

PROCEEDINGS

BIOPOLITICS - THE BIO-ENVIRONMENT - VOLUME I

Proceedings from the First B.I.O. International Conference

Athens, May 1987

Philosophy

Greece: Dimensions of Biopolitics, Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation

UK: Philosophical Problems of Biopolitics, Professor *Rom Harre*, University of Oxford; Ways of Thinking About the Bio-Environment, Professor *Andrew A. Brennan*, University of Stirling; Biopolitics and the Philosophy of Evolution, Dr. *Thomas S. Kemp*, Zoological University Museum, Oxford

Yugoslavia: Philosophical Aspects of the Bio-Environment, Professor *Adreja Miletic*, Faculty of Political Sciences, Belgrade University

Sri Lanka: Man as an Evolutionary Phenomenon, *Henry D.A.H.P. Karunaratne*, Chairman, Executive Committee, UNA

Management Models

Canada: Explorers of Transition - Organisations, *Dolores Schell*, Consultant, Department of External Affairs, Ottawa

Greece: Public Policy Engineering - Operations Research in Decision Making, Dr. *Achilles C. Kanellopoulos*, Dean and Director of Studies, Southeastern College

Social Implications

Greece: The Tragedy of the Commons, Professor *Michael Dearing*, Deree College

Finland: The Creative Impact of Feminism on Biopolitics, *Hilkka Pietila*, Secretary General UNA Finland, Vice-President, WFUNA

USA: Biopolitics and Youth, *James Muldoon Jr.*, Assistant Field Director, UNA

International Co-operation

UK: The Bio-Environment - Policy Recommendations, The Right Honourable *Lord Ennals*, Member, House of Lords, former Cabinet Minister

Singapore: Strategies for the Protection, Maintenance and Enhancement of Bios, Professor *Tham Seong Chee*, University of Singapore, President, UNA

Cyprus: The Bio-Environment - An Issue for Development and Foreign Policy, *Androulla Vassiliou*, Barrister-at-Law, Vice Chairman, Executive Committee, WFUNA

Austria: The Role of the United Nations in Preserving the Bio-Environment, *Peter H. Feeg*, Director, WFUNA, Vienna

Sri Lanka: Preservation of the Bio-Environment, *Kumaran Fernando*, Secretary, General, UNA

The Philippines: The Bio-Environment: - Protection and Improvement of Life, Dr. *Liduvina R. Senora*, Executive Secretary, UNA

Nigeria: Bio-Environment - African Dimensions, *Tina Uwechue*, Vice-President, UNA

Politics, Education and Economics

Portugal: Biopolitics - Regional and Interregional Perspectives, *Professor Antonio Manuel de Sousa Otto*, Director, Ministry of Industry and Commerce, Algarves

Greece: Biopolitical Science, Professor *Emmanuel E. Marcoglou*, Deree College

GDR: The Bio-Environment and Education, Professor *Erich Taubert*, Weimar University

Hungary: The Bio-Environment - Economic Dimensions, Professor *Gyula Bora*, Vice-Rector, Karl Marx University

FRG: Ecology and Economic Policy, Professor *Udo E. Simonis*, Director, International Institute for Environment and Society, Science Centre Berlin

Legal Implications

C.S.S.R.: Preservation and International Law, Professor *Juraj Cuth*, President of the Slovak Peace Council

Turkey: Urban Planning and Bio-Environmental Policy, Professor *Rusen Keles*, Director, Center for Urban Studies, Faculty of Political Sciences, Ankara University

Israel: Biopolitics Legal Dimensions, *Haim Klugman*, Director General, Ministry of Justice

FRG: International Environmental Problems and the Role of Legislators, *Professor Udo Simonis*, International Institute for Environment and Society, Science Center Berlin

Technological Dimensions***Pollution***

USA: Global Warming and Sea Level Rise, Professor *Giulio Pontecorvo*, Columbia University

FRG: Lake Restoration in Berlin, Professor *Gunther Klein*, Institute for Water, Soil and Air Hygiene, Federal Health Office, Berlin; Chemical and Engineering Aspects of Phosphate Elimination, Professor *Andreas Grohmann*, Institute for Water, Soil and Air Hygiene, Federal Health Office, Berlin

Greece: Transfer Factors of Heavy Metals in Aquatic Organisms of Different Trophic Levels, *Konstantina Akrida*, Food Chemistry Laboratory, University of Ioannina; Dr. *Vassiliki Kalfakakou*, Faculty of Medicine, University of Ioannina; Bio-Environmental Protection, Materials Recovery and Cost Saving: The Case of Flotation, Dr. *Anastasios I. Zoumboulis*, Department of Chemistry, Aristotelian University, Thessaloniki and Professor *Francis A. Batzias*, Piraeus Graduate School of Industrial Studies

Health

Greece.: Bio-Engineering - Medical Dimensions, Professor *George M. Maniatis*, University of Patras Medical School; Nutrition - Single Cell Protein Twenty Years Later, Professor *Cleanthis J. Israelidis*, Food Technology Institute, Southeastern College

FRG: Long-Term Air Pollution Effects and Health, Professor *Horst Malberg*, Free University, Berlin; Influences of Air Pollution and Weather on Croup Syndrome and Obstructive Respiratory Tract Disease of Children in Berlin, Dr. Med. *Ulrich Fegeler*, Meteorology Institute, University of Berlin

New Perspectives

France: Biotechnology, Man and the Bio-Environment, Dr. *Guy Sergheraert*, Centre de Valorisation des Glucides

Greece: Comments on Biotechnology Professor *Constantinos Sekeris*, University of Athens, Director of Biology Research, National Research Center; Biotechnology and the Environment, Professor *Michael Scoullas*, President, European Environmental Bureau

Switzerland: Telecommunications Science and its Relation to Bios, Dr. *Peter Stavroulakis*, Manager, NYNEX International, Geneva

USA: Biotechnology and Fisheries Oceanography Dr. *Philip Lobel*, Research Scientist, Woods Hole Oceanographic Institute and Associate in Oceanography, Center for Earth and Planetary Physics, Harvard University

UK: Technology and Change in the Bio-Environment: Some Contributions to the Process Theory, Dr. *David Watts*, University of Hull

RESOLUTIONS

At the end of the First B.I.O. International Conference, held in Athens in May 1987, all B.I.O. goals were unanimously acknowledged by the conference participants, and the following recommendations were made:

- promote and initiate awareness of and a deep sense of responsibility by all peoples for the dangers arising from actual or possible direct interventions of man into his own and all other forms of bio-psychological substance by means of genetic and other bio-medical processes
- promote and initiate regional cooperation for the development of the bio-environment and its protection against technically avoidable pollution among all relevant organisations and groups, including recording and publicising channels of information feedback
- promote and initiate efforts aimed at minimising resource depletion as well as exploiting the use of recycled materials of all forms for the protection of the bio-environment
- promote and initiate the widespread collection and flow of information and data relevant to the protection and development of the bio-environment, in both specialist institutions and public media
- promote and initiate the incorporation of environmental education programs in national educational systems; and finally proposes for consideration
- the need for a Universal Declaration in light of previous United Nations and UNEP declarations on the environment comparable to the Declaration of Human Rights or other internationally agreed conventions
- work out rules and laws to facilitate the imposition of legal and moral sanctions on states and organisations failing to protect the environment
- submit the issue of the bio-environment and its protection for debate and deliberation in the forthcoming 31st Plenary Session of the World Federation of United Nations Associations (WFUNA) to be held in Ottawa in August 1987, and its regional conferences in 1988
- create national groups to be affiliated to the Biopolitics International Organisation

BIOPOLITICS - THE BIO-ENVIRONMENT - VOLUME II

Proceedings from the Second B.I.O. international Conference

Athens, October, 1988

Theology, Ethics and Philosophy

Greece: Biopolitics - the Bios Theory Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation; Views on Biopolitics Professor *Constantinos Bonis*, Former President, Academy of Athens; Church - Theology - Bio-Environment Professor *Athanasios Angelopoulos*, School of Theology, Aristotle University of Thessaloniki; Man's Historical Presence in the World Professor *Evangelos A. Moutsopoulos*, Faculty of Philosophy, University of Athens, Member, Academy of Athens; Mythos - an Aspect of Bios *Lala Nicoli*, General Secretary, Greek Soroptimist Union

Belgium: Genetic Engineering - Ethical Dimensions Professor *Charles Susanne*, Director, Centre of Bioethics, Free University of Brussels

USA: The Ethics of Secrecy, Professor *Richard Eells*, Columbia University; The Need for Biopolitics *F.T. Liu*, Former Assistant Secretary General, United Nations Bios and Literature; The Role of Literature in the March Toward Biopolitical Sanity Professor *David R. Weinberg*, Michigan State University

UK: Ecological Humanism Prof. *Andrew A. Brennan*, University of Stirling

Yugoslavia: Bios and Technology Philosophical Controversies Professor *Andreja Miletic*, Faculty of Political Sciences, Belgrade University

Bios and Youth

USA: The Future of Bios and Youth *James Muldoon, Jr.*, Assistant Field Director, UNA and *Jordan A. Horvath*, New York State Bar

France: Bio-Ethics and Youth, Dr. *Guy Sergheraert*, Center for the Exploitation of Glucides; Bios and Youth Responsibility, *Philippe de Braeckelaer*, Centre de Valorisation Agro-Industriel

Singapore: The Role of Youth, *Bert Koh*, Board of Directors, UNA Singapore and *Paul Ng*, Board of Directors, UNA Singapore

UK: Global Cooperation - a New Vision for Youth, *Nikki Malet de Carteret*, Consul-tant, Global Cooperation for a Better World

Poland: International Youth Movement and Bios, *P. Graniewski*, Secretary General, UNA

Greece: Development vs Environmental Order, *Hercules Roupas*, Financial Consultant

Bios and the Role of Women

Belgium: Women and Biopolitics, Dr. *Huberte Hanquet*, Senator, President of the Council of Belgian Women

Finland: Women and Bios, *Hilkka Pietila*, Secretary General UNA, Vice-President, WFUNA

Technology and Health

USA: In Praise of Technology's Humanity, Professor *Elias P. Gyftopoulos*, Ford Professor of Nuclear Engineering, Massachusetts Institute of Technology

Greece: The Progress of Biological Sciences and the Future of Bios, *Professor George*

M. Maniatis, Biology Department, University of Patras

France: Biotechnology in the Service of Agriculture, *George Martin*, Ingenieur I.A.N.

The Philippines: The Future of Science and Technology in Asia Dr. *Frederick So Pada*, President, Technological University of The Philippines; Relevance and Responsiveness of Technology Transfer Dr. *Gloria C. Gatchalian*, Director, Special Science High School, *Eulogio Rodriguez* Institute of Science and Technology

Switzerland: Bios and the Use of Telecommunications Dr. *Peter Stavroulakis*, Nynex International Company

GDR: Health for All by the Year 2000, Professor *Erich Taubert*, University of Weimar

Law, Education, Media

UK: The Management of the Air, The Right Honourable *Lord Ennals*, House of Lords, Former Cabinet Minister

Israel: The Bio-Assessment of Law, Technology and Art, *Mayer Gabay*, Civil Service Commissioner, f. Director General, Ministry of Justice

Poland: Bio-Security - Legal Dimensions, Dr. *Josef A. Haber*, Technical University Gliwice, Vice-President, UNA

The Philippines: The Teacher as Agent of Change in Biopolitics, Dr. *Gloria C. Gatchalian*, *Eulogio Rodriguez* Institute of Science and Technology

Sri Lanka: Outline of a Biopolitics Curriculum, *Henry Karunaratne*, Chairman, UNA Executive Committee

Greece: The Future of International Education, Dr. *Achilles C. Kanellopoulos*, Dean and Director of Studies, South-eastern College; Bio-Communications, *Haris Livas*, Director of International Relations, Ministry of the National Economy

Urban Planning and Architecture

Greece: Landscape Values and Bio-Aesthetics, Professor *Costas A. Cassios*, National Technical University; Bio-Environment, Urban Planning and Architecture; Environment and the Role of Ekistics, Professor *John G. Papaioannou*, Advisor, Ekistics Centre

Turkey: Bios and Urban Planning - Dimensions for the Future, Professor *Rusen Keles*, Director, Centre for Urban Studies, Faculty of Political Sciences, Ankara University, President UNA; The Golden Horn Project, Professor *Ahmet Samsunlu*, Istanbul Technical University

Poland: Bios and Modern Cities, *Pawel Graniewski*, Secretary General, UNA; Bio-Environmental Evaluation, *Edward Kamienski*, Director, Center for Building Biology and Environmental Energy Action, BIOSKALA

Cyprus: Tradition: a Contribution to Civilization, *Alexis Theodossiadis*, Architect/Planner

Bio-Environment and International Co-operation

Belgium: Biocycle - Man - Environment, Dr. *Stefan Klein*, President, International Society for Research on Civilization Diseases and on Environment

The Philippines: Perspectives for the Improvement of Bios in Asia, Dr. *Liduvina R. Senora*, Executive Secretary, UNA

GDR: Bios and International Cooperation *Felicitas Richter*, Secretary General, UNA

Sri Lanka: The Future of Bios - Asian Dimension, *Kumaran Fernando*, Secretary General, UNA

Poland: Man and Environment, Dr. *Jan W. Dobrowolski*, Science Secretary, Committee for the Protection of Public Health, Polish Academy of Sciences

Cyprus: Rehabilitation of Habitats and Management of Resources, *Andreas Demetropoulos*, National Coordinator, Marine Pollution Monitoring Programme

Greece: The Role of the Environment, Dr. *Aldo Manos*, Coordinator, United Nations Environment Programme, Unit for the Mediterranean Action Plan

USA: Destruction of the Amazon and the Preservation of Bios, Professor *John Carroll*, Forest Resources, University of New Hampshire

UK: The Role of Animals in Forest Regeneration and the Economics of Rain Forest Conservation in Southeast Asia Dr. *David J. Chivers*, Cambridge University

Senegal: The Protection of Nature, *Moctar Kebe*, Minister for the Protection of Nature

FRG: Internalizing External Costs, An Ecological Tax Reform, Professor *Ernst U. von Weizsaecker*, Director, Institute for European Environmental Policy; Environment Protection Expenditures - the German Example, Professor *Udo E. Simonis*, Director, International Institute for Environment and Society, Science Center of Berlin Dr. *Christian Leipert*, Science Center of Berlin; Industrial Restructuring for Sustainable Development: Three Strategic Elements, Professor *Udo E. Simonis*, Director, International Institute for Environment and Society, Science Center Berlin

Hungary: Economic Factors and the Environment, Professor *Gyula Bora*, Vice-Rector, Karl Marx Economic University

The Netherlands: Good Environmental Practices Good Business Practices, Professor *Donald Huisingh*, Environmental Consultant

Ghana: Bios in Africa Mr. *Bennard K. Kuma*, Honorary President, WFUNA; The Future of Bios in Africa, *Mike Awua-Asamoah*, Secretary General, UNA

Nigeria: The Future of Bios - African Dimension, *Tina Uwechue*, Barrister-at-Law, Vice-President, UNA

Bio-Diplomacy and Culture

USA: Policy Issues Related to the Transfer of Technology to Developing Countries, Professor *Nicholas A. Ashford*, Department of Technology and Policy, M.I.T.

UK: Cultural Attitude Assessment: A Lost Dimension in the Technology Environment Equation, Dr. *David Watts*, University of Hull; Cultural Diplomacy - the Future Dr. *Robert T. Taylor*, Representative, British Council

Singapore: Bios and Culture in Asia Professor *Tham Seong Chee*, National University of Singapore, President, UNA

RESOLUTIONS

The conference participants, in addition to fully supporting all B.I.O. goals, resolved to:

- design, construct and implement an all-embracing educational strategy both to create consciousness regarding bios, as well as to provide feasible follow-up action plans for the achievement of B.I.O. objectives

- design, construct and implement a comprehensive syllabus on bios and all its ramifications for schools, colleges and universities
- mobilise media resources and use satellites to inform, educate and sensitise the public on bios and its future
- mobilise the expertise and energies of scholars, professionals and creative artists to give purpose and direction in the promotion of bios
- encourage educational institutions to initiate programs of teaching and research relating to bios
- promote cultural development and exchange to enhance both human understanding and the promotion of bios
- develop and disseminate a bibliography on writings pertaining to bios, including literary writings in the form of novels, short stories, poetry and philosophical tracts.

Efforts to promote bios through education should remove ignorance and fear, give hope and add new moral-ethical boundaries capable of sustaining and promoting bios in the next millennium.

BIOPOLITICS - CURRICULUM REVISION

Third B.I.O. International Conference, Athens, June 1989

Greece: Dr. Agni Vlavianos-Arvanitis, President and Founder, Biopolitics International Organisation

Singapore: Professor *Tham Seong Chee*, National University of Singapore, UNA President

Turkey: Professor *Rusen Keles*, Director, Center for Urban Studies, Faculty of Political Sciences, Ankara University, President, United Nations Association

USA: Professor *Nicholas A. Ashford*, Policy Center for Technology, Massachusetts Institute of Technology

Greece: Professor *Constantinos Bonis*, former President, Academy of Athens

Greece: Professor *Costas A. Cassios*, Technical University of Athens

UK: Dr. *Terence Duffy*, University of Ulster

USA: *John Malcolm Forbes*, Founder, Teachers' Center for Global Education, and Chairman, Center for American Studies at Concord

Israel: *Mayer Gabay*, Civil Service Commissioner, and Former Director, General, Ministry of Justice

Israel: H.E. Ambassador of Israel Mr. *Moshe Gilboa*

UK: Professor *Rom Harre*, Department of Philosophy, Oxford University

Turkey: The Very Rev. *Meliton Karas*, Holy Synod Secretary, Ecumenical Patriarchate

Greece: Professor George Maniatis, School of Biology, University of Patras

Greece: Dr. *Aldo Manos*, Coordinator, United Nations Environmental Program, Plan of Action for the Mediterranean

Greece: Professor *John G. Papaioannou*, Athens Center of Ekistics

USA: Professor *Giulio Pontecorvo*, Director, Center for Business and Government

Studies, Columbia University

Greece: Dr. *Panayis Psomopoulos*, President, Athens Center of Ekistics

UK: Dr. *Robert T. Taylor*, Representative, British Council

Greece: Professor *Constantinos Voudouris*, Department of Philosophy, University of Athens

RESOLUTIONS PROPOSALS FOR A BIOCENTRIC CURRICULUM

Decision-makers met for the Third B.I.O. International Conference on *Biopolitics - Curriculum Revision* in order to initiate a worldwide bio-syllabus. It was acknowledged that there is an urgent need to incorporate the values of appreciation and a better understanding of bios (life) at all levels of education and that efforts would be to incorporate the progress of the biological sciences in fields such as theology, philosophy, diplomacy, economics, law, media, since technology may be viewed as a pathway leading to a better future. While setting the long-range philosophy of bio-education, immediate changes need to be incorporated in primary, secondary and university education. Public opinion is changing from day to day and the demands for the preservation and appreciation of bios are of utmost importance.

The fruitful outcome of this important meeting was the proposal for a bio-syllabus. Statement of Justification Maintaining and promoting bios (life) has, in general, become the most complex and urgent task facing humanity. Progress in technology has given hope for a more abundant and satisfying future. The horizons of human thought and understanding seem unlimited. Yet, at the same time, technology is also seen as life-threatening, challenging humanity's cherished beliefs, creating in its wake immense moral dilemmas as well as legal concerns. To ensure that bios remains at the center of human concern, it is imperative that technology be guided by appropriate values.

