other experts that support the idea of the development of environmentally-oriented common action on an international scale. Let me propose the inclusion in the programme of activity of the pilot BIOS Centre, the fulfilment of common expectations such as:

- the creation of the conditions necessary for healthy life
- adequate rest
- proper accommodation (including indoor environment and habitat)
- training and the creation of new jobs with regard to sustainable development
- wide-scale application of low-energy resources, environmentally friendly technologies
- better education of youth to face the new challenges of contemporary civilisation (fitness in a physical, psychological and social sense)

The other kind of motivation is linked to professional satisfaction, such as sustainable business (i.e. the great international success of Green Fashion), and social acceptance by politicians, journalists, teachers, etc. Some kind of competition, such as the International Chopin Competition, related to model bio-houses, bio-habitat, bio-cities and bio-technology, seems to be useful for stimulating creative activity for the benefit of all.

Let us use good traditions as the motivation for rational human life, coming back to the root of our European culture in the ancient Greek ideal of kalokagathia: the ideal bringing together Truth, Goodness and Beauty. Let us consider the forthcoming jubilee of the contemporary Olympic Games in 1996, as a good occasion for the organisation, in Greece, of the World Congress on Bio-Culture, Biopolitics and Common Action for a Better Future for All.

Let us also consider, a cross-cultural approach to efficient adaptation based on the common environmentally-friendly elements of different cultures and traditions all over the world. It is necessary to look for new models of pro-environmental civilisation in accordance with general cultural and human environmental principles. This understanding would be expressed by the sense of our common responsibility for the quality of our indivisible natural environment, and common action for a better environment, better health and quality of life on a global scale. A biocentric model of civilisation seems to be much better than an anthropocentric one. This model must regard the integration of the protection of the biosphere and include a new economic order, featuring the improvement of life conditions through the promotion of environmentally and health-friendly technologies and international systems of resource management.

It is necessary to radically change the paradigms of human being versus nature, the individual versus other persons, one nation versus another nation, into an awareness that the things we have in common are more important than those which divide us. Better integration is the only chance we have for the survival of humanity. We need a heuristic method to seek more and more effective ways of proper environmentally-oriented behaviour for each group, as well as, for progress in the integration of these activities on local, regional and global scales, as passengers aboard the only manned spacecraft, Earth. This demands the verification of methods and the effects of their applications. It also involves forecasts and preventive measures based on the partnership between local communities, experts and an international network for the promotion of bio- culture.

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