An important recommendation adopted at the First B.I.O. International Conference held in May 1987 was the preparation and promotion of bios-oriented educational programmes in national educational systems. This recommendation was subsequently reaffirmed at the Second B.I.O. International Conference in October 1988 where it was proposed that a bios curriculum for pre-school, secondary and tertiary educational institutions be formulated. The Third B.I.O. International Conference held in June 1989 addressed itself to this task.

The Bio-Syllabus

The bio-syllabus proposed by the Third B.I.O. International Conference stresses the need for a unified understanding of life and its multifaceted manifestations and processes. More than just the concern for the protection of the environment, it envisages not only the identification, promotion and institutionalisation of values and attitudes that are necessary for the maintenance of bios but also the protection of vital ecosystems by the intelligent application of technological know-how for the enrichment of life. Bios, on the one hand, and biotechnological development, on the other, constitute two interacting components whose relationship with each other must be guided by appropriate values and principles to achieve desirable outcomes. A bio-syllabus is both cognitive, emphasising knowledge about bios, and evaluational emphasising right values or attitudes towards bio-assessment.

Elementary Level

Appreciation of bios can assume many forms - in the manner bios is presented as a manifestation or in the incorporation of bios topics in teaching subjects such as history, literature, geography, social studies, civics, music and elementary science. In doing so, pupils should be provided with sound basic simplified knowledge of bios and at the same time, learn to relate to bios with sensitivity, understanding and intelligence.

Methods and Procedures

To realise the broad aims presented, considerations should be given to assisting students to acquire an appreciation of nature, its rhythms and processes. This could be achieved by cultivating their powers of observation through sharpening their senses to sight, sound, smell, feeling and touch. Two sets of procedures could be followed: the purely didactic involving telling/explaining, shocking, informing and subject focus teaching and the less didactic involving individual research, information-handling, values clarification, motivating and decision-making skills. In addition to pure teaching, students could be encouraged to develop practical applications protecting the bio-environment. Teachers should encourage students to raise moral, ethical, religious, political, economic and other questions to assist them in arriving at appropriate value decisions.

Secondary Level

At this level, the study of bios can be more focused either in terms of themes or subjects. The presentation of bios topics can be done through the relevant subjects taught at the secondary schools. Though teaching at this level tends to be disciplined or subject-oriented, e.g. language, literature, history, biology, physics, chemistry, mathematics, etc., the need to deal with bios and bio-related topics as a unified area of knowledge and values should be recognised. However, it is important that students gradually come to realise that ecosystems are governed by common laws whether physical, biological or chemical and in the case of human beings, by values and norms.

Aims

The overall aim at this level should be to develop the students ability both to observe and inquire about bios thus deepening their understanding of the relationship between human beings and the bio-environment. In addition, students can be helped to seek problems pertaining to bios and in the process learn to imbibe the process of inquiry and the scientific ethos. At the more advanced level (grades 10-12 or upper secondary), the aims of the bio-syllabus should include inter alia:

- teaching students how to discover regularities or underlying principles in the bio-environment
- assisting students in identifying and analysing causes pertaining to bios and natural phenomena so as to develop unified ways of viewing and thinking
- helping students to understand the harmony despite diversity and variety in bios
- teaching students that all natural phenomena have a history governed largely by their habitat thereby heightening interest in the preservation of biotic forms

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- helping students to understand that human life is maintained by dynamic balance in the bio-environment
 - deepening students' knowledge regarding the action of man and its impact on the bio-environment stressing the role of culture and values

Methods and Procedures

The focus at this level of study should not only be the appreciation of bios but also consciousness of bios in all its varied forms and manifestations. To realise this as an objective, a variety of activities and approaches may be attempted. To help students develop an appreciation of bios, various experiences should be provided through field studies; the use of audio-visual materials; the setting-up of laboratory experiments and the organisation of talks, debates and discussions on bios. Other more innovative methods may also be attempted such as simulation dramatic presentations of bios, record-keeping and bio-reporting.

Both the cognitive understanding of bios and the values pertaining to bios should constitute the basis for the structuring of the bio-syllabus at the secondary level. This means that science subjects should attempt to teach knowledge about bios as well as sensitise students to appropriate values pertaining to the promotion of bios. Subjects of a humanistic or social science orientation such as history, geography, social studies and music, should help to develop the sensitivity of students to and appreciation of values including the rhythms of life. The contents of the bio-syllabus should include:

- a firm understanding of the chemical basis of life - the development of organic living things from organic matter
- an understanding of cellular structure and function
- knowledge of heredity and genetics including the interaction of heredity and environment in determining behavioural outcomes
- an understanding of viruses and their role in relation to disease
- an appreciation of the evolutionary sequence from primordial life to the present
- an understanding of the biology of man and its various systems viz., circulatory, skeletal, digestive, nervous, reproductive, excretory and endocrine
- knowledge of the invertebrates and their behavioral characteristics
- knowledge of flowerless plants such as algae, phytoplankton, fungi, mosses and ferns and their evolutionary significance
- appreciation of ecological relationships including the structure and diversity of ecological communities
- appreciation of biotic and abiotic factors in an ecosystem
- an understanding of population growth, regulation and interaction including the concept of mutation as the ultimate science of genetic change

As in the case of elementary schools, teachers at the secondary schools should endeavor to engage students in dialogue sessions on the various problems pertaining to bios and its maintenance. Such dialogue sessions could be issue or subject-oriented. The key concern should be the creation of a balanced and morally-sensitive perspective

regarding bios. Given the diversity of cultural traditions and the unique existential circumstances underlying human societies, it is imperative that the approaches proposed to promote bios through education be modified and adapted according to the availability of resources and the perception of needs. It is important that students have both the intellectual and emotional maturity to engage actively in organised efforts to promote the objectives of bios both at the school and community levels.

Tertiary/University Level

Because of the great variety of disciplines and teaching programmes at the undergraduate level, it would not be possible to propose a detailed systematic bio-syllabus suitable for all students. However, it is assumed that students at this point of their learning experience would have absorbed the spirit of scientific inquiry and at the same time, deepened their understanding of the bio-environment as it relates to human societies. Similarly, it is assumed that they would have developed appropriate concerns and attitudes towards bios in general guided at the same time by a sense of service and responsibility.

Since university undergraduates are the potential leaders and decision-makers of society, it is necessary that they possess the requisite knowledge and public sense to discharge their responsibilities in the interest of bios. In an industrial capital-oriented society, certain categories of professional expertise play greater roles or exercise greater influence in determining decisions affecting bios. In this connection, tertiary educational institutions are encouraged to make available bios or bios-related courses at the undergraduate level on an urgent and formal basis. In doing so, it might be necessary to provide built-in incentive systems to ensure that the students adopt a serious attitude toward the concerns of the courses. The department or the faculty must regard these courses as integral to the overall professional education of the undergraduates. In conducting such courses, departmental or faculty staff may bear in mind the following guiding principles:

- the need to develop appropriate and value-oriented technology, one that advances sustainable development
- the need to utilise resources equitably, fairly and efficiently
- the need to ensure viable interdependencies between the bio-environment and economic need
- the need to maximise biological diversity by judicious strategies, and
- the need to monitor population growth to ensure the effective implementation of economic and bio-environment programmes

Implementation

Educational institutions promoting bios through the adoption of a bio-syllabus should endeavor to engage all forms of media (satellite broadcasts, newspapers, magazines both at the popular and professional levels and advertisements) to create and generate public awareness and support for bios and bios-related programmes and initiatives. Bios and its enhancement, in this regard, should be promoted as a total commitment, a way of acting, thinking and feeling which gives a new dimension to life as a global manifestation. In this connection, institutions of higher learning with the requisite resources and commitment should provide the lead in

implementing programmes of study and research whether at degree level or in the form of short courses and learning modules on understanding bios. Universities and colleges with law faculties in collaboration with relevant professional organisations should endeavor to formulate model laws dealing with the fundamental concepts and specific issues pertaining to the impact of biotechnological research on bios. If necessary, relevant international organisations and agencies within or without the UN system should be consulted and their assistance sought.

BIOPOLITICS - THE BIO-ENVIRONMENT - BIO-SYLLABUS

Since its inception in 1985, the Biopolitics International Organisation has been raising awareness of the urgent need for global bio-educational reforms, which resulted in the formulation of a bio-syllabus outline to be used for the implementation of biocentric concepts in all academic disciplines. A comprehensive *Bio-Syllabus* was published by the B.I.O. in 1992. The B.I.O. *Bio-Syllabus* is used as a major textbook in many universities around the world and is available in English, Russian and Greek.

Bio-Ethics

- Bio-Environmental Rights
- Bios Rights as Related to Bio-Ethics
- Animal Research and Bio-Ethics
- Human Embryo/Fetus: Bio-Ethical Implications
- Bio-Ethics in Relation to Artificial insemination and Fertilisation
- Death and Euthanasia
- Human Organs and Tissue in Terms of Bio-Ethics

Bio-Legislation

- Bios Rights
- Bio-Environment and the Enactment of Bios Rights
- Cleaner Production Concepts
- Pollution Prevention: Impact on Legislation
- Making the Polluter Pay
- Long Term Thinking in Relation to the Bio-Environment
- Legislation on Genetic Engineering and Bio-Medical Issues
- Impact of Biotechnology
- The Distinction Between Environmental Law and the Biopolitics Approach

Bio-Business

- Establishing World-Wide Economic Stability
- Introducing Environmentally Friendly Industry
- Sustainability Concept
- Improving Agriculture for the Benefit of the Bio-Environment
- Establishing Waste-Free Production Cycles
- Introducing Ethical Dimensions in Bio-Business
- New Lifestyle and Bio-Business
- Addressing the Public at Large

Bio-Technology

- Methods of Bio-Technology
- Applications of Bio-Technology
- Genetic Engineering
- Human Genome Project
- Ecosystem Bio-Technology
- Bio-Technology and Biopolitics Centres
- The Interface of Biological Science and Business
- Impact of Bio-Technology on Economic Infrastructure
- Biopolitical Dimensions of Bio-Technology

Bio-Energy

- Bio-Energetics and Bio-Energy
- Methods of Technical Bio-Energetics
- Application of Ecosystem Bio-Technology for Bio-Energy Production

Bio-Communications

- Developing Computer Based Idea Banks on Biopolitics
- Promoting Biopolitics through Mass Media
- Use of Satellites in Bio-Communication
- Bio-Sensors
- Bio-Computers
- Imitating Sense Organs in Technology

Bio-Theology

- Bios as the Sacred Gift
- Religion and the Unity of Bios
- The Relationship between Biopolitics and Religion
- The Buddhist Attitude
- The Hinduist Attitude
- The Muslim Attitude
- The Hebrew Attitude
- The Christian Attitude

Bio-Culture

- The Meaning of Culture from a Biopolitical Perspective
- Bio-Aesthetics
- Bio-Literature
- Bio-Culture and Creativity

Bio-History

- Bio-Environment Humankind Interactions in History
- Biological Influences in Human Society
- Bio-History and Educational Reforms

Bio-Architecture

- Bios Patterns and Images in Architecture and Design
- The Biological Basis of Aesthetics: New Dimensions in Architecture
- Employment of Bio-Materials
- Urban Design and Global Planning

Bio-Mathematics

- Macrococosmos and Microcosmos
- Bio-Mathematics and Bio-Education
- Methodology of Bio-Mathematical Models
- The Bio-Environment as a Dynamic System
- Probability and the Bio-Environment: Dynamic Equilibrium and Evolution
- Limits of Bio-Mathematics

Bio-Athletics

- Sports Involving Bios
- Reorganisation of the Olympics on the Basis of Bios Values

Bio-Diplomacy

- Main Bio-Environmental Issues in Bio-Diplomacy
- Organisational Matters Relevant to Bio-Diplomacy
- Importance of Long-Term Thinking in Bio-Diplomacy
- Body of Humanity - Body of Bios

Fundamentals of Biology

- The Fundamentals of Biological Knowledge
- Classification of Living Organisms
- Chemicals
- Nucleic Acids and Genetic Information
- Cells
- Multicellular Organisms
- Ecology
- Evolution

BIOPOLITICS - THE BIO-ENVIRONMENT - VOLUME III**The International University for the Bio-Environment**

Proceedings from the Fourth B.I.O. International Conference, Athens, January 1991

** denotes contributions from the Third B.I.O. International Conference*

Bio-Education as a Pathway to Bio-Culture

Greece: International University for the Bio-Environment - a New Vision, Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation

Singapore: Higher Education and the Bio-environmental Challenge, Professor *Tham Seong Chee*, University of Singapore

Turkey: Towards an International University for the Bio-Environment, Professor *Necdet Serin*, President, Ankara University

USA: Environmental Codetermination: From the Biopolitics Thesis to Praxis, Professor *Climis A. Davos*, Associate Dean for Student Affairs, School of Public Health, UCLA

Belgium: Man-Education-Industry, Dr. *Stefan Klein*, President, International Society for Research on Civilisation Diseases and on Environment

Romania: How to Educate People for a Better Attitude Regarding the Bio-Environment, Dr. *Pia Elena Mihnea*, Romanian Marine Research Institute

USSR: Environmental Education in Modern Society, Professor *Jaanus Kiili*, Tallinn Teachers Training Institute, Estonia; Equilibrium Between Natura and Homo - The Leading Role of the I.U.B.E., *Andrew Belkovsky*, Centre of Human Sciences, Presidium of the Academy of Sciences

Australia: Education for Survival and a Better World, Professor *Stephen Boyden*, Centre for Resource and Environmental Studies, Australian National University

Bio-Culture, from Mythos to the Present

Turkey: Biospherical Anthropocentrism: Persisting Development of the Most Advanced Species, Professor *Yaman Ors*, M.D., Medical Faculty, Ankara University

Greece: Ideologies and Ecological Crisis, Professor *Megas L. Farantos*, University of Athens; Some Approaches to Environmental Issues in Societies of the Past, Dr. *Richard Witt*, New York College, Athens

UK: Environment East - Environment West: Choices for an Environment Syllabus, Dr. *David Watts*, Dean, School of Geography and Earth Resources, University of Hull

Sri Lanka: The Formulation of a Societal Value System for Bios in the Next Millennium, *Kumaran Fernando*, Secretary General, UNA

The Philosophical Quest

UK: Environmental Competence: The New Educational Challenge, Professor *Andrew Brennan*, Philosophy Department, University of Stirling; The Problem of the Definition of Bios*, Professor *Rom Harre*, Department of Philosophy, Oxford University

USSR: Russian Culture and the Synthesis of Ecological Thought, *Maxim V. Provotorov*, Medical Institute of the Soviet Union; Bios and the Metamorphosis of Human Consciousness, Dr. *Nadezhda Shulenina*, Philosophy Department, Lomonosov University, Moscow

Greece: Space, Time and Kairos, Professor *Evanghelos A. Moutsopoulos*, Department of Philosophy, University of Athens, Member Academy of Athens

The Quest for Bio-Ethics

Belgium: Bioethics, Professor *Frederic A. Lints*, Catholic University of Louvain

France: How Far to go in Genetic Engineering and Genetic Manipulation, Professor *E.E. Creppy*, Laboratory of Toxicology and Applied Hygiene, University of Bordeaux II

Belgium: The Bio-Environment - a Gift to be Managed, Dr. *Huberte Hanquet*, Senator, President of the Commission of Foreign Affairs

Turkey: The Meaning of Life from the Christian Point of View*, His Eminence the Metropolitan of Philadelphia, Dr. *Meliton Karas*, Secretary of the Holy Synod, Ecumenical Patriarchate

The Biotechnological Challenge

USSR: Industrial Biotechnology and Biopolitical Problems, Professor *Michail N. Manakov*, Moscow Mendeleev Chemico-Technological Institute Professor *N.B. Gradova*, Moscow Mendeleev Chemico-Technological Institute; Supraorganismic Biological Structures in Biopolitical Terms, Professor *Mikhail V. Gusev*, Dean, Faculty of

Biology, Professor *Vitaly Samuilov*, Deputy Dean, Department of Biology and A. V. *Oleskin*, Department of Biology, Moscow State University

Austria: Biosociety - a Sustainable Society Using Technical Bioprocessing in Natural Cycles, Professor *Anton Moser*, Technical University of Graz

Poland: Biomedical and Ecological Conditions in the Creation of Bio-Environment, *Edward Kamienski*, Director, Centre for Building Biology and Environmental Energy Action

Bio-Legislation - Past and Present Challenges

Greece: The Embryo in Byzantine Canon Law, Professor *Spyros Troianos*, Faculty of Law, University of Athens

Israel: The Protection of Biotechnological Inventions, *Mayer Gabay*, Civil Service Commissioner, Former Director General, Ministry of Justice

Bios and Business

Germany: Towards a "World Budget." Thoughts on a World Resource Tax, Professor *Udo E. Simonis*, Director, International Institute for the Environment and Society, Science Centre Berlin; Motivation of Personnel for more Environmental Protection in Practice, Dr. *Georg Winter*, Chairman of the Board, B.A.U.M. Environmental Management Association

Greece: Bios and Business, *Kitty P. Kyriacopoulos*, Chairman of the Board, Bauxites Parnasse Mining Company S.A.

Turkey: Bios and Developing Economies, *Orhan Karakullukcu*, Industrialist, f. Mayor of Trabzon

Maintaining Bio-Diversity

UK: Tropical Rainforests and Sustainable Use: The Need for Global Education, Dr. *David J. Chivers*, Scientific Director, Department of Veterinary Anatomy; The I.U.B.E., An International Awareness Centre, *William J. Cairns*, Chairman, W.J. Cairns and Partners Belgium Views on the I.U.B.E. Structure, Dr. *Rene van Essche*, Director, Scientific and Regulatory Affairs for the EEC

Turkey: Bio-Diversity in Turkey, Professor *Aykut Kence*, Chairman, Department of Biology, Middle East Technical University

Canada: Restoration of the Coast: Positive Technology at Work, Dr. *Colin D. Levings*, Research Scientist, West Vancouver Laboratory

The Philippines: ASEAN Coastal Management: Paradox Emerging from the Philosophy of Need, Dr. *Miguel D. Fortes*, Marine Science Institute, University of The Philippines

The Netherlands: A Quantitative Method for the Description and Assessment of Ecosystems: The AMOEBA Approach, *B.J.I. ten Brink* and *F. Colijn*, Tidal Waters Division, Ministry of Transport and Public Works

Israel: Perturbations in the Marine Environment and their Impact on Living Resources, Professor *Baruch Kimor*, Faculty of Agricultural Engineering, Israel Institute of Technology

CSSR: The Oceans: Exploitation of Resources and Pollution, Professor *Vaclav K. Mejstrik*, Director, Environmental Ecology Institute, Czechoslovak Academy of Sciences

USSR: Ecological Monitoring of Seas and Oceans The Eco-Aqua Project, Dr. *Vladislav Souponitsky*, General Director of the Eco-Aqua Consortium, Structure of the International

University for the Bio-Environment

France: Has the Time Come for the I.U.B.E.?, *Georges Martin*, Agronomic Consultant

Greece: I.U.B.E. Financial Structure, H.E. Ambassador *Achilles Exarchos*; The Role of the International University for the Bio-Environment, Professor *Basil C. Papadias*, National Technical University of Athens

France: Remarks on the Conditions for the Creation of the I.U.B.E., Professor *Michel Despax*, Honorary President, University of Social Sciences of Toulouse

Ghana: The Structure of the I.U.B.E., *Mike Awua-Asamoah*, Director, Deputy Secretary General, WFUNA Africa Regional Office

Poland: Sailing University, Captain *Krzysztof Baranowski*, International Class Afloat Foundation

USA: A Strategic Approach for Environmental Education, Professor *Nicholas A. Ashford*, Massachusetts Institute of Technology

Turkey: The I.U.B.E.: Its Goals and Clients, Professor *Rusen Keles*, Director, Centre for Environmental Studies, Ankara University

Portugal: The I.U.B.E.: Education and Behaviour, Professor *Antonio Manuel de Sousa Otto*, Director, Ministry of Industry and Commerce

The Framework of the I.U.B.E.

Ghana: Re-directing Societal Values and Attitudes for the Respect of the Bio-Environment *Bernard Kwami Kuma*, Honorary President, WFUNA

Israel: The Strategy Behind Environmental Education, Professor *Lev Fishelson*, University of Tel Aviv

Belgium: Human Ecology as an Example of Interdisciplinary Cooperation, Professor *Charles Susanne*, Laboratory of Human Genetics, Free University of Brussels

Turkey: Some Views on the I.U.B.E., Professor *Ahmet Samsunlu*, I.T.U.

Greece: Priorities and Urgency of Environmental Problems*, Professor *John Papaioannou*, Adviser, Athens Centre of Ekistics

UK: The B.I.O. and the International University for the Bio-Environment, Professor *Andrew A. Brennan*, Department of Philosophy, University of Stirling

Germany: Think Globally Act Locally, Professor *Erich Taubert*, Member of the Board, UNA

USA: Systems Human Ecology: Towards a new Paradigm, Professor *Stephen L. Chorover*, Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology

Turkey: Establishment of the I.U.B.E. to Provide Global Cooperation Professor *Hunay Evliya*, Cukurova University

Poland: The Conception of the I.U.B.E. Bio-Environment, Professor *Jan W. Dobrowolski*, Deputy Dean, Institute of Management and Protection of the Environment, Polish Academy of Sciences

The Netherlands: The Sum of Billions of Individual Decisions Can Mean Change, *Albert T.H. Ten Houten*, Member of the Dutch National Advisory Council for Research on Nature and Environment

Sri Lanka: B.I.O. and the I.U.B.E., Observations on Goals and Objectives, *Kumaran Fernando*, Secretary General, UNA

The Philippines: The I.U.B.E. - Goals and Priorities, Dr. *Liduvina R. Senora*, Executive

Secretary, United Nations Association

The Views of Youth

Greece: I.U.B.E. - the Involvement of Youth, *Christos Efthimiopoulos*, University of Athens and *Alexis Coscoros*, Athens College

The Role of the Media

USA: The Alliance Network for Environmental Education, Professor *Terence John Mills*, Director, Centre for Environmental Education, Oklahoma State University; The Importance of Context: Environmental Education in the United States, Dr. *David W. Shapiro*, Media Specialist

Bio-Syllabus Recommendations

UK: Study of Environmental Science at British Universities*, Dr. *Robert T. Taylor*, British Council, Athens; Biopolitics and the Peace Studies Curriculum*, *Terence Duffy*, Senior Tutor in Peace Studies, University of Ulster

USA: One Week Programme in Bio-Habitability*, Professor *Giulio Pontecorvo*, Director, Centre for Business and Government Studies, Columbia University

The Netherlands: A Bio-Syllabus: Cleaner Production - Theory, Concepts, Practice, Professor *Donald Huisingh*, Erasmus Centre for Environmental Studies

Israel: The B.I.O. Curriculum: The "Beyond" Curriculum, Professor *Edna Aphek*, The Seminary of Judaic Studies

Hungary: Bio-Environment Courses in the Economics University Professor *Gyula Bora*, Rector, Budapest University of Economics

Turkey: The I.U.B.E. - A Special Subject Model, Professor *Zafer Erturk*, Dean, Technical University Karadeniz

USSR: On the Problem of Anthropocentrism and Biocentrism, Professor *Mikhail V. Gusev*, Dean, Faculty of Biology, Moscow State University; Majoring in Biopolitics in the I.U.B.E., Dr. *Boris A. Gontarev*, President, Academy of World Civilizations, Moscow

Israel: Curriculum Format of the I.U.B.E., Dr. *Uri Marinov*, Director General, Ministry of the Environment

The Philippines: Global Environmental Scenario a Concern of the I.U.B.E., *Gloria Castro Gatchalian*, Project Director, *Eulogio Amang Rodriguez* Institute of Science and Technology

Bio-Diplomacy

Turkey: Bio-Diplomacy and the Bio-Environment H.E., Ambassador *Gunduz Aktan*

Colombia: Bio-Diplomacy: The Colombian Dimension, Ambassador *Eduardo Barajas*

Morocco: Aspects of Environmental Policy in Morocco, Ambassador *Abdelaziz Laabi*

Sudan: The African Dimension, H.E. Ambassador *Tagelsir Mohamed Abbas*

Israel: The Challenge of Protecting the Bio-Environment,* Ambassador *Moshe Gilboa*

Egypt: Egyptian Policy, Environmental Protection and International Co-operation, Ambassador *Ahmed Shaban El-Zant*

Bio-Policy

USA: Educational and Political Outreach by the I.U.B.E., *Jordan A. Horvath*, Board of Directors, UNA and *James P. Muldoon, Jr*, Director, Model UN and Youth, UNA

Nigeria: The Bio-Syllabus African Dimension: The Need for International Education, *Tina Uwechue*, Barrister at Law, Vice-President, UNA

China: A Quick Glance at a Developing Country's Bio-Environmental Education, *Liu Chun Yu*, Deputy Director, Pollution Control Department, Environmental Protection Agency

Japan: Approach to Global Environmental Issues, Prof. *Jiro Kondo*, President, Science Council of Japan, Director, Research Institute of Innovative Technology for the Earth

Israel: The Israeli Environmental Scenario for the Year 2025, Dr. *Amram Pruginin*, Deputy Director General, Ministry of the Environment

Poland: Ecodevelopment-Education-Politics, Professor *Stanislaw Radwan*, Academy of Agriculture, Institute of Physical Planning; Bio-Environmental Protection, the Present and New Vision, Professor *Krzysztof Korzeniewski*, Institute of Oceanography, University of Gdansk and Professor *Janina Ewert*, Faculty of Mathematics and Sciences, Pedagogical University, Slupsk

USSR: Protection of the Environment - a Part of the Soviet Union's Science Policy, Professor *Y. Karabasov* and Professor *A. Shlikov*, State Committee for Science and Technology

Germany: Ecological Urban Restructuring, Professor *Udo E. Simonis*, Director, International Institute for the Environment and Society, Science Centre Berlin and Dr. *Ekhart Hahn*, Research Fellow, Science Centre of Berlin

CSSR: Political Decisions on Ecological Problems: Anthro-ecological Approach, Dr. *Jaroslav Stoklasa*, Chairman of the Federal Committee for the Environment, Academy of Sciences

Yugoslavia: Environment, Survival and Bioethics: The Drama of Contemporary Civilisation, Professor *Dusan Kanazir*, President, Serbian Academy of Sciences and Arts.

RESOLUTIONS

At the end of the Fourth B.I.O. International Conference on the *International University for the Bio-Environment (I.U.B.E.)*, held in Athens January 10-14, 1991, the following resolutions were unanimously accepted by the participants:

Introduction

The survival of humanity has reached a critical juncture, and much depends on our willingness and determination to maintain life in all its diverse forms. To successfully do so entails no less than the intelligent and effective management and utilisation of earth's finite resources, guided by an appropriate and globally relevant moral-ethical system that is *bio-sensitive*. Technology will continue to be of high priority in our ceaseless search for solutions to the challenges of survival and material improvement yet, at the same time, it must be a technology tempered by wisdom. The evidence available points to the urgent need for both national and international action to arrest and, better still, reverse the destructive processes set in motion by decades of unrestrained misuse and exploitation of life-supporting systems throughout the world. New values must be created and new

perspectives formulated to harness the benefits of technology to direct humankind safely into the next millennium.

The Rationale Behind the I.U.B.E.

Recognising the cumulative threats to bios (life) and the urgent need to promote a *global* and *holistic* approach to addressing them, the Biopolitics International Organisation (B.I.O.) arranged the Fourth International Conference to discuss, plan and initiate the establishment of the I.U.B.E. This initiative to create a formal educational structure to promote, facilitate and implement the objectives of the B.I.O. represents a logical and tangible step forward to safeguard the earth for generations to come. The international representatives gathered at the conference were unanimous in their support of the initiative and pledged their continual commitment to the goals of the B.I.O.: (i) To promote *international co-operation* for better understanding bios. (ii) To promote the development of international legislation on *Bios Rights*. (iii) To promote the *bio-assessment* of technology, a dialectic approach to examining potential perspectives in all fields of human endeavour in an effort to improve the quality of life. Greece has been proposed as an ideal meeting place for the dialectic exchange of ideas and search for values for the new millennium. Scientists, academicians and philosophers, as well as every individual, may bequeath their thoughts to a *Bank of Ideas*. (iv) To *sensitise* public opinion to the ramifications of the biological sciences, and the impact this progress may have on other fields of study (bio-diplomacy, bio-law, bio-economics, bio-art, bio-literature, bio-environment, etc.). (v) To introduce educational reforms internationally so as to shift from an *anthropocentric* to a *biocentric* curriculum and place the better understanding and appreciation of the bio-environment as the core of an *integrated* educational system.

The Educational Dimension of the I.U.B.E.

Humankind's current existence seems to be underlined by paradox. On the one hand, technological progress holds great promise for a more secure future, positioning humankind to enter the next millennium with confidence. On the other, however, there is great moral-ethical uncertainty as to how technology may be fruitfully enhanced to fulfil humankind's material and spiritual needs. In other words, technology has been both life-enhancing and life-threatening.

The key to overcoming this predicament without a doubt lies with education, and must rest on two basic premises: (1) it must increase, improve and extend humankind's technological competence to enable us to seek viable and appropriate solutions to maintain life in all its diversity; (2) it must create a system of moral-ethical values that can serve as a guide for technology and its application. The latter would require a fundamental shift or re-alignment of currently accepted ways of thought and action with respect to bios. The educational practice today is characterised by excessive specialisation resulting in the *fragmentation* of thought or a distorted vision of reality. Science and technology have become purely instrumental and utilitarian, out of harmony with basic life-sustaining processes. To reverse this trend therefore requires a *new* educational vision - one that is holistic and bio-sensitive and yet capable of addressing the continually

evolving needs of humankind as a whole. Such an approach to education recognises no artificial boundaries based on geography or ideology. The unifying feature of this new educational approach is life itself - its preservation, protection and enhancement in all its variety and forms. Humankind must be made to recognise that life is an interdependent and harmonious whole and, having realised its nature, we must formulate ideas and initiate actions in order to preserve it.

This would require effective international co-operation for a better understanding of bios and the bio-environment and the institution of a global educational philosophy that stresses the value of life in all its diversity.

The International University for the Bio-Environment

Preamble

In consideration of bios in the next millennium and in consideration of the need to create, transmit and internalise a shared value system conducive to the protection of bios, a formal educational structure designated as the *International University for the Bio-Environment* (I.U.B.E.) was proposed and adopted by the Conference. The decision to establish the I.U.B.E. gives full credence to the activating role of education in the creation of a *meta-university model*, one that embraces the needs of the future generations and assures the respect and preservation of the bio-environment. The I.U.B.E. will not only offer educational alternatives but will also actively engage educational institutions throughout the world as partners in the process of effecting desirable and necessary changes of curricula and teaching to promote bios.

Structure and Governance

The I.U.B.E. will be guided by the traditional functions of a university with respect to teaching, research and public service, as well as co-operating with other universities, international organisations, environmental institutions and industries. The I.U.B.E. aims to influence decision makers at every level, so as to impress upon them the need to incorporate respect for the bio-environment in their short- and long-term planning. However, its central concern will be to formulate and disseminate new educational alternatives with a view to instituting a value system that is bio-sensitive. In doing so, it will avoid duplicating efforts initiated by other organisations. Therefore, its main aims are: (i) To propagate educational reforms principally by identifying and developing a model global bio-education to meet the needs of the meta-industrial era, and infuse original models for existing educational institutions to implement bio-environmental education. (ii) To identify, develop and implement trans-disciplinary educational strategies on bios. (iii) To construct and develop needed concepts for the effective teaching of bios and bios-related subjects at all educational levels. (iv) To educate and train experts in all fields of bio-environmental education. (v) To initiate regional co-operation principally in developing feasible systems or models for bio-environmental protection and the implementation of plans and programmes requiring trans-national co-operation. (vi) To facilitate the establishment of an international information system on the bio-environment through the media, and especially satellites. (vii) To initiate an

international exchange for scholars and practitioners in bio-environmental education. (viii) To propose and initiate needed legislation and policy reforms in bio-environmental protection. (ix) To encourage the creation of a clearing house for both dedicated individuals and established organisations to provide, through the use of computer link-ups, a network of people wishing to co-operate and contribute towards saving the bio-environment. (x) To generate environmental action groups, drawing from the enthusiasm of youth and the experience and know-how of retired people to tackle local bio-environmental issues. (xi) To set the foundation for the furthering of bio-cultural models.

To achieve the aforementioned aims over the short and long terms, the following recommendations were made: (i) The B.I.O. should establish a Scientific Council composed of eminent scientists to help identify issues and problems threatening bios and recommend individuals of merit and stature from a broad spectrum of expertise who can be involved in addressing them. (ii) Holding consultative meetings to formulate educational and research programmes relevant to the pursuit of B.I.O. objectives. (iii) Proposing policy changes that will facilitate the implementation of decisions adopted.

To ensure that the I.U.B.E. attains the optimum outreach, it was proposed that political leaders, community groups, and corporate interests be sensitised to the objectives of bios. Furthermore, media must also be engaged in the cultivation of public opinion and the dissemination of relevant information on issues pertaining to bios. Indeed, for the I.U.B.E. to become fully effective, a quadripartite relationship involving the B.I.O., universities, industry and labour must be instituted so as to place the required linkages. Clearly, for the I.U.B.E. to make the expected impact, it has to communicate effectively and adequately, using all appropriate media including networking and satellite communication. Similarly, it will have to explore and develop original methods of conveying bio-environmental information, including the construction of informational models and programmes to be aimed at groups and communities with special needs, particularly youth, the aged, and the deprived.

The Conference adopted a tentative scheme to actualise the concept of the I.U.B.E. under the aegis of the B.I.O.: (i) The institution of a Governing Board. (ii) The establishment of a central facility incorporating the I.U.B.E. secretariat, library and facilities for sabbaticals, student internships, workshops and meetings. The central facility will also function as a data base listing industry, academic institutions and environmental groups throughout the world. (iii) The creation of a body known as the Club of Athens. The membership of the Club will be composed of eminent and influential individuals, particularly those sympathetic to the objectives of the B.I.O. and whose presence would contribute to the growth of the I.U.B.E.

The Conference adopted the proposal to draw up a legal charter for the I.U.B.E. It also accepted the recommendation to create a Fund Raising Committee with the appropriate status and authority to solicit seed money for the implementation of the I.U.B.E. The Committee's immediate task is to plan the realisation of this objective. Finally, it was proposed that the I.U.B.E. should take immediate steps to set up the administrative headquarters in Athens to undertake the task of co-ordination and implementation. The administrative headquarters' main task is to lay the foundation for the formal incorporation of the I.U.B.E. at the appropriate time under the B.I.O. auspices.

Conclusion

The Conference took note of the need to move with caution and realism in implementing the goals of the International University for the Bio-Environment (I.U.B.E.). The Conference also recognised the importance of mobilising more support from the international community. At the same time, the participants understood the need for commitment and hard work and pledged their full assistance to the Biopolitics International Organisation (B.I.O.). To that end, they pledged their support to Dr. Agni Vlavianos-Arvanitis, B.I.O. President and Founder, in her efforts to promote the objectives envisaged for the I.U.B.E. in Athens. The I.U.B.E. will serve as the prime vehicle for both the pursuit of B.I.O. objectives as well as in the implementation of the proposed programmes and projects on a global basis.

BIOPOLITICS THE BIO-ENVIRONMENT - VOLUME IV

Proceedings from the Fifth B.I.O. International Conference

Istanbul, May 1992

The Bio-Environment and International Co-operation

Greece: Bios in the Next Millennium: Reversing the Crisis of Values, Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation

Turkey: The Responsibility of Universities, Professor *Necdet Serin*, President, Ankara University; A Responsibility for the Bio-Environment, Professor *Rusen Keles*, Faculty of Political Sciences, Ankara University; Biopolitics and International Co-operation, Professor *Nurettin Sozen*, Faculty of Agriculture, Ankara University; Planning for the Bio-Environment, *Hayri Kozakcioglu*, Governor of Istanbul; The Bio-Environment: Central and Local Policy, *Ismet Sezgin*, Minister of Interior; Bio-Environment and Development, *Abdulkadir Ates*, Minister of Tourism; Biopolitics and Governmental Policy, *Doganacan Akyurek*, Minister of Environment

Bio-Diplomacy

Sweden: The Art of Bio-Diplomacy H.E. Ambassador *Kai Falkman*, General Consul of Sweden in Istanbul

Greece: The Unfinished Symphony, *Andreas Politakis*, Honorary Doctor, Founder of the Ipekci Peace and Friendship Prize

Russia: *Valerij Grishin*, Head of Information, Council of Ministers of Russia

Bio-Assessment of Technology

Sri Lanka: Needed Educational Revision on the Impact of Technology, *Kumaran Fernando*, Secretary General, UNA

USA: Technological Imperatives - Challenges and Solutions, Professor *Nicholas Ashford*, Massachusetts Institute of Technology

Turkey: Preservation of Environmental Problems for the Future, Dr. *Adnan Aydin*, Director, Environmental Research Centre, Marmara University

Czechoslovakia: Anthro-Ecological Approach of Technology, Dr. *Jaroslav Stoklasa*, Chairman of the Commission, Czechoslovak Academy of Sciences

Bio-Ethics and Bio-Legislation

Yugoslavia: Bioethics, Survival and Global Drama, Professor *Dusan Kanazir*, President, Serbian Academy of Sciences and Arts

France: Legal System of Fauna and Flora Protection in France, Professor *Michel Despax*, Honorary President, University of Social Sciences, Toulouse, Professor *William Coulet*, University of Social Sciences, Toulouse

Greece: Bios Rights - Legal Dimensions Related to the Preservation of the Bio-Environment, Dr. *Angelos Tsihrintzis*, Attorney at Law

Russia: Bio-Ethics and the Role of Women's Organisations, Dr. *Alexandra Momdjan*, President, International Women's Center, Vice President, Academy of Creative Endeavours

Turkey: Biopolitics in the Light of Bio-Ethics, Professor *Yaman Ors*, Ankara University Medical School

The Role of Bio-Education

Russia: Biopolicy and the Training of Engineers: Biotechnologies in Russia, Professor *Michael Manakov*, Member of the Academy of Sciences and Head of Department, Mendeleev University of Chemical Technology, Professor *Pavel Sarkisov*, Rector, Mendeleev University of Chemical Technology

Turkey: The Role of Education and Technology for Efficient Environmental Policy, Professor *Nur Sozen*, Faculty of Agriculture, Ankara University; Environment and Adult Education, Professor *Cevat Geray*, Director, *Ernst Reuter* Center of Urban Studies, Faculty of Political Sciences, Ankara University; Environmental Education in Turkey, *Mehmet Tuncer* and *Memet Erol*, University of Ankara; Co-operation between Universities and Industry in Environmental Protection, Professor *Ahmet Samsunlu* and Professor *Veysel Eroglu*, Istanbul Technical University

Nigeria: The Need for the Integration of Environmental Concept in University Teaching - The Role of the I.U.B.E African Dimension, *Tina Uwechue*, Vice-President, UNA

Japan: Bio-Diversity, Professor *Jiro Kondo*, President, Science Council of Japan

The Philippines: The Role of the I.U.B.E. in Natural Disasters, Dr. *Liduvina Senora*, Executive Secretary, UNA

Greece: International Exchange Programmes in Bio-Education - A New Perspective for Youth, *Christos Efthimiopoulos*, University of Athens, B.I.O. Member

Bio-Policy and Bio-Economy

Germany: Toward a Houston Protocol - How to Allocate CO₂ Emission Reductions Between North and South, Professor *Udo Simonis*, Director, International Institute for the Environment and Society, Science Center Berlin; Poverty, Environment and Development, *Deonanan Oodit*, Senior Economic Affairs Officer, United Nations, New York

Hungary: Contradictions of Technical Improvement in the Transition Time from Planned to Market Economy in Hungary, Professor *Gyula Bora*, Vice-Rector, Budapest University of Economics

The Netherlands: Bio-Environmental Imperatives for Decision Making, *Albert ten Houten*, Milieu and Organisatie B.V. The Netherlands; Business and Bio-Environment,

W.L. van Oyen, Consultant, Ministry of Environment

Turkey: Ecotourism and Education, *Mehmet Arif Demirer*, Industrialist; Man, Environment, Technology and Universities, Professor *Aykut Kence* and Professor *Meral Kence*, Department of Biology, Middle East Technical University, Ankara

Romania: The Implementation of Biopolitics in Romania, Dr. *Pia Elena Mihnea*, Institute for Marine Research Technology and the Preservation of the Environment

RESOLUTIONS

At the end of the Fifth B.I.O. International Conference, the following resolutions were unanimously accepted by all participants, who first and foremost pledged complete support to the B.I.O. goals:

- the International University for the Bio-Environment constitutes the primary effort of the B.I.O. and needs to be used as the tool to implement the goals of the B.I.O. as stated in all previous conferences and resulting publications, since those include the commitment of representatives from 54 countries
- the biopolitics vision must be urgently implemented. This includes the sensitisation of all media, communications, educational institutions, representatives from industries and governments and decision makers in all levels of vertical responsibility on the need to place in the core of action and learning the respect for the bio-environment as a new value system
- this reform should be an on going process contributing to the harmonious coexistence of all forms of life and shifting from anthropocentric to biocentric values (bio-economics, bio-culture, bio-ethics, bio-legislation, bio-architecture, bio-theology)
- since in a consumer society money constitutes a value system which needs to be revised, it was resolved to consider as a priority a new definition of profit. Today's society equates value with the quantity of money. This understanding may evolve to include also the dimensions of quality of life.
- the active participation of women and youth in the decision making process is of utmost importance for the preservation of the bio-environment. In view of the Rio de Janeiro Earth Summit, it was proposed that the following be included as

As previously published and recommended, a World Referendum could provide the expression of opinion by every individual of our Planet on the wish "to support the bio-environment and the continuation of bios."

Bio-diplomacy may serve as a new pathway of international co-operation. Bio-diplomacy substitutes the policies of fragmentation and division with a far-sighted unifying vision of interdependence. Since all people belong to the body of humanity, differentiation in culture, colour, tradition, religion may be viewed as an enrichment of bios rather than reason for division. In addition, all living species belong to the body bios and the protection of bio-diversity and harmonious coexistence of all forms of life constitute the basis of bio-diplomacy.

BIOPOLITICS THE BIO-ENVIRONMENT
BIO-CULTURE IN THE NEXT MILLENNIUM - VOLUME V

Proceedings from the International Sakharov Festival
Athens, July 28-31, 1994

Bios Theory

Greece: Biopolitics - The Bio-Environment Bio-Culture in the Next Millennium, Dr. *Agni Vlavianos-Arvanitis*, Founder and President, Biopolitics International Organisation

Bio-Diplomacy

Sweden: The Presence and Essence of Bio-Diplomacy, Ambassador *Kai Falkman*, Ministry of Foreign Affairs

Turkey: Biopolitics as a Tool for Sustainable Solidarity, Professor *Rusen Keles*, Director of Environmental Studies, Faculty of Political Sciences, Ankara University; International Environmental Co-operation: Retrospect and Prospect, Professor *Ayşe Gulgun Tuna*, Department of International Relations, Bilkent University

Greece: Bio-Diplomacy as a Dimension of Bio-Culture, Ambassador *Panayotis Economou*, Public and International Relations Advisor, Biopolitics International Organisation; The European Parliament Sakharov Prize, *George E. Saridakis*, f. Member of the European Parliament

Czech Republic: Revival of the European Soul: Post-Socialist Europeans Neglected but not Negligible, Ambassador *Jiri Marvan*, Ambassador of the Czech Republic to Greece

Egypt: New Pathways for International Co-operation, Ambassador *Ahmed Nabil El Salawy*, f. Ambassador of Egypt to Greece

Bio-Legislation

Greece: International and European Union Action Against Climate Change, *George Strongylis*, Commission of the European Union, Direction DG XI; Human Rights and the Environment: a Common Future, *Panayotis Karafotias*, f. Officer in Charge, United Nations Information Centre

Russia: Proposals for Environmental Preservation, *Yuri A. Korolev*, Institute of Legislation and Comparative Law

Peru: Bio-Legislation as a Solution to Environmental Problems in South America, Dr. *L.E. Ruelas Lierena*, United Nations Association Institute for Green Areas

Slovak Republic: Diplomacy and International Law in the Service of Biopolitics, Professor *Juraj Cuth*, Professor of International Law

Bio-Economics

Japan: How to Compete in the 21st Century? The Importance of an Ethical and Environmental Corporate Commitment, Dr. *Gunter Pauli*, Advisor to the Rector, United Nations University, The Zero Emissions Research Institute

USA: Building a Sustainable Future, Professor *Nicholas Ashford*, Technology and Policy, Massachusetts Institute of Technology; Exploring Links Between Business and the Environment, Dr. *Julia Panourgia-Clones*, Environmental Consultant, The World Bank;

Resource Conservation and Utilisation: a Magnificent Opportunity, *J. Patrick Nicholson*, Chairman and CEO, N-Viro International Corporation

Greece: How to Escape from the Cycle of Environmental Degradation, *Assimakis Fotilas*, f. Head, Investments Promotion Centre, UNIDO; Environmental Leadership: a New Business and Marketing Era, *Panayotis Vongas*; Technological Progress and the Future of Bios, *Nikos Katsaros*

Switzerland: The Bio-Environment as a Managerial Challenge, Dr. *Peter Kalantzis*, President, Lonza Ltd.

Hungary: Systems Analysis of Bio-Economy: Entropy and Negentropy in Biopolitics, Dr. *Lászlo Kapolyi*, President, Systems International Foundation; The Role of Economics in the Process of Sustainable Development, Professor *Gyula Bora*, Department of Economic Geography, Budapest University of Economic Science

Bio-Policy

Japan: From Zero Defect, through Zero Inventory, to Zero Emissions, Dr. *Gunter Pauli*, Advisor to the Rector, United Nations University, The Zero Emissions Research Institute

Sri Lanka: Biopolitics: a New Approach to the Politics of Sustainable Development, A. *Henry Karunaratne*, Honorary President, United Nations Association

Hungary: Global Environmental Change: a Vision for a Better World, Professor *Hunay Evliya*, Director, Centre for Environmental Research, Çukurova University

Russia: The Environment and National Minorities, Dr. *Reguina A. Yavchunovskaya*, Academy of Creative Endeavours; Bio-Policy: Itinerary for Future Social Developments, Dr. *Natalia Grigorieva*, Academy of Creative Endeavours

Turkey: Bio-Architecture as a Policy for Urban Planning, Professor *Ali Ozbilin*, Vice Dean, Department of Landscape Architecture, KTU Faculty of Forestry

Yugoslavia: Bio-Policy: a Quantitative Analysis of the Bio-Environment, Dr. *Ivana S. Djujic*, Institute of Chemistry, Technology and Metallurgy, Belgrade University

Finland: The Second Industrial Revolution: a Summary, Dr. *Eero Paloheimo*, MP

India: Forestry: Reconciling Poverty and Equity Concerns, Dr. *Kamla Chowdhry*, Chairperson, Centre for Science and Environment

Regional Policy

Sudan: Co-operation for Survival, Professor *Faysal Tageldim Abushama*, Director, National Centre for Research

Czech Republic: The Environmental Situation in Central and Eastern Europe: the Czechoslovak Example, Dr. *Jaroslav Stoklasa*, Environmental Advisor, Czech Academy of Sciences

Indonesia: Human Values, Modern Technology and Bio-Environmental Preservation, Professor *S. Budhisantoso*, Ministry of Environment

Romania: Environmental Protection and Scientific Research in Romania, Dr. *Mariana Constantinescu*, Ministry of Waters, Forests and Environmental Protection

The Philippines: A Developing Region's Investment in Natural Capital, Professor *M. Dino Fortes*, Marine Science Institute

Lithuania: Biopolitics Goals: Lithuania's Obligations, Professor *Leonardas Kairiukstis*,

Director of State Scientific Project ECOSLIT, Lithuanian Forest Institute

Russia: New Approaches to Environmental Management in Northwest Russia, Professor *Alexander I. Shishkin*, St. Petersburg State Technological University for Plant Polymers

Cambodia: The Environmental Situation in Cambodia: Policy and Instructions, Dr. *Ung Phyrun*, Deputy Director General, State Secretariat for Environment

Water Management

Germany: Marine Biology, Pollution and the Protection of Nature, Professor *Wilfried Gunkel*, Former Director, Biologische Anstalt Helgoland

Turkey: The Conservation of Wetlands, Professor *Aykut Kence*, Chair, Department of Biology, Middle East Technical University

Romania: Reservoir Development and Exploitation for a Normal Trophic State, Dr. *Emil Rus*, Head, Hydraulics, Environmental Engineering Research Institute; Equilibria in Aquatic Environments, Dr. *Gabriella Ivancea*, Department of Aquatic Ecology, Ministry of Waters, Forests and Environmental Protection

Poland: Do We Need Protected Areas in the Baltic?, Professor *Anna Szaniawska and K.E. Skora*, Institute of Oceanography, Gdansk University; The Baltic Sea as a Great Potential Area for Biopolitics, Dr. *Eugeniusz Andrulewicz*, Department of Oceanography, Marine Quality Unit, Sea Fisheries Institute

Israel: Enclosed Coastal Seas - A Case Study: the Gulf of Aqaba, Red Sea, Professor *Baruch Kimor*, Faculty of Agricultural Engineering, Technion - Israel Institute of Technology

Bio-Education

Brazil: Shaping the Future: Education for a Global Responsibility, Dr. *Paulo C. Moura*, President, Institute of Political and Social Studies

The Philippines: Bio-Education for All: Achieving Environmentally Literate Global Citizens, Professor *Liduvina R. Senora*, UNA Executive Secretary, Eulogio "Amang" Rodriguez Institute

Poland: How to Improve Bio-Education, Professor *Leszek Kuznicki*, President, Polish Academy of Science; Democratisation and Bio-Education: Action for a Better Quality of Life, Professor *Jan W. Dobrowolski*, Open University AGH, Polish Academy of Sciences

Sri Lanka: Biocentric Education and Development, *Kumaran Fernando*, Secretary-General, United Nations Association

France: The Bio-Environment in Primary Education, *Georges Martin*, Agricultural Engineer, Agronomic Consultant

Russia: Problems of Biopolitics in Teaching Chemical Technology, Professor *Pavel Sarkisov*, Rector, Mendeleyev University of Chemical Technology and Professor *Michael Manakov*, Director, Biotechnology Centre, Mendeleyev University of Chemical Technology; Humanitarian Education in Russian Technical Universities, Dr. *Lidia Masalkowa*, Department of Human Sciences, Mendeleyev University of Chemical Technology; Bio-Education and its Contribution to Bio-Culture in the Next Millennium, Professor *Inna Parkhomenko*, Associate Professor of Biophysics, Moscow State University; Bio-Education: an Avenue Toward Sustainable Development in the Third

Millennium, Professor *Sergey A. Ushakov*, Director, Earth Science Museum, Lomonosov Moscow State University; Biopolitics and the Problems of Professional Education in Russia, *Natalia Kuznetsova*, Financial Director, International Academy of Entrepreneurship: Bio-Education: the Realisation of Biocentric Values, Dr. *Nadezhda Shulenina*, Philosophy Department, Moscow Academy of Chemical Engineering

Belarus: Educational Challenges in the Post Chernobyl Years, Dr. *Alexander M. Lutsko*, Rector, International Sakharov College on Radioecology

Lithuania: Bio-Environmental Education: The Lithuanian Experience, Dr. *Vitalij Denisov*, Department of Applied Mathematics, Klaipeda University and *Sergej Olenin*, Centre for Systems Analysis, Klaipedia University

Israel: Biopolitics and Creative Thinking: the Search for Alternatives, Professor *Edna Aphek*, University of Jerusalem

Slovak Republic: Distance Learning for the Environment, *Jan Morovic*, President, City University Bratislava

The Netherlands: Bio-Educational Reforms in Academic Curricula, *Albert Th. Ten Houten*, ATHMO, Wageningen

Serbia: An Environmental Approach to the Educational Process, Dr. *Gordana Brun*, Advisor to the Minister of Environment

Czech Republic: Raising Environmental Awareness through Education, Dr. *Jan Cerovsky*, President, ECOPOINT Foundation, Senior Scientist, Czech IUCN

UK: Literature and the Arts in the Biopolitics Curriculum, Dr. *Richard Witt*, Vice President, Society of Greek Scientists

Bio-Energy

Greece: Bio-Energy Perspectives versus Bio-Environmental Concerns, Professor *Basil C. Papadias*, Department of Electrical Engineering, National Technical University of Athens; Global Balances, Professor *Vlassios Sotiropoulos*, Head, Energy Department, Physical Process Laboratory, Aristotle University of Thessaloniki

Israel: Bios and the Physics of Light, Professor *Andrei Rubin*, Head, Department of Biophysics, Moscow State University

Biotechnology and Agriculture

Belgium: Biotechnology and Agriculture, Professor *Frederic A. Lints*, Catholic University of Louvain

Ethiopia: A Biotechnology Strategy for African Food and Agriculture, Dr. *Ali Haribou*, Project Analyst, United Nations Economic Commission for Africa

Greece: Ecology and Agriculture, Professor *Thomas Alifakiotis*, Department of Agricultural Engineering, Aristotle University of Thessaloniki

Israel: Decreasing Industrial Pollution and Improving Agriculture in Israel, Professor *J. Stefan Rokem*, Department of Applied Microbiology, Institute of Microbiology, Hebrew University, Hadassah Medical School

Bio-Health

Russia: Russia and Siberia: Health Problems in Environmentally Damaged Territories,

Professor *Sergei I. Kolesnikov*, Co-President, International Physicians for the Prevention of Nuclear War

UK: Bio-Environment and Research on Health, Professor *Gustav V.R. Born*, Director, William Harvey Research Institute

Estonia: Environmental Co-operation and Children's Health, *Sirje Loot*, Legal Advisor

Romania: Biometeorology and Quality of Life, Dr. *Doina Popescu*, National Institute for Hydrology and Meteorology

Iran: The Rhythm of Bios, Dr. *Hossein S. Mehraban*, Psychology Department, Shiraz University

Hungary: An Extravagant Promise for the Future: Clean Air Over Central and Eastern Europe, *George J. Kollmann*, Chief Counsellor, Ministry of Welfare

Russia: New Technology and the Professional Healthy Man, Dr. *Yuri I. Voronkov*, Head, Department of Cosmonaut Selection, Ministry of Health

Israel: Bio-Environmental Quality, Health and Peace, Professor *Lev Fishelson*, Department of Zoology, Tel Aviv University

Bio-Ethics

Turkey: Defining Bio-Ethics, Professor *Yaman Örs*, Unit of Medical Ethics, Medical Faculty, Ankara University

Greece: A Bio-Ethical Assessment of Biotechnology, Dr. *Christos Yapijakis*, Department of Neurology, University of Athens

Bio-Philosophy - Bio-Culture

India: Buddhism and Environmental Activism, Dr. *Kamla Chowdhry*, Chairperson, Centre for Science and Environment

UK: Faith and Bios, Rabbi Dr. *Norman Solomon*, Fellow in Modern Jewish Thought, Oxford Centre for Hebrew and Jewish Studies, University of Oxford; Bio-Activism: Toward a Culture of Peace, Dr. *Terence M. Duffy*, Director of Peace Studies, University of Ulster, Magee College

The Philippines: Love Versus Greed: a Key to the Prolongation of Life, Dr. *Gloria Castro-Gatchalian*, Dean, College of Arts and Sciences, Eulogio "Amang" Rodriguez Institute

Greece: Aristotle and the Bio-Environment, *Efstathia Valiantza*, Environmental Engineering Consultant; A Flight of Fancy: Music in the Next Millennium, Professor *John Papaioannou*, Advisor, Centre of Ekistics

Turkey: Inspiration From Nature and Culture for a Joint Attitude Towards the 21st Century, Professor *Nur Sözen*, Department of Landscape Architecture, Ankara University

Czech Republic: Protecting Bios in the Next Millennium: What Does it Mean?, Dr. *M. Lapka and V. Mejstrik*, Institute of Landscape Ecology, Czech Academy of Sciences

Colombia: Biopolitics as a Renewed Expression of Classical Humanism, Professor *Mario Calderon Rivera*, f. Ambassador to Greece, Santillana Foundation for Latin America

Croatia: Rationality and Cultural Capital in Improving International Understanding, *Sanjin Dragojevic*, Institute for Development and International Relations

RESOLUTIONS

Preamble

The International Sakharov Festival, with Theme *Biopolitics - the Bio-Environment - Bio-Culture in the Next Millennium*, took place in Athens, July 28-31, 1994, and constituted the VIth international conference held by the Biopolitics International Organisation. Upon completion of the conference, the following resolution was unanimously adopted:

In order to curb the destruction of biological species, habitats and ecosystems, and progress toward a biocentric society, it is essential to recognise the cumulative threats to bios, and the urgent need for a global and holistic approach to combating them. Therefore, all participants agree to promote and implement all resolutions and deliberations adopted by previous B.I.O. conferences, and pledge complete support to the following recommendations:

RECOMMENDATIONS

The international community should create a sound ethical foundation for the work of protecting bios, firmly rooted in major local communities, and respecting indigenous cultures and their educational systems. Measures also need to be taken toward achieving greater social justice on a global level. It is thus imperative to inform, and most importantly, to influence those involved in decision-making processes, i.e., governmental officials, financial institutions, corporations, universities and research centres, so as to advance toward a society comprising responsible and affected citizens.

1. ENVIRONMENTAL OLYMPICS - BIOS PRIZES

Environmental Protection at the Core of Every Human Endeavour

We are on the threshold of a new millennium. In order to overcome the crisis of values in modern society, brought on by severe environmental deterioration, a new order of priorities is essential. Due to serious threats to the environment, the gift of bios is endangered. Everyone has to take action if we are to reverse negative trends and ensure the harmonious coexistence of all forms of life. Humanity is wasting time. Solving environmental problems requires a dynamic approach, combining past experience and present opportunities to establish new, enriched models for the future. In 1992, as an effort to raise the necessary awareness of the urgent need for environmental action and promote new incentives for environmental protection, B.I.O. proposed the enrichment of the Olympic Games with new biocentric values.

Presently, the Olympic Games, a beacon for world peace and hope, are limited to physical achievement. However, this restricts the potential of the "Olympic Spirit," a concept that should evolve to encompass all possible accomplishments, both physical and intellectual. As a result, the B.I.O. has proposed the establishment of international

committees in every field of human endeavour, assigned to assess progress in their respective fields. Bios Prizes in each field will be awarded every four years, at the time the Olympic Flame is lit, to individuals or institutions that have contributed to the preservation and appreciation of the bio-environment.

Furthermore, the B.I.O. has been actively promoting global cease-fire during the Olympic Games, as was the case in antiquity. The B.I.O. cease-fire proposal has been recently adopted as a resolution by the UNA of Sri Lanka.

UNITED NATIONS ASSOCIATION OF SRI LANKA

Resolution calling for the suspension of armed conflict both inter-state and civil during the International Olympic Games, once every four years and for a month thereafter.

The United Nations Association of Sri Lanka

AWARE of the practice in ancient Greece where all hostilities between city states were suspended during the period the Olympic Games were in progress

CONCERNED that the community of nations, while paying lip service to the Greek ideals engage in civil and inter-state conflicts with unprecedented loss of life and property

CONSCIOUS that there is an increasing body of world public opinion that sees a glaring contradiction between the ideals of sportsmanship and the dehumanising demands and consequences of all forms of modern warfare

CALLS UPON the International Olympic Committee, as the first step toward a globally operative cease-fire, to accept and implement the proposal made by the Biopolitics International Organisation of Athens, Greece that, commencing from the next Olympiad, all civil and inter-state conflicts be suspended during the period during which the games are in progress and for one month thereafter.

1.1 Jacques-Yves Cousteau - First Bios Prize Recipient

On the occasion of the 1996 summer Olympic Games, the *First Bios Prize Award* will be given to *Commander Jacques-Yves Cousteau*, who will not only be the first, but also, the only Bios Prize recipient for this century, emphasising his invaluable contribution to the comprehension and appreciation of the bio-environment. Commander Cousteau was the first to explore the limitless biodiversity of the planet's oceans and raise awareness of the most important task of protecting and preserving this biodiversity. He has worked

tirelessly to further the idea of protecting life on our planet and, through groundbreaking research, has continuously offered unique information on the intricacies and beauty of bios. As the century is drawing to a close, his achievements represent one of the most positive contributions to humanity. We are not only witnessing the turn of the century, but we are on the doorstep of a new millennium. By awarding the First Bios Prize to Commander Cousteau, the B.I.O. hopes to set the pace for a millennium of hope, understanding and harmonious co-existence of all forms of life.

1. BIO-EDUCATION FOR ALL **The Goal of Achieving Environmentally Literate Global Citizens**

It is crucial to establish a bio-environmental education that will cut through barriers and incorporate all academic fields, in co-operation with every sector of society. Critical thinking at all educational levels should be a top priority, in order to implement the necessary reforms and achieve the desired results. As part of ongoing efforts to raise awareness of the importance of protecting human and bios rights, it is necessary to unite the efforts of scientists, scholars, religious leaders, politicians, diplomats and business people, all over the world.

1. 1 International University for the Bio-Environment

It is reaffirmed that the bio-environment should be the first priority on educational curricula, and that environmental education activities have to be targeted towards all age groups. Within the framework of the B.I.O. and the International University for the Bio-Environment (I.U.B.E.), a Committee on Bio-Education and the Strategy of Biopolitics needs to be assembled. This Committee will be responsible for:

- implementing programmes on bio-education
- organising lectures, workshops and seminars, aimed at every educational level
- defining the basic core of educational curricula, and incorporating interdisciplinary elements into every educational programme. Environmental education will thus become the major link among all disciplines in all nations
- organising action oriented programmes with the intention of raising public awareness

In view of the great impact of the *Bio-Syllabus* (published in 1992) as a guideline for an integrated environmental education world-wide, it is important to expand existing topics, develop new ones and introduce practical approaches for hands-on training.

It is essential to apply innovative educational plans and tools, such as films, books, art projects, or computer games, aimed at every educational level. Educational programmes on the bio-environment, should be established on television and radio networks. These programmes should be broadcast via satellite throughout the world and ensure environmental education that will reach a global audience quickly and efficiently.

The B.I.O. should encourage key educational leaders around the world to undertake thorough reviews of their curricula, with a view to recommend scientific and acceptable

measures that would warrant multi-disciplinary and/or interdisciplinary approaches established at the core of all areas of specialisation.

An examination of existing materials and publications is required, in order to enhance the information-exchange service of the I.U.B.E. This includes establishing an exclusive library centre, to strengthen the technologies and capacities necessary to promote co-operation, research and information-sharing on environmental preservation.

A World Academic Board of Scientists needs to be established. Within the framework of the I.U.B.E., existing educational institutions are encouraged to create programmes for visiting professors, so that B.I.O. scholars can promote bio-environmental values.

The I.U.B.E. should maintain a continuous monitoring system to assess its objectives, in order to learn the extent of its successes and shortcomings in the direction of progressive growth and development. To promote international co-operation and the better understanding of cultural diversity, the I.U.B.E. should strive to collaborate with various international organisations. In order to ensure the satisfactory global circulation of socio-economic, cultural and demographic information for bio-environmental education, a permanent budgetary outlay must be provided annually by the B.I.O.

It is recommended that the I.U.B.E. develop model training courses on bio-ethics, bio-economy and bio-diplomacy aimed at different groups, such as children, students, and administrators. These courses should be internationally co-ordinated. An International B.I.O. certificate could be awarded for completion of such courses. The B.I.O. could co-operate closely with UNESCO to integrate bio-educational concepts in the IEEP (International Environmental Education Programme) of UNESCO - UNEP.

1.2 Bio-Diplomacy - Bio-Legislation

The B.I.O. should be actively involved in the study of the phenomena of war, peace, and conflict resolution. Within the framework of international co-operation for the protection and appreciation of bios, Biopolitics has been promoting the concept of bio-diplomacy. Bio-diplomacy recognises that cultural differentiation constitutes the wealth of the body of humanity. Furthermore, humanity is part of the overall body of bios, where DNA, the genetic code for every living organism, is the link connecting all forms of life. This unifying aspect is being promoted as the primary target for the implementation of international co-operation for the respect and maintenance of biodiversity.

- In the spirit of international co-operation, the B.I.O. should register with the United Nations.
- An international network of non-governmental organisations (NGO's) could be established, in order to monitor and enforce relevant treaties on the bio-environment.
- An International Board of Bio-Diplomats should be established. Workshops for bio-diplomats could be organised to negotiate strategies and alternatives for the preservation of the bio-environment.
- Special informational and financial support needs to be given to developing countries in order to promote clean technologies and avoid the risk of large-scale environmental catastrophe.

1.3 International and Domestic Law for the Protection of Bios Rights

The concepts of family, peace, education, culture and religion are promoted by the B.I.O. as essential societal values for the next millennium. In memory of Andrei Sakharov, one of the most ardent humanitarians of our time, we need to expound the fundamental human right of living in a clean environment. As a result, it is crucial to stress the importance of including bio-environmental protection in an overall framework of rights.

Limited work has been done on the relationship between bios rights and international humanitarian law. Bios rights could find essential protective provisions in the Geneva Law (and related protocols) and especially the proposed new Geneva Convention on the environment. Primary goals need to include:

- international agreements on the bio-environment, with precise and clear obligations to reach concerted global policies, imposed on states
- government recognition of the need to compromise sovereignty in order to maintain environmental protection. International law experts could be called upon to put pressure on governments to immediately implement international treaties relating to the bio-environment
- international collaboration in order to co-ordinate critical management and conservation issues, such as controlling water pollution, managing international oil transport and protecting endangered species
- mobilisation of UN agencies such as WHO, UNEP, UNDP, UNICEF to take more effective action towards protecting the interests of bios
- assisting the ICRC and the Red Cross in formulating new legislation to protect people and the bio-environment, especially in times of conflict
- address the subject of Evolutionary Ethics

1.4 Biocentric Models for the Next Millennium

In the current crucial period of transition, society needs to adopt new models, in order to avoid static and negative prototypes, and progress toward a global bio-culture. It is imperative to redefine existing concepts, and work towards converting the present anthropocentric society into a society that respects bio-diversity and is dedicated to the preservation and appreciation of bios. The participants of the International Sakharov Festival recommended that, in addition to its scheduled activities, the B.I.O. should also:

- list the greatest developmental and environmental failures of the century, drawing possible lessons for the future
- establish a permanent committee to build up guidelines for bio-development in the next millennium. This committee would also be responsible for defining legislative means aimed at promoting bios on a global scale
- formulate co-operative goals, strategies and action oriented programmes taking into consideration the developmental potential of every nation

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- foster planned goals through regional and international co-operation in the areas of capacity building, expansion of environmentally friendly technology and the exchange of environmental information. Partnerships based on mutual understanding, as well as respect and sharing of responsibilities are highly recommended
 - promote internationally accepted guidelines for biotechnological research and applications, based on bio-ethical principles, the respect for the bio-environment and the interdependence of living organisms. The Helsinki Convention could serve as a starting point
 - elaborate initiatives for the application of technologies resulting from research in biology
 - establish a small model city, where people would work and live according to bios-principles

1.5 Bio-Economics - Bio-Business

In western culture, profit is associated with economic activities resulting in increased income and financial prosperity. However, the concept of profit needs to be redefined, in order to include the principles of quality of life, preservation of natural resources as a measurable part of a nation's wealth, better health and the protection of bio-diversity, which constitute a "genuine" profit for society. Corporate leaders around the world need to realise that environmental protection can become a viable and successful business strategy, and should thus be incorporated into every dimension of their activities.

Environmental administration should be conducted in the spirit of co-existence. In order to overcome greed and over-consumerism, it is essential to move beyond the antagonisms of governments, nations and business, and adopt a common responsibility to preserve the environment for the future. The Sakharov Festival stresses the importance of:

- encouraging a greater contribution from international bodies and multinational corporations for the development of environmentally friendly technologies in emerging economies
- emphasising practical and measurable projects
- developing a pro-active and progressive environmental policy for business, and encouraging corporations to adhere to the principles of bios-supporting "sustainable development," in the spirit of proposals from organisations such as the International Chamber of Commerce

1.6 Media and Publications

In the quest for more efficient ways to promote bio-environmental education, mass media and the press can play a most valuable role. Moreover, computer networks and publications on B.I.O. activities can significantly improve the exchange of information on important bios issues. As a result, the following suggestions were put forward:

- publishing a peer-reviewed journal, themed *Bio-Politica*, in order to pioneer concepts

in Biopolitics and bio-policy

- regularly publishing a bulletin with information on all B.I.O. activities
- establishing Internet connections and other computer networks, and compiling an inventory of all international organisations and institutions with related goals
- filming and videotaping productions on Biopolitics and bio-environmental education
- directly publicising B.I.O. aims, actions and findings to the scientific community, among policy-making circles, and to the general public

2. GRASSROOTS OPERATIONS

Alternative, innovative, practical solutions for various problems, as well as methods for their implementation, need to be researched. What is required is not another institution, but rather a grassroots operation and a mechanism which will bring Biopolitics to more people and make its goals known throughout the world.

- Bio-Groups, responsible for carrying out this operation could be established worldwide. These groups would be active within local communities, and elicit the co-operation of children and senior citizens.
- Bio-Groups would be connected internationally via a bio-network. A periodic review of progress and updating of projects is anticipated.
- Proposals developed would become part of the B.I.O. Bank of Ideas project. A data bank on the bio-environment could be established by various professional organisations to provide qualitative and analytical references for decision-makers.

3. GENETIC BANKS AS A MEANS OF PROTECTING BIODIVERSITY

Protecting biodiversity at the macro and micro level is essential in order to ensure the continuation of life on our planet. Parks and protected areas have been used extensively for the protection of flora and fauna species, and the preservation of natural habitats and biotopes. However, this approach only guarantees protection of the macro-environment. The micro-environment, that of the gene and the cell, is still in danger.

- Biopolitics proposes the creation of Genetic Banks to secure conservation of the micro-environment. In order to be effective, these Genetic Banks need to be established locally and thus help preserve genetic diversity in endemic flora and fauna.
- The role of national parks and protected areas should be recognised as natural genetic banks preserving bio-diversity. The natural and cultural value of protected areas as learning environments for the process of bio-environmental education should be strengthened.
- Transboundary protected areas may become an effective starting point for the implementation of bio-diplomacy principles.
- The participants of the International Sakharov Festival express their support for the Planta Europa project aimed at conservation and the sustainable use of wild plant diversity in Europe.

4. RECOMMENDATIONS IN THE AREA OF FAMILY AND CHILDHOOD

- Reveal and explain the causal relationships of many dangerous illnesses, especially in children, as the result of failure to observe primary environmental rules.
- Co-operate with UNICEF in evaluating the losses suffered as a result of environmental abuse.
- Establish a publishing house for environmental literature, targeted at children, as well as adults.
- Create attractive logos and establish symbolic prizes for participation and outstanding results

5. SPECIFIC PROPOSALS

To help implement the aforementioned resolutions and recommendations, the International Sakharov Festival participants also made several practical suggestions and submitted specific proposals:

- starting at the CUB (City University Bratislava) a faculty for bio-diplomacy and the bio-environment
- establishing the Earth Science Museum of Moscow State University as a centre for environmental education
- establishing, in Krakow, a Biopolis-International Centre for Research, Training and Education, based on interdisciplinary case studies, land-problem solving, training, open universities, distance education and partnerships among experts, decision-makers, local societies, different professional groups, and NGO's. This centre must be sponsored by the I.U.B.E.
- scheduling special panel lectures for the general public during future conferences

5.1 Suggestions for the Promotion of B.I.O.

- combining the 50-year anniversary of the United Nations with the 10-year anniversary of the B.I.O. and using local United Nations Associations and other affiliated organisations to promote the B.I.O. ideas
- creating a B.I.O. membership organisation, the Club of Athens, to organise and coordinate efforts to exchange environmental information and promote a global culture, based on international co-operation in the third millennium
- devoting an international exhibition to the activities of B.I.O. and promoting biological and environmental education
- establishing a permanent B.I.O. forum
- registering B.I.O. associations, world-wide, in accordance with local law. Registration would enable them to get support from local authorities and reach more sponsors and potential members
- preparing short, multi-lingual booklets, focusing on B.I.O. activities and specifically aimed at those involved in global decision-making and policy-planning

**BIOPOLITICS THE BIO-ENVIRONMENT - VOLUME VI
DANUBE RIVER BONDS**

Proceedings from the Seventh B.I.O. International Conference, Bratislava, June, 1997

Bio-Philosophy

Greece: Biopolitics - the bio-environment – building a biocentric millennium society, Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation

Slovak Republic: Openness, partnerships, ethics and learning, *Jan Morovic*, President, City University Bratislava

Evolution of a River: History and Bio-Aesthetics

Ukraine: The stream of evolution and the evolution of a river, Dr. *Igor N. Malakhov*, Head of Council, National Ecological Centre

Poland: The symbolism of water: philosophical anthropology and aesthetics, Professor *Maria Golaszewska*, Jagiellonian University

Belarus: The Danube in Slavonic history, Dr. *Valery Evorovsky*, Research Fellow, Academy of Science

Russia: Settlement evolution in the Danube basin, Professor *Alexander Reteyum*, Moscow State University

Yugoslavia: Water resources and the development of human civilisation, Dr. *Zoran M. Radic*, Faculty of Civil Engineering, University of Belgrade

Slovak Republic: Communication: natural and cultural diversity in the Danube region, Dr. *Zlatica Plasienkova*, Department of Philosophy, Comenius University

Poland: Rivers versus towns: front or back orientation? Dr. *Wojciech Kosinski*, University of Krakow

Poland: Biodiversity and quality of life: an environmental aesthetics viewpoint, *Aleksandra Szewczyk*, Jagiellonian University

Bio-Ethics

Slovak Republic: Bioethics: a case for the future of man, Dr. *Jozef Glasa*, Bratislava Institute of Medical Ethics and Bioethics

Italy: The ethics of sustainability in the new Europe, Dr. *Matteo Mascia*, Projects Co-ordinator, Ethics and Environmental Policies, Fondazione Lanza

Italy: Bioethics and the environment: the Italian National Committee for Bioethics, Professor *Renzo Pegoraro*, General Secretary, Fondazione Lanza

Poland: New tasks and old thinking, Professor *Wieslaw Sztumski*, Head, Department of Philosophy of Natural Science, Institute of Philosophy, University of Silesia - Katowice

Poland: Biocentrism as a proposition for new thinking about the biosphere, Professor *Zdzislawa Piatek*, Jagiellonian University

Slovak Republic: The growing role of religion in environment, Dr. *Klaudius Vicenik*, Institute of Measurement Science, Slovak Academy of Sciences

Pollution Prevention Technology

Hungary: Reducing phosphorus in the Danube basin, Professor *Istvan Ijjas*, Department of

Water Resources Engineering, Budapest University of Technology

Yugoslavia: Eutrophication in the Yugoslav part of the Danube river, Dr. *Mileta Perisic*, Head, Group of Environmental Protection, Belgrade Geoinstitute

Bulgaria: Danube water quality along the Bulgarian stretch, Dr. *Cristina Mateva-Dontcheva*, EKOMAT Consulting Co., *Nikolaj Koumdjev*, Ministry of Environment, and *Vladimir Dontchev*, Ministry of Environment

Slovak Republic: Eutrophication in the Cunovo reservoir, *Jarmila Makovinska*, Water Research Institute

Ukraine: Water treatment technologies - the way for protection of the Danube river, Dr. *Gennady Kocherov*, Kiev State University

Yugoslavia: Science and technology: benefits and risks for the Danube river basin, Dr. *Ivana Djujic*, University of Belgrade, and Dr. *Borivoje Djujic*, University of Belgrade

Slovak Republic: Free radicals in biology and the environment, Professor *Alexander Tkac*, Institute of Physical Chemistry, Slovak technical University

Yugoslavia: Coastal pollution and groundwater quality in the Yugoslav part of the Danube, Dr. *Snezana Komatina*, Institute of Geophysics

Slovak Republic: Quality of surface waters. Stability in meadow ecosystems, Professor *Eduard Bublinc*, Director, Institute of Forest Ecology, Slovak Academy of Sciences, and Dr. *Margita Dubova*, Institute of Forest Ecology, Slovak Academy of Sciences

Biodiversity and Resource Conservation

Ukraine: Saving the biological resources of the Danube, Professor *Victor D. Romanenko*, Institute of Hydrobiology, National Academy of Sciences

Yugoslavia: Biodiversity in the Yugoslav sector of the Danube, Professor *Ivica Radovic*, Dean, Faculty of Biology, University of Belgrade, and Professor *Vladimir Stevanovic*, Faculty of Biology, University of Belgrade

Bulgaria: Biodiversity in the Bulgarian sector of the Danube, Professor *Svetoslav Gerasimov*, Institute of Ecology, Bulgarian Academy of Science, and *Ivan Yanchev*, Institute of Ecology, Bulgarian Academy of Science

Germany: The "Upper Danube" nature park, Dr. *Henry Dosedla*, Technical University of Coburg

Slovak Republic: Fish biodiversity of the Gabcikovo waterworks, *Anton Kirka*, Department of Government Commissioners

Forest Ecosystems, Agriculture and Soil Preservation

Slovak Republic: Danube forest ecosystems: biodiversity changes in the 20th century, Dr. *Július Oszlányi*, Institute of Landscape Ecology, Slovak Academy of Sciences

Slovak Republic: Danube floodplain forests, Dr. *Ferdinand Kubicek*, Institute of Landscape Ecology, Slovak Academy of Sciences

Slovak Republic: Restitution of floodplain forests. Synecological specificities, Professor *Ladislav Somsak*, Department of Soil Sciences, Comenius University

Lithuania: Functional assessment of forests as recreational resources, Professor *Edvardas Riepshas*, Lithuanian Agricultural University

Slovak Republic: The Soil Protection Working Group of the Danube countries, Dr.

Michal Dzatko, Soil Fertility Research Institute Bratislava

Slovak Republic: Rendering the Danube basin agricultural region more environmentally friendly, *Terezia Davidova*, Slovak Environmental Agency

Hungary: Bio-agriculture and nature conservation in Hungary, Dr. *Karoly Szoke*, Institute for Environment Management, Service for Nature Conservation, and Professor *Istvan Major* Institute for Environment Management, Service for Nature Conservation

Latvia: Organic farming in the Baltic countries: social aspects of development, Dr. *Aija Zobena*, Department of Soil Sciences, Latvia University of Agriculture

Germany: Agri-environmental policy in Germany, Dr. *Peter Weingarten*, Institute of Agricultural Development in Central and Eastern Europe (IAMO)

Waterways and Waterworks: International Co-operation and Conflict Resolution

Japan: Hydropolitics and conflict resolution, Professor *Masahiro Murakami*, Department of Infrastructure Systems Engineering, Kochi University of Technology

Slovak Republic: The Gabčíkovo-Nagymaros hydropower system and the Slovak Government, *Dominik Kocinger*, Plenipotentiary of the Government

Hungary: The Gabčíkovo-Nagymaros dam: social, political and cultural conflicts, Professor *Miklos Sukosd*, Department of Political Science, Central European University

Japan: Environmental management of transboundary freshwater bodies, Dr. *Juha I. Uitto*, Academic Officer, The United Nations University

Slovak Republic: Conflicts in water management, *Vladimir Holcik*, Chief Engineer of Operation and Maintenance for Gabčíkovo

Slovak Republic: Philosophy of river problems: local to regional – static to mobile, Dr. *Libor Jansky*, Comenius University

Bio-Diplomacy: New Profiles in Leadership and Democracy

Sweden: Water conflicts and bio-diplomacy, Ambassador *Kai Falkman*

Indonesia: ASEAN bio-diplomacy: a river in Southeast Asia, Ambassador *Irawan Abidin*, Ambassador of Indonesia to the Holy See

Greece: European integration perspectives for the Balkan countries, Ambassador *Panayotis Vlassopoulos*, Ambassador of Greece to the Federal Republic of Yugoslavia

Belgium: Co-operation for the expansion of the European Union, Ambassador *George Zavvos*, European Commission

Current Concepts in Water Management

Austria: The Danube Environmental Programme, Professor *Teun Botterweg* Team Leader, Danube Programme Co-ordination Unit, and Dr. *Jozef Turcan*, Technical Assistant, Danube Programme Co-ordination Unit

Slovak Republic: Implementing the Danube Environmental Programme in the Slovak Republic, *Ivan Zavadsky*, Director, Department of Environmental Protection, Ministry of Environment, and *Milan Matuska*, Director, Department of Water Protection, Ministry of Environment

Slovak Republic: Regional co-operation in the Danube river basin, Dr. *Pavel Petrovic*, Water Research Institute

Slovak Republic: Safety monitoring in Gabčíkovo, *Jan Hummel*, Deputy Director, Technical and Safety Inspection Committee for Gabčíkovo

Ukraine: Biopolitics problems of large-scale hydraulic engineering construction, Professor *Victor D. Romanenko*, Institute of Hydrobiology, Academy of Sciences

USA: Yangtze Three Gorges Dam. The modern Great Wall of China, Professor *Constantine Yapijakis*, Albert Nerken School of Engineering, The Cooper Union

Hungary: Environmentally-sound hydroelectric power plants, *Tibor Harosi*, Renewable Energy Club

Czech Republic: Integrated ecosystems: a recent strategy for water management, Dr. *Pavel Puncochar*, Director, T.G. Masaryk Water Institute

Moldova: Bio-policy in Moldova, Dr. *Vitalie Gulca*, Moldsilva State Association

Slovak Republic: Danube river bonds – past, present, future, *M. Ruzovic*, Ministry of Environment

Hungary: Autonomous environmental policy for the Carpathian basin: a theoretical approach, Professor *Gyula Bora*, The Budapest University of Economics

Russia: Water resources model: environmental management and future biopolitics, Professor *Alexander Shishkin*, Head, Ecological Standardisation Laboratory, St. Petersburg State Technological University for Plant Polymers

Bio-Economics

Greece: Commerce and biopolitics, *John Tzen*, Chairman, Hellenic Foreign Trade Board

Ukraine: Bio-business for the sake of prosperity: co-operation along the Danube, Dr. *Stanislav Sokolenko*, Chairman, Ukrimpex Joint Stock Company

Hungary: Systems analysis of bio-economy: entropy and negentropy in biopolitics, Academician *Laszlo Kapolyi*, President, System International Foundation

Bio-Education

Bulgaria: Bio-education and environmental literacy, *Roumenka Chapkanova*, Department of Chemistry, University of Sofia

Russia: Bio-education on the way to new thinking, *Olga Musikhina*, Director, Business Technical Assistance Center, Kuban State Technological University, and Professor *Anatoliy Shishatskiy*, Vice Director, Kuban State Technological University

Belarus: Interdisciplinary bio-education as a complex science in the next millennium, Professor *Alexander Lutsko*, Rector, International Sakharov College on Radioecology

Hungary: "Bring life back to the rivers" - prevention, education and international co-operation, *George J. Kollmann*, Legal Advisor

Yugoslavia: Bio-education is the key to survival, Dr. *Gordana Brun*, Advisor to the Minister, Ministry for Environmental Protection

Beyond the Concept of Sustainable Development

Turkey: The common heritage of mankind and the new concepts of responsibility, Professor *Rusen Keles*, Director of Environmental Studies, Faculty of Political Sciences, Ankara University

Poland: Quality of life: environmental and conservative interpretations, Dr. *Konrad*

Waloszczyk, Technical University of Lodz

Croatia: Humankind in nature and the limits of sustainable development, Dr. *Sanjin Dragojevic*, Ministry of Culture

Greece: Biopolitics versus sustainable development, Dr. *Christos Efthymiopoulos*, Physicist, Biopolitics International Organisation

Hungary: Strengthening the life supporting system of our planet and the role of the B.I.O., Professor *Mihaly Simai*, Member of the Hungarian Academy of Sciences and WFUNA Honorary President

Slovak Republic: The limits of sustainable development, Dr. *Juraj Hraško*, Member of the Slovak Academy of Sciences

RESOLUTIONS

Upon the conclusion of the B.I.O. International Conference *Danube River Bonds: Bio-Environment - Bio-Culture*, held in Bratislava, June 3-6, 1997, all participants expressed their complete and unanimous support of the conference goals and also:

- confirmed their dedication to the task of protecting the environment of the Danube, and implementing culture as a dominant factor in development models in their respective countries. Lessons can be drawn from history and culture in order to build a harmonious future, based on the transition towards a better understanding of bios (life) and the bio-environment.
- acknowledged that countries in transition must avoid engaging in mainstream development paradigms. New economic, societal and institutional models need to be adopted, in order to transcend beyond sustainable development and achieve progress where respect and appreciation of the environment will be at the core of every initiative.
- stressed the role of bio-diplomacy in preventing disagreements from turning into conflicts. Mutual understanding and co-operation among all interested parties should be promoted through communication and dialogue, based on plurality. Active co-operation between scientists/academics and diplomats is needed in order to establish a factual basis and create a common understanding of collective concerns. NGO's and academic institutions play an important role in raising public awareness and in mobilising support for change. Bio-diplomacy can be enhanced by the creation of partnerships between governmental and non-governmental organisations, as well as by civic initiatives involving different countries of the Danube region.
- pointed out that the Danube, viewed as a case study for the implementation of environmentally-friendly initiatives, represents a challenge for education. Reforms in education must incorporate awareness and knowledge of environmental, as well as historical and cultural elements, associated with the river and the riparian region.
- emphasised that trade, as well as tourism and transport, can be perfectly compatible with bio-policy - the protection of the bio-environment. The conference stressed the importance of drawing lessons from the 140 years of experience with such activities in the Danube region, in order to build successful models for the future.

In view of the need to overcome the acute economic and environmental problems faced by the majority of the countries traversed by the Danube, the conference participants also made the following recommendations:

- increasing, in all countries, support for multidisciplinary research activities in Biopolitics. A step in this direction is the introduction of a biocentric curriculum at all levels of education.
- improving the exchange of information, on the environmental condition of the Danube and on the activities held within the framework of various governmental or non-governmental organisations, among Danube States.
- developing a clearly defined pollution-prevention policy to protect the Danube, and especially those sections suffering severe environmental deterioration, based on the use of environmentally-friendly technologies and the evaluation of the all attributes potentially present in the environment.
- establishing a *Danube Environmental Forum* for the development of alternative programmes, the introduction of new technologies, the implementation of pilot projects and the setting up of transboundary environmental action plans.
- implementing systematic changes in all agricultural practices, in order to decrease the negative input to nature, and especially to water resources, and to implement sustainable agricultural policies.
- preserving the biodiversity of the protected regions and flood-zones, falling under the IUCN categories.

**BIOPOLITICS - THE BIO-ENVIRONMENT - VOLUME VII
THE BUDAPEST SESSIONS**

Proceedings from the Eighth B.I.O. International Conference, Budapest, September 1998

International University for the Bio-Environment - A Vehicle for Peace

Greece: Biopolitics - Bio-Culture: A New Renaissance, Dr. Agni Vlavianos-Arvanitis, President and Founder, Biopolitics International Organisation

Hungary: Educational Reforms: the International University for the Bio-Environment, Academician *Laszlo Kapolyi*, President, System International Foundation, Co-Chair

Bio-Ethics

Russia: Christian Ethics and Bios, H.E. Archimandrite *Feofan*, Vice-Chairman, Department for External Church Relations, Moscow Patriarchate

Yugoslavia: Ecological Crisis Challenge and the Need for Supranational Scientific Co-operation, Professor *Dusan Kanazir*, f. President, Serbian Academy of Arts and Sciences

The Netherlands: Chaos in the Environment: a Reflection of the Disorder in our "Invironment," *Fred Matser*, Founder, The Fred Foundation

Turkey: Biocentric Ethics and its Relevance to the Goals of Biopolitics Education, Professor *Rusen Keles*, Faculty of Political Science, Ankara University

Globalisation Based on Biocentric Values

Singapore: Globalisation Implications for Environmental Protection, Professor *Seong Chee Tham*, Department of Malay Studies, The National University of Singapore

Germany and USA: Pleading for a World Environment and Development Organisation, Dr. *Frank Biermann*, Kennedy School of Government, Harvard University, USA and Professor *Udo Simonis*, Science Center Berlin

Bio-Economics

Greece: Environmental Economics: Empirical Approaches, Regulations and Policy, Dr. *Michael E. Mitsopoulos*, Economist

Hungary: Environmental Impact Assessment: a Tool for Sustainable Development, Professor *Akos Redey*, Vice-Rector for Scientific and Foreign Affairs, University of Veszprem, and Professor *Istvan Kiss*, Head of the Department of Zoology, University of Veszprem

Yugoslavia: Economics versus Environment. True or False Dichotomy? *Valentina Mileusnic Vucic*, Advisor to the Minister of Environmental Protection, Republic of Serbia

Greece: Bio-Financing - Bank Financing for the Bio-Environment, *Constantine N. Kanonis*, Alternate General Manager, Commercial Bank of Greece

Ukraine: Civilised Entrepreneurship and Harmonisation with the Environment, Dr. *Stanislav Sokolenko*, Chairman of the Board, Ukrimpex Joint Stock Company

Czech Republic: Ukraine From a "Socialistic" to a Consumer Society, Dr. *Jaroslav Stoklasa*, f. Adviser to the Minister of Environmental Protection

Bio-Legislation

Greece: International Environmental Law, *Fotis A. Karayiannopoulos*, Barrister, Member of the Board of Appeals of the Community Plant Variety Office

Bio-Education

Russia: Economic and Legislative Biopolitics Regulations for Environmental Education, Professor *Alexander I. Shishkin*, Head, Ecological Standardisation Laboratory, St. Petersburg State Technological University for Plant Polymers

Hungary: Agricultural Higher Education in the Development of a Biocentric Society, Professor *Laszlo Vermes*, University of Horticulture and Food Industry, Budapest

Yugoslavia: Environmental Education, Biological Resources and Development, Professor *Ivica T. Radovic*, Faculty of Biology, University of Belgrade

Hungary: BINET 2000: a Network for Education and Training, Professor *Attila Szabo*, Institute of Biology, University of Veszprem

Bio-Diplomacy - Vision for the Millennium

Sweden: A Bios Perspective for the Restoration of the Silk Road, Ambassador *Kai Falkman*, Ministry of Foreign Affairs

UK: Paths to a Positive Future and Projects of Hope: Building a World that Works, *Jakob von Uexkull*, Founder and Chairman, The Right Livelihood Foundation

USA: The Year 2000 Problem: the First Biopolitical Crisis of a New Era, *John L.*

Petersen, President, The Arlington Institute

Bio-Philosophy

Turkey: Nature and Value. Some Historical and Contemporary Reflections, Dr. *Geoff S. Bowe*, Instructor, Faculty of Humanities and Letters, Bilkent University

BIOPOLITICS - THE BIO-ENVIRONMENT - BIOS OLYMPIAD

International Conference in Ancient Olympia, Greece, August 1999

Cultural Olympiads - Biopolitics - the bio-environment - the diachronic presence of Greece Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation, Greece

The all-encompassing values of the Olympic Ideal *Thoucidides Cosmopoulos*, Deputy Mayor of Ancient Olympia, Greece

Biopolitics - a culture of peace *Anna Karamanou*, Member of the European Parliament, Greece

Cultural advancement and the value of Hellenism *Vassilis Korkolipoulos*, Member of Parliament, Greece

Globalisation with a human face *Anastos Dimitropoulos*, Attorney at Law, Greece

Expressing the Olympic Idea through Biopolitics *Dimitrios Makrides*, President, Olympic Idea Association, Greece

God, Creator of all, and human behaviour towards Creation H.E. the Metropolitan of *Elia Germanos*, Greece

Cultural Olympiads, peace and human rights Professor *John Panoussis*, f. Rector, University of Thrace, Greece

The cultural and philosophical contribution of Ancient Elis and Olympia Professor *Nicholas Yialouris*, f. Director General of Antiquities, Greece

Biopolitics and Ancient Pylos Professor *Andreas Panagopoulos*, University of Patras, Greece

Cosmological prototypes in pre-Socratic philosophy Dr. *Constantina Palamiotou-Thomaidou*, Department of Philosophy, University of Athens, Greece

European environmental legislation *George Kremlis*, Head of Judicial and Legislative Affairs, Community Law, European Commission, DG XI, Belgium

Globalisation, culture and the environment *Vassilis Kafiris*, President, FilmNet, Greece

Bio-culture and the Bios-Olympiad *Belisario Capocci*, President, Italian Chamber of Commerce, Greece

Bio-culture and bio-commerce *John Tzen*, Minister Plenipotentiary of Economic and Commercial Affairs, Greek Embassy in Belgrade, Yugoslavia

Biopolitics and the assessment of tradition *Nicholas T. Douros*, President of the Achaia Chamber of Commerce, Greece

Human rights in the third millennium - biomedical innovation Professor *Stamatis Alahiotis*, Rector, University of Patras, Greece

Environment and energy technology *Constantine T. Mountzouridis*, President National

Research Center, Greece

Assessment of the present attitude towards life and the ecological equilibrium Dr. Emmanouel Badouvas, Professor of Surgery, University of Athens, Greece

The Olympic Idea and the Greek Diaspora Adreas Zaimis, f. General Secretary of Greeks Abroad, Greece

The World Federation of Elians George Tsimbris, Naval Officer, President of the World Federation of Elians, Greece

Olympic and athletic education Anthony Tzikas, President, Foundation for Olympic and Athletic Education, Greece

Regional and local co-operation in education and bio-culture Professor Azra Jaganjac, Federal Ministry of Education, Science, Culture and Sport, Bosnia-Herzegovina

Youth Bios Olympiads Professor Alexander Shishkin, St. Petersburg State Technological University for Plant Polymers, Russia

International co-operation and the bio-environment - the example of south-east Asia Ambassador Irawan Abidin, Ambassador of the Republic of Indonesia to the Holy See

Colombia and the mythology of nature Ambassador Manuel Jose Bonnet, Ambassador of Colombia to Greece

Protecting the world's natural and cultural heritage Ambassador Milan Dubcek, Ambassador of the Slovak Republic to Greece

Bio-diplomacy and the Olympic Spirit Ambassador Yuriy Sergeyev, Ambassador of Ukraine to Greece

Bio-diplomacy and peaceful conflict resolution Ambassador Panayiotis Economou, f. General Secretary, Ministry of Foreign Affairs, Greece

Bio-diplomacy and peace Ambassador David Jacobs, Ambassador of South Africa to Greece

**BIO-ENVIRONMENT & NEW MILLENNIUM
EUROPEAN UNION LEONARDO DA VINCI PROGRAMME**

Environmental Education Workshop, Athens, March 2001

Expanding the vision of bio-environmental education: Biocentric ethics and culture Dr. Agni Vlavianos-Arvanitis, B.I.O. President and Founder, Greece

The shift of a paradigm: From "environmental education" to "bio-education" Professor Alfred Rest, Senior Academic Counsellor, Institute for International Public Law and Comparative Public Law, University of Cologne, Germany

New trends in education for energy and the environment Professor Nicholas Hatziargyriou, Energy Systems National Technical University of Athens, Greece

Environmental problems as a cultural challenge Vassilis Dikaioulakos, Scientific Associate Energy Centre of the Peloponnese, Greece

Social and cultural environmental education Professor Sofia Dascalopoulos, Head, Department of Social Anthropology, Dean, School of Social Sciences, University of the Aegean, Greece

The importance of pluriculturalism in environmental education Professor *Nicolas Vernicos*, University of the Aegean, Greece

Environmental education curriculum development Professor *Constantina Skanavi*, Alternate Professor of Environmental Education and Communications, Environmental Department, University of the Aegean, Greece

Regional curriculum development *John Stylianakis*, Regional Director for Environmental Education, Crete, Greece

International co-operation in curriculum development Professor *Hunay Evliya*, Director of Environmental Studies, Cukurova University, Adana, Turkey

Environmental ethics - a matter pending in European curricula Professor *Marta Salona-Bordas*, Department of Zoology, Universidad del Pais Vasco, Spain

Environmental education as moral education: relation between natural and social nature Professor *Michael Opielka*, Director, Institute of Social Ecology, Germany

RECOMMENDATION

In view of the urgent need to counter the crisis in values that has resulted in serious environmental threats and to assure the continuity and appreciation of bios - *life* - on our planet, the participants of the B.I.O. Workshop on Environmental Education, who convened in Athens on March 29 – April 1, 2001, reiterate the B.I.O. proposals for an all-encompassing environmental education and, being encouraged by the progress resulting from the expansion of the sustainability concept promoted by the UN, its special Organisations and numerous NGOs, recommend the implementation of the following issues of highest priority:

Building new ethics through environmental education

- Environmental ethics should be at the core of every human endeavour. The involvement of every individual and sector of society and the co-operation of culture and technology are vital in this context.
- There is need for a holistic interdisciplinary approach in curriculum planning and design. This is indispensable in order to integrate social, cultural and environmental aspects and, in particular, values and ethics.
- Environmental rules and principles should be incorporated in obligatory codes of conduct for representatives of public authorities, diplomats and businesses.
- It is crucial to stress the positive relationship between environmental ethics and the notions of peace, poverty alleviation, and equity in society.
- Environmentally ethical behaviour implies individual responsibility that leads to action. Lifestyle patterns should become disengaged from over-consumerism. Waste-free production cycles and new strategies for energy production and consumption and for the protection of non-renewable natural resources are essential.
- To avoid further degradation and catastrophe, the concept of defence has to be restructured on the basis of environmental ethics and with a long-term vision of international co-operation in environmental protection.

Investing in environmental education: a genuine profit for society

- The concept of profit needs to be redefined to include the dimensions of quality of life, preservation of natural resources and biodiversity, better health and education, elements which constitute a "genuine" profit for humanity.
- Governments and international, regional and national financial institutions as well as the productive sector should be encouraged to mobilise additional resources and increase investments in education and public awareness.
- An independent fund for environmental education needs to be considered. This fund would encourage contributions from the public at large, from business and from governments. It would give high visibility to these issues.
- Investment is a crucial means for capitalising on the full force of education. Environmental education can shape the profit-seeking sector positively.

Reorientation of formal and non-formal education towards sustainability

- There is need to reorient education towards lifelong learning. As promoted by the I.U.B.E., an interdisciplinary environmental education which guarantees environmental literacy for every citizen on the planet is a priority.
- Non-formal education is as important as formal education. There is a need to capture the widespread attention of the general public and actively involve the local administration (municipal authorities, etc.) in environmental awareness and training.
- Environmental education in vocational training is indispensable not only for the transfer of new skills but also for the enhancement of employment opportunities.
- Environmental education is needed in business and economics, policy and decision-making, science and technology, and in the fields of legislation and jurisdiction.
- A two-way link between teachers and scholars/students, needs to be created. Learners should be given the opportunity to acquire new knowledge and skills through concrete projects and to develop their own ideas and problem-solving initiative.
- Participatory environmental education can act as a catalyst for participatory democracy.

Proposals for implementation

- Revision and expansion of the existing *Bio-Syllabus* and development of new curriculum materials for all educational levels as well as audio-visual materials on environmental issues.
- New economic models and incentives (tax cuts, etc.) promoting investments in Cleaner Production strategies.
- A *Green Salary* instead of unemployment benefits, in order for the unemployed to get involved in environmental projects (tree-planting, recycling, city cleanup, etc.).
- A *clearing-house* to provide through the use of computer link-ups a network of people wishing to co-operate in environmental education. An electronic *Bank of Ideas* to be available on the Internet can promote a world-wide interdisciplinary exchange of information and encourage environmental appreciation.
- *Volunteer environmental action groups* to tackle local issues. The participation of

youth and senior citizens is particularly valuable.

- *Environmental Olympics* and *Bios Prizes* to award individuals or institutions that have contributed to the preservation and better understanding of the environment.
- *A World Referendum* for people throughout the world express their willingness to preserve the environment and the continuity of life on our planet.
- Environmental education can enhance the development of an *International Court of the Environment* under the auspices of the *Permanent Court of Arbitration*.

BUSINESS

BUSINESS STRATEGY FOR THE BIO-ENVIRONMENT - VOL. I (Greek)

First B.I.O. Business Conference, Athens, November 1992

Biopolitics - Bio-Economics Dr. Agni Vlavianos-Arvanitis, President and Founder of the Biopolitics International Organisation

The Bio-Environment and Development George Gennimatas, f. Cabinet Member

Hellenic Industry and the Bio-Environment Iason Stratos, President, Union of Greek Industries

Business and the Bio-Environment Sokratis Kokkalis, President, INTRACOM S.A.

Chemical Industry and the Bio-Environment, Stathis Asvestis, f. President, Dow Hellas S.A.

Environmental Policy in the Chemical Industry Bob Donaldson, Director of Plant Operations, ICI Hellas S.A.

Greek Corporate Environmental policy - A Statistical Approach Dimitris Maniatakis, General Manager, ICAP S.A.

The Changing Role of the World Bank in the Protection of the Bio-Environment Dr. Julia Panourgia-Clones, Environmental Advisor, The World Bank, Washington DC

Cleaner Production - Preservation of the Bio-Environment - Increased Profit Donald Huisingh, Erasmus Centre of Environmental Studies

Pollution Preservation and Rational Management, Professor Constantine Yapijakis, Alpert Nerken School of Engineering, Cooper Union, New York

The Bio-Environment and Economic Reforms Professor Udo Simonis, Science Centre Berlin

BUSINESS STRATEGY FOR THE BIO-ENVIRONMENT - VOL. II (Greek)

Second B.I.O. Business Conference, Athens, December 1993

Biopolitics: A Shift from Anthropocentric to Biocentric Values in Business Dr. Agni Vlavianos-Arvanitis, President and Founder of the Biopolitics International Organisation

Business Strategy for the Protection of the Bio-Environment George Papandreou, Deputy Minister of Foreign Affairs

Policy of the United States Environmental Protection Agency Dr. Bradley Smith, Director of Environmental Education, United States Environmental Protection Agency

Structural Economic Change and the Bio-Environment Professor *Udo E. Simonis*, Science Center Berlin

European Environmental Policy - Legislative and Economic Framework *Scott W. Blackmer*, Partner, Wilmer, Cutler & Pickering

Cleaner Production - Preventing Pollution at Source Professor *Donald Huisingsh*, Erasmus Center for Environmental Studies

Prevention - Green Chain of Production Professor *Constantinos Yapijakis*, Cooper Union School of Engineering, New York

Business Strategy for the Environment *Iason Stratos*, President, Union of Greek Industries

Bio-Environment and Business Adaptation *Dimitris Maniatakis*, Managing Director, ICAP Hellas S.A.

Investing in Survival *Asimakis Fotilas* Director of Investments Promotion, United Nations Industrial Development Organization (UNIDO)

Bio-Environment - Governmental and Entrepreneurial Planning *Nikos Skoulas*, Consultant to the Food Industry, Former Minister of Tourism

Reality and Prospects in Greek Industry *Dr. A. Paraskevopoulos*, Environmental Consultant

Environmental Dimensions of Economic Education *Dr. Stephen Buckles* President, Economics America, National Council on Economic Education

Environmental Leadership - The Management of Change *Karl Kummer*, Environmental Director, Rank Xerox Ltd

Dow - Responsible Care for the Environment *Dr. Constantine Masmanidis*, General Manager, Dow Hellas S.A.

Business and Environmental Protection *Dr. Christos Tsilyiannis*, Technical Manager, Waste Management Greece S.A.

Manufacturers and Prevention Policy *Jared O. Blum*, President, Polyisocyanurate Insulation Manufacturers' Association

S.C. Johnson and the Bio-Environment *Michael Pagidas*, General Manager, S.C. Johnson and Son Hellas Ltd.

Prevention of Pollution at Source - Environment and the Consumer *Polychronis Polychroniadis*, General Manager, PERAN Environment and Development S.A. and ELAN Hellenic Developments S.A.

Resource Conservation and Recovery - Action Against Over-Consumerism, Pollution and Poverty *J. Patrick Nicholson*, Chairman and CEO, N-Viro Energy Systems Ltd. United States Representative at the Rio Conference

Proposal on a New Dimension of Profit *John Boutaris*, President, I. Boutaris & Son S.A.

**BUSINESS STRATEGY FOR THE BIO-ENVIRONMENT - VOL. III (Greek)
"PROFIT AND THE BIO-ENVIRONMENT"**

Fourth B.I.O. Business Conference, Athens, October 1995

The Bio-Environment and New Models for the Future

Greece: Biopolitics - A New Dimension of the Concept of Profit, *Dr. Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation; International

Co-operation on the Bio-Environment - Address from the Minister of Foreign Affairs Carolos Papoulias, Ambassador *Ioannis Beveratos*, Director of Cultural Affairs, Ministry of Foreign Affairs; The Environment in Every Social, National and Private Initiative, Professor *John Pasmazoglou*, President, Academy of Athens; Investing in the Protection of the Environment, *John Papathanasiou*, President, Athens Chamber of Commerce and Industry
Sweden: Bio-Diplomacy and the Struggle for Economic Power, Ambassador *Kai Falkman*, Ministry of Foreign Affairs

Colombia: Bio-Tropics and the Future of Humankind, Professor *Mario Calderon Rivera*, Santillana Foundation for Latin America

Ukraine: Biopolitics and the Future of the Human Race, *Volodymyr Aleksyeyev*, Vice-Chairman, Committee for Legislative Provision of Freedom of Speech and Mass Media, Supreme Rada (Parliament)

Biocentric Values and the Ethics of Economic Policy

Greece: Profit, Ethics and the Bio-Environment, *Kitty P. Kyriacopoulos*, Chairman of the Board, Bauxites Parnasse Mining Co.

Republic of Serbia: The Rush for Profit and the Ethics of Survival, Professor *Dusan Kanazir*, f. President. Serbian Academy of Sciences and Arts

USA: Reconciling Profit with Biodiversity. An Inventory of Resources Ready to Hand Professor *Max Oelschlaeger*, Department of Philosophy, University of North Texas

Finance and the Bio-Environment

Greece: The Bio-Environment in Financial Policy, *Panayiotis Poulis*, President, Commercial Bank of Greece

USA: "Greening" of the Private Sector and Partnerships with NGO's: The Social Dimensions of Business Strategies, Dr. *Julia Panourgia-Clones*, The World Bank

Bio-Policy and Environmental Regulation

USA: There does not have to be an OR in the phrase "Environment or the Economy." Professor *Bradley Smith*, Dean, Huxley College of Environmental Studies, Western Washington University

Turkey: An Attempt to Redefine Public Interest and the Bio-Environment, Professor *Rusen Keles*, Director of Environmental Studies, Faculty of Political Science, Ankara University

Hungary: Profit and Sustainable Development, Professor *Gyula Bora*, Vice-Rector, Budapest University of Economic Sciences

Slovak Republic: Profit and the Bio-Environment - Education, Dr. *Jan Morovic*, President, City University Bratislava

Belgium: European Union: A New Economic Development Model, *George Strongylis*, Commission of the European Union, Directorate DG XI

Regional Issues

Republic of Serbia: The Role of Science in the Development of the Republic of Serbia: Business Interest and Environmental Protection, Professor *Slobodan Unkovic*, Vice-President of the Government of the Republic of Serbia, Minister of Science and Technology

Russia: Humanitarian Education at Technical Universities in Russia, Professor *Pavel*

Sarkisov, Rector, and Dr. *Oleg Altakh*, International Department Director, Mendeleyev University of Chemical Technology; The Development of Profitable Technologies in the Context of Bios, *Valery V. Grishin*, Deputy Directorate Chief, Head of Press-Service, Directorate of Government Information, Administration of the Government

Ukraine: Ukraine and Biopolitics, *Zoya Sharikova*, Senior Consultant, Committee for Legislative Provision of Freedom of Speech and Mass Media, Supreme Rada (Parliament); Chernobyl: An Update, *Elena Kutova*, Head, Department of Product Amalgamation, Chernobyl Nuclear Power Station

Hungary: Socio-Economic Changes in Central-Eastern Europe: Challenges for Biopolitics, Dr. *Laszlo Kapolyi*, President, System International Foundation

Legal Framework

USA: Global Charter - Making Sustainability a Legal Requirement "The Constitution of the World," Dr. *Martin Alpert*, Chairman and CEO, Click Technologies Inc.

Business Strategy for the Bio-Environment

USA: The Corporate Role in Protecting Health, Safety and the Environment, Professor *Nicholas Ashford*, Technology and Policy, MIT; The Myth of "Jobs Versus the Environment," Professor *Constantine Yapijakis*, The Cooper Union

Switzerland: Management Tools for Monitoring Environmental Progress, Dr. *Peter Kalantzis*, President, LONZA Ltd.

Greece: Environmental Business Policy, *Dimitris Maniatakis*, Managing Director, ICAP S.A.; The Zeneca Group Safety, Health and Environment Management System, *Dimitris Randopoulos*, Managing Director, Zeneca Hellas S.A.; Waste Water Treatment in Soft Drink Plants, *Christos Komninos*, General Manager, Hellenic Bottling Company; The Bio-Dimension of Profit, *Basil Kapsokavadis*, Managing Director, Gerling-Konzern Hellas GmbH; A Biocentric Sense of the Cost-Benefit Principle, Professor *Basil Papadias*, Electrical Energy Systems, National Technical University of Athens

Russia: Strategy for Developing of a Global Energy System: Protecting the Bio-Environment through Profitable Technologies, *Boris Landa*, Alphabet Company

Germany: Steps Towards a Global Environmental Policy, Professor *Udo Simonis*, Science Centre Berlin

BUSINESS STRATEGY FOR THE BIO-ENVIRONMENT - VOL. I (English)

Second B.I.O. Business Conference, Athens, December 1993

Biopolitics: A Shift from Anthropocentric to Biocentric Values in Business Dr. *Agni Vlavianos-Arvanitis*, President and Founder of the Biopolitics International Organisation

Business Strategy for the Protection of the Bio-Environment *George Papandreou*, Deputy Minister of Foreign Affairs

Policy of the United States Environmental Protection Agency Dr. *Bradley Smith*, Director of Environmental Education, United States Environmental Protection Agency

Structural Economic Change and the Bio-Environment Professor *Udo E. Simonis*, Science Center Berlin

European Environmental Policy - Legislative and Economic Framework *Scott W.*

Blackmer, Partner, Wilmer, Cutler & Pickering

Cleaner Production - Preventing Pollution at Source Professor *Donald Huisingh*, Erasmus Center for Environmental Studies

Prevention - Green Chain of Production Professor *Constantinos Yapijakis*, Cooper Union School of Engineering, New York

Business Strategy for the Bio-Environment *Iason Stratos*, President of the Union of Greek Industries

Bio-Environment and Business Adaptation *Dimitris Maniatakis*, Managing Director, ICAP Hellas S.A.

Investing in Survival *Asimakis Fotilas* Director of Investments Promotion, United Nations Industrial Development Organization (UNIDO)

Bio-Environment - Governmental and and Entrepreneurial Planning *Nikos Skoulas*, Consultant to the Food Industry, Former Minister of Tourism

Reality and Prospects in Greek Industry Dr. *Alexis Paraskevopoulos*, Envir. Consultant

Environmental Dimensions of Economic Education Dr. *Stephen Buckles* President, Economics America, National Council on Economic Education

Environmental Leadership - The Management of Change *Karl Kummer*, Environmental Director, Rank Xerox Ltd

Dow - Responsible Care for the Environment Dr. *Constantinos Masmanidis*, General Manager, Dow Hellas S.A.

Business and Environmental Protection Dr. *Christos Tsilyiannis*, Technical Manager, Waste Management Greece S.A.

Manufacturers and Prevention Policy *Jared O. Blum*, President, Polyisocyanurate Insulation Manufacturers' Association

S.C. Johnson and the Bio-Environment *Michael Pagidas*, General Manager, S.C. Johnson and Son Hellas Ltd.

Prevention of Pollution at Source - Environment and the Consumer *Polychronis Polychroniadis*, General Manager, PERAN Environment and Development S.A. and ELAN Hellenic Developments S.A.

Resource Conservation and Recovery - Action Against Over-Consumerism, Pollution and Poverty *J. Patrick Nicholson*, Chairman and CEO, N-Viro Energy Systems Ltd. United States Representative at the Rio Conference

Proposal on a New Dimension of Profit *John Boutaris*, President, I. Boutaris & Son S.A.

BUSINESS STRATEGY FOR THE BIO-ENVIRONMENT - VOL. II (English)

Third B.I.O. Business Conference, New York, February 1995

Biopolitics - The Bio-Environment - Bio-Culture and Business Opportunities Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation

The Third Eye of Industrial Ecology *Carl Henn*, Senior Vice-President, Concord Energy

Business Strategy for the Bio-Environment - The Technical Policy Professor *Constantine Yapijakis*, Albert Nerken School of Engineering, Cooper Union, New York

The Changing Role of the World Bank and the Bio-Environment Dr. *Julia Panourgia-*

Clones, The World Bank

Creating Value for and from the Environment: The Arm and Hammer 6 P's Model

Bryan Thomlison, Director, Public Affairs and Environmental Management, Church & Dwight Co., Inc.

ITT Mission, Principles and Practices *Usha Wright*, Vice President and Director, Environment Health and Safety, ITT Corporation

Xerox Corporation Environmental Strategy *James McKenzie*, Director, Environment, Health and Safety, Xerox Corporation

Resource Conservation and Utilization - A Magnificent Opportunity *Patrick Nicholson* Chairman and CEO, N-Viro International Corporation

**BUSINESS STRATEGY FOR THE BIO-ENVIRONMENT - VOL. III (English)
"PROFIT AND THE BIO-ENVIRONMENT"**

Fourth B.I.O. Business Conference, Athens, October 1995

The Bio-Environment and New Models for the Future

Greece: Biopolitics - A New Dimension of the Concept of Profit, Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation; International Co-operation on the Bio-Environment - Address from the Minister of Foreign Affairs *Carolos Papoulias*, Ambassador *Ioannis Beveratos*, Director of Cultural Affairs, Ministry of Foreign Affairs; The Environment in Every Social, National and Private Initiative, Professor *John Pasmazoglou*, President, Academy of Athens; Investing in the Protection of the Environment, *John Papathanasiou*, President, Athens Chamber of Commerce and Industry

Sweden: Bio-Diplomacy and the Struggle for Economic Power, Ambassador *Kai Falkman*, Ministry of Foreign Affairs

Colombia: Bio-Tropics and the Future of Humankind, Professor *Mario Calderon Rivera*, Santillana Foundation for Latin America

Ukraine: Biopolitics and the Future of the Human Race, *Volodymyr Aleksyeyev*, Vice-Chairman, Committee for Legislative Provision of Freedom of Speech and Mass Media, Supreme Rada (Parliament)

Biocentric Values and the Ethics of Economic Policy

Greece: Profit, Ethics and the Bio-Environment, *Kitty P. Kyriacopoulos*, Chairman of the Board, Bauxites Parnasse Mining Co.

Republic of Serbia: The Rush for Profit and the Ethics of Survival, Professor *Dusan Kanazir*, f. President. Serbian Academy of Sciences and Arts

USA: Reconciling Profit with Biodiversity. An Inventory of Resources Ready to Hand Professor *Max Oelschlaeger*, Department of Philosophy, University of North Texas

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Greece: Environmental Business Policy, *Dimitris Maniatakis*, Managing Director, ICAP S.A.; The Zeneca Group Safety, Health and Environment Management System, *Dimitris*

Randopoulos, Managing Director, Zeneca Hellas S.A.; Waste Water Treatment in Soft Drink Plants, *Christos Komninos*, General Manager, Hellenic Bottling Company; The Bio-Dimension of Profit, *Basil Kapsokavadis*, Managing Director, Gerling-Konzern Hellas GmbH; A Biocentric Sense of the Cost-Benefit Principle, Professor *Basil Papadias*, Electrical Energy Systems, National Technical University of Athens

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Germany: Steps Towards a Global Environmental Policy, Professor *Udo Simonis*, Science Centre Berlin

BIO-ENVIRONMENT - A NEW RENAISSANCE IN BUSINESS

*Business Conference in co-operation with the Italian Chamber of Commerce
Athens, January 2000*

Alternative Energy Sources Prof. *Basil Papadias*, National Technical University of Athens - Prof. *Nicholas Hatzargyriou*, National Technical University of Athens - Prof. *Rigas Rigopoulos*, University of Patras - *Constantine Stambolis*, Publisher "Energy" Magazine

Shipping and Marine Protection *Dimitris Mitsatos*, General Director, HELMEPA - *George Spanos*, Director, Spanos Maritime & Trading Ltd.

Finance and Development *Constantine Ploumitsakos*, Environmental Protection Engineering S.A. - *Constantine Kanonis*, Chairman, Hellenic-Russian Chamber of Commerce - Dr. *Evangelos Tziavos*, Chairman, Hellenic-Slovenian Chamber of Commerce

Communications and the Media in the 21st Century *Athanassios Papandropoulos*, International President, Union of European Journalists - *Nancy Biska*, Journalist, ANT1 - Dr. *Dionyssia Hatzilakou*, "Georama" Magazine - *Antonis Heimonas*, Media Director

Diachronic Issues Professor *Stephanos Geroulanos*, University of Ioannina

EU Programmes *Michael Aggelopoulos*, European Commission - Dr. *Natassa Balasca*, Action Synergy S.A. - *George Diamantis*, Managing Director, Action Synergy S.A.

Environmental Legislation and Quality of Life *Michael Dekleris*, Hon. Vice President, Council of State - *John Michael*, Assistant Ombudsman - *Fotis Karayiannopoulos*, Attorney at Law - Dr. *John Sarmas*, Counsellor, National Court of Audits - Dr. *Agni Vlavianos-Arvanitis*, B.I.O. President and Founder

DIPLOMACY

BIOS IN THE NEXT MILLENNIUM

Hellenic-French Cultural Symposium , Athens, October 1987

Official Opening Ambassador *Francois Marcel Plaisant*, Embassy of France, Athens

Dimensions of Biopolitics Dr. *Agni Vlavianos-Arvanitis*, President and Founder,

Biopolitics International Organisation

Ethical and Social Dimensions of Biotechnology Dr. *Guy Sergheraert*, Adj. Director General, Centre de Valorisation des Glucides et Produits Naturels

Agricultural Production and Bios in the Next Century *Pierre Feillet*, I.N.R.A. Director of Research

New Technologies: Perspectives of Equilibrium of Bios in Arid Tropical Zones *Georges Martin*, Agronomist, Consultant on International Co-operation for Agriculture

Bios - Instruments and Surveillance of Planet Earth Professor *Hubert Curien*, Minister of Research and Technology, President of the Defense Scientific Council, President of the European Space Research Council

BIOS IN THE NEXT MILLENNIUM

Hellenic-British Cultural Symposium, Athens, May 1988

Introduction Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation

Bios in the Next Millennium The Right Honourable *Lord Ennals*, f. Cabinet Minister

THE BIO-ENVIRONMENT IN A META-INDUSTRIAL SOCIETY

Hellenic-Israeli Cultural Symposium, Athens, January 1990

Keynote Speaker *Stef Wertheimer*, Founder-President, ISCAR Ltd

THE BIO-ENVIRONMENT AND INTERNATIONAL CO-OPERATION

Hellenic-Turkish Cultural Symposium

Athens, May 1990

Welcoming Ceremony - Medal of the City of Athens *Nicolaos Yatrakos*, Mayor of Athens

Opening Address His Eminence The Metropolitan of Chalcedon, Mr. *Vartholomeos*

The International University for the Bio-Environment Dr. *Agni Vlavianos Arvanitis*, President, Biopolitics International Organisation

Bio-Diplomacy and the Bio-Environment *Guntuz Aktan*, Ambassador of Turkey

Bios and Developing Economies *Orhan Karakullukcu*, Former Mayor of Trabzon

Bios and Business *Kitty Kyriacopoulos*, Chairman of the Board, Bauxites Parnasse Mining Company S.A.

Environment and Economy *Theodore Demopoulos*, Governor, Agricultural Bank of Greece

The Golden Horn Project Professor *Ahmet Samsunlu*, Istanbul Technical University

Livable Cities Professor *Zafer Erturk*, Dean, Karadeniz Technical University

Bios and Education Professor *Necdet Serin*, Rector, University of Ankara

Closing Remarks Professor *Rusen Keles*, Director, Centre of Urban Studies, Faculty of Political Sciences, University of Ankara

BIO-ENVIRONMENTAL MONITORING OF THE OCEANS

A Hellenic-Soviet event organised by the Soviet Embassy in Athens and the Biopolitics International Organisation in honor of the Head of Expedition, Dr. Vladimir Berezniisky the Scientific Team of the Academician Alexey Krylov' Research Boat the General Director of the EcoAqua Consortium, Dr. Vladislav Souponitsky and the Soviet Cosmonaut Makarov, April 1991

INTEGRATED SYSTEMS FOR ECOLOGICAL MONITORING

Hellenic-Soviet Cultural Symposium, Athens, May 1991

Contributors

V. E. Sinelnikov, Captain Tasks and Programme of the Expedition
Dr. Vladimir Berezniisky, Head, World Oceans Ecological Monitoring Project
Dr. Vladislav Souponitsky, General Director of the "EcoAqua" Consortium
V. M. Pashin Director, "Academician A. N. Krylov" Central Scientific Research Institute
Viktor Saviniyh Pilot-Cosmonaut, Rector, Moscow Institute for Air Photography and Cartography
Dr. M. K. Narayev Representative, Institute for Space Equipment
Professor Viktor Krasilnikov, First Vice-President, All-Union Economic Society Biopolitics - The Bio-Environment
Dr. Agni Vlavianos Arvanitis, President, Biopolitics International Organisation
Professor Vitalii Samuilov, Director, Centre for Education in Biotechnology
Professor Michail Gusev, Dean, Biology Department Moscow State University

THE BIO-ENVIRONMENT AND INTERNATIONAL CO-OPERATION

Hellenic-Russian Cultural Symposium, Athens, December 1991

Opening Address *Ambassador Panayiotis Economou* General Secretary, Ministry of Foreign Affairs

Greeting of Symposium Participants *Valerij Grishin*, Head of the Information Department of the President of Russia

Welcoming Address

Nikos Anagnostopoulos, Secretary General of Adult Education

Victor A. Boiko, Chargé d' Affaires of the Russian Embassy

Dr. John Bailey, President, American College of Greece

Dr. Nikos Katsaros, Senior Research Scientist, "Democritos" National Research Centre

The Bio-Environment and International Co-operation *Dr. Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation

The Social and Cultural Impact of the Environment on Women *Dr. Alexandra Momdjan*, Vice-President of the Academy of Creative Endeavours, President of the International Women Centre

The Impact of the Environment on the Health of Future Generations Professor *Sergei I. Kolesnikov*, President of the East Siberian Section of the Medical Academy

Women's Health and the Environment Professor *Irina Manuilova*, Cor. Member of the Medical Academy of Russia, Director of the IWC Family Planning Clinic

Personality Disorders Due to Environmental Degradation Professor *Ludmila P. Bueva*, Member of the Academy of Creative Endeavour, Member of the Board of the I.W.C.

New Thinking and the Changing Role of Women in Public Organisations

Tatjana D. Matveeva, Candidate of Historical Sciences Secretary of the I.W.C.

Social Planning and Women's Problems

Natalia S. Grigorjeva, Director, I.W.C. Science - Research Institute

Youth and the Bio-Environment Needed Reforms in Education

Discussion Co-ordinator: Dr. Agni Vlavianos-Arvanitis, B.I.O. President and Founder

Participants: Eleni Daifa-Frantzeskaki, President, Athenian Women's Organisation; *Lala Nicoli*, Head of Department of the Greek Soroptimist Society; *Efi Petrea*, President of the Greek Soroptimist Society; *Alexander Oleskin*, Research Scientist, Department of Biology, Moscow State University; *Christos Efthimiopoulos*, Student, University of Athens; *Tony Bosnackoudis*, Journalist and Author, Junior's Chamber; *Tasos Demetropoulos*, Head of Department, Junior's Chamber; *Manuella Kantzia*, Student, Athens College; *Maria Maroulidou*, Student, Athens College

POPULATION GROWTH, FOOD SECURITY AND EQUITY

Hellenic-Indian Cultural Symposium, Athens, April 1993

Welcoming Address Ambassador *Panayotis Economou*, f. Secretary General, Greek Ministry of Foreign Affairs; Ambassador *Aftab Seth*, Ambassador of India

Biopolitics, the Bio-Environment, a Needed Value System for the Future Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation

Population Growth, Food Security and Equity

Dr. *Kamla Chodhry*, f. Chairperson, National Wastelands Development Board of India

BIO-CULTURE IN THE NEXT MILLENNIUM

Hellenic-Czech Cultural Symposium, Athens, April 1995

Opening Session Ambassador *George Georgiou*, Director of Cultural Affairs, Ministry of Foreign Affairs, Greece; Professor *Jiri Marvan*, Ambassador of the Czech Republic to Greece; Ambassador *Panayotis Economou*, B.I.O. International and Public Relations Advisor; *Panos Panettas*, Vice-President, Athens Chamber of Commerce and Industry

Biopolitics - The Bio-Environment - Bio-Culture in the Next Millennium Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation

Science, Ecology and Society. Interactions, Risks and Prospects Dr. *Rudolf Zahradnik*, President, Czech Academy of Sciences

Economic Development and the Environment in the Czech Republic Dr. *Jaroslav*

Stoklasa, Environmental Advisor, Czech Academy of Sciences

Academic Research in the Transition Economy of the Czech Republic Professor *Vaclav Mejstrik*, Director, Institute of Landscape Ecology, Czech Academy of Sciences

The Wealth of Protected Areas in the Czech Republic Dr. *Jan Cerovsky*, President, ECOPOINT Foundation, Senior Scientist, Czech IUCN

Environmental Policy and Public Participation Dr. *Bedrich Moldan*, f. Minister of Environment, Centre for Environment, Charles University

The Bio-Environment and Decision-Making Dr. *Ivan Rynda*, f. Chairman, Environmental Committee of the Federal Assembly

Searching for Human Values Compatible with Sustainable Ways of Living Dr. *Josef Vavrousek* (1944-1995), Chairman, Society for Sustainable Living

BIOPOLITICS - THE BIO-ENVIRONMENT - EDUCATION IN THE YEAR 2000

International Conference, Cukurova University

Adana, Turkey, May 17-20, 1995

Opening Ceremony

Professor *Hunay Evliya*, Director, Centre for Environmental Research, Cukurova University; Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation; Professor *Rusen Keles*, Director of Environmental Studies, Faculty of Political Science, Ankara University; Professor *Yusuf Unlu*, Deputy Rector, Cukurova University; Mr. *Aytac Durak*, Mayor of Adana; Mr. *Naci Parmaksiz*, Governor of Adana; Mr. *Taskin Tuna*, Ministry of Environment

Academic Session I

Professor *Halet Cambel*, Archaeologist, Karatepe-Aslantaw Museum; Ambassador *Kai Falkman*, General Consul of Sweden in Istanbul; Professor *Andrei Rubin*, Academician, Head, Department of Biophysics, Moscow State University; Professor *Michael Manakov*, Academician, Director, Biotechnology Centre, Mendeleyev University, Moscow; Professor *Gyula Bora*, Vice-Rector, Budapest University Professor *J.W. Dobrowolski*, Polish Academy of Sciences

Academic Session II

Professor *Nur Sozen*, Head, Department of Landscape Architecture, Ankara University; Professor *Rusen Keles* and Ms *Nilgun Gurer*, Faculty of Political Sciences, Ankara University; Professor *Cevat Geray* and Mr. *Mehmet Tuncer*, Faculty of Architecture and Engineering, University of Ankara; Professor *Yaman Ors*, Unit of Medical Ethics, Medical School of Ankara; Dr. *Fred Ernst*, Department of Soil Science, Cukurova University; Professor *Berna Alpagut*, Director, Institute for Social Sciences, Ankara University; Professor *Meral Kence*, Middle East Technical University; Professor *Erdogan Gultekin*, Cukurova University

Roundtable Discussion

Dr. *Agni Vlavianos-Arvanitis*, President and Founder, Biopolitics International Organisation; Mr. *Orhan Karakullukcu*, Industrialist, Former Mayor of Trabzon; Mr. *Nicholas Lycos*, Industrialist; Professor *Mahir Fusunoglu*, Cukurova University

THE BIO-ENVIRONMENT AND INTERNATIONAL CO-OPERATION

Hellenic-Ukrainian Symposium, Athens, November 1996

Perspectives for Hellenic-Ukrainian co-operation Dr. Agni Vlavianos-Arvanitis, President and Founder, Biopolitics International Organisation, Greece

Profit and the bio-environment Dr. Stanislav Sokolenko, Chairman of the Board, Ukrimpex Joint Stock Company, Ukraine

Bio-environment - bio-culture: a musical offering Irina Riabchun (piano), Medea Iasonidou (soprano), Vladislav Halapsis (violin), Alla Halapsis (piano)

BIO-ENVIRONMENT - BIO-CULTURE A VISION FOR THE NEW MILLENNIUM

Hellenic-Ukrainian Conference, Ministry of Foreign Affairs

*Athens, October 1998**

The role of bio-diplomacy Ambassador Yuriy Sergeev, Ukraine

Biopolitics - Building a biocentric millennium society Dr. Agni Vlavianos-Arvanitis, President and Founder, Biopolitics International Organisation, Greece

International co-operation for the environment Theodore Koliopoulos, Deputy Minister of Environment and Public Works, Greece

Bio-culture and international co-operation Dr. Leonid Novokhatko, Deputy Minister of Culture, Ukraine

Biopolitics as a project of hope for the future Professor John Pesmazoglou, f. President of the Academy of Athens, Greece

Science and bio-culture Professor Constantine Sytnik, Vice-President of the National Academy of Sciences and Member of Parliament, Ukraine

The diachronic contribution of the Greek language to bio-culture Professor Athanassios Anagnostopoulos, Director, Thesaurus of the Greek Language Foundation, Greece

Biopolitics exonerated Professor Constantine Despotopoulos, f. President of the Academy of Athens, Greece

Cultural policy of the General Secretariat of Greeks Abroad in Ukraine Stavros Lambrinidis, General Secretary of Greeks Abroad. Presentation by: Maria Dimopoulou, Director of Cultural Affairs, General Secretariat of Greeks Abroad, Greece

Bio-environment, health and quality of life Joanna Panopoulou, General Secretary, Ministry of Public Health and Welfare, Greece

Bio-culture and health Dimitris Papathanassiou, Chairman of the Board, Hippocrateio General Hospital, Athens, Greece

Health and the bio-environment Dr. Emmanouel Badouvas, Professor of Surgery, University of Athens, Greece

Bio-business and our harmonisation with the environment Dr. Stanislav Sokolenko, Chairman of the Board, Ukrimpex Joint Stock Company, Ukraine

Greece-Ukraine: options for co-operation Panayiotis Koutsikos, President, Koutsikos

Group of Enterprises

Communications and the environment Athanassios Papandropoulos, International President, Union of European Journalists, Greece

Bio-trade John Tzen, Chairman, Hellenic Foreign Trade Board, Greece

Bio-financing Constantine Kanonis, Alt. General Manager, Commercial Bank of Greece

Regulations for motherhood and childhood on the basis of bios Lilia Grygorovych, Member of Parliament, Ukraine

Principles of Biopolitics in Greek law and legislation Dr. John Sarmas, Counsellor of the National Court of Audits, Greece

The bio-environment in the electronic era Dr. Christos Efthymiopoulos, Physicist, Biopolitics International Organisation, Greece

Environmental aspects of energy policies Constantine Maniatopoulos, f. Director of Energy of the European Commission, Greece

* Within the framework of the Hellenic-Ukrainian Symposium, world renowned micro-miniaturist Nicolai Syadristy held an exhibit of his remarkable works at Maramenos & Pateras Jewellers.

BIO-DIPLOMACY - A NEW VISION IN INTERNATIONAL RELATIONS

*International Symposium with the participation of ambassadors and dignitaries
from 21 countries, Athens, February 2000*

Albania: Ambassador *Kastriot Robo*

Bulgaria: Ambassador *Kyryl Topalov*

Colombia: Ambassador *Manuel Jose Bonett*

Hungary: Counsellor *Karolyi Kiss*

India: Ambassador *Gurdip Singh Bedi*

Indonesia: Ambassador *Irawan Abidin*

Italy: Ambassador *Agostino Mathis*

The Netherlands: Ambassador *Paul Brouwer*

The Philippines: Ambassador *Norberto Basilio*

Poland: Ambassador *Wojtek Lametowicz*

Russia: *Evgeny Kutovoy*, Alternate General Director, International Centre for Black Sea Studies

Slovak Republic: Ambassador *Milan Dubcek*

Slovenia: Ambassador *Bornd Mahnic*

South Africa: Ambassador *David Jacobs*

Spain: Ambassador *Javier Jimenez*

Ukraine: Ambassador *Yuryi Sergejev*

UK: Ambassador *David Madden*

USA: *Katherine Ingmanson*, Economic Officer

The Vatican: The Apostolic Nuncio *Paul Fouad Tabet*

Venezuela: *Laura Guardia*, Chargée d'Affaires

Yugoslavia: Ambassador *Dragomir Vucicevic*

BIOS DAYS

First Bios Day a picnic lunch in the country home of the painter Angelos in honour of The Right Honourable Lord Ennals, May 1988

Second Bios Day a picnic lunch in the country home of the painter Angelos in honour of His Excellency the Ambassador of Japan Kazuo Kaneko, May 1989

Third Bios Day a picnic lunch at the country home of the painter Angelos in honour of His Excellency the Ambassador of Turkey Gunduz Aktan and the participants of the Hellenic-Turkish Symposium, May 1990

Fourth Bios Day a picnic lunch in the country home of Mr. and Mrs. Lambropoulos in honour of the participants of the Hellenic-Soviet Symposium, May 1991