

THE INTERNATIONAL UNIVERSITY FOR THE BIO-ENVIRONMENT: EDUCATION AND BEHAVIOR

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The International University for the Bio-Environment (I.U.B.E.) should be seen as an institution at the highest level of training, geared toward the development of decision-makers, be they politicians, scientists or administrators. A radical change of mentality toward the system we live in must take place in order to safeguard the dynamic equilibrium of natural systems. This change must always aim for the scientific objective and not for the methods which serve to fulfill political goals. Man must live on the Earth, with the Earth, and not against the Earth.

Bio-environment, education and human behavior

The I.U.B.E. must be recognized as a parallel organization on an academic par with other establishments of higher education. Bearing in mind that human behavior is determined by many factors in a consumer society, the I.U.B.E. should aim to influence our thinking toward a full appreciation of the total environment in which we live. To achieve this purpose - i.e. to produce generalized and permanent effects - education must be adapted to every socio-cultural context and implemented from the youngest age involving the children's global environment.

On the other hand, the Earth is an integrated and unique system where actions are strong and condition the factors of the bio-ecocenotic equilibrium. The smallest change of a variable causes chain variations of the system. A few of the changes, although not visible at first sight, sometimes have unpredictable consequences. This implies the need for permanent monitoring of the Earth systems.

Decision-makers in scientific, educational or political areas must be aware of the interactions within the various systems mentioned above as well as the Earth's dynamic system. They must be informed on how to integrate themselves as components of the anthropic sub-system. It is known that human skills do not always have regard for the means to reach immediate goals. All of us as individuals must be able to observe and detect negative actions, by sounding the alarm to prevent disasters at the first sign of any abuse. From the very beginning, education must integrate subjects adapted to different ages, teaching the youth to respect and defend their environment.

Progressively, the population must understand in which ways and how far man can manipulate the infinitesimal structural unit of bios. Scientists must exchange knowledge but also form lobbies to prevent follow-up research which could be abused and prove disastrous at the hands of any paranoid.

The sensitivity of the physical environment is much greater than we have been led to believe in the recent past. Research and intercommunication between scientists must be improved and up-to-date knowledge effectively disseminated so as to involve people on problems of concern to all communities.

Apparently, natural phenomena do not receive the attention they deserve. Simple erosion causes nutrient depletion in different areas, consequently reducing the production of crops. But these are immediately replaced by imported produce, or the nutrient deficiencies are corrected through the use of expensive inorganic fertilizers which require enormous amounts of energy for their production. Where does the energy come from in most cases? Agricultural rotation or adequate shifting could compensate in part for the mineral fertilizers required.

The quality of life defended by everybody is frequently the cause of equilibrium rupture. Carbon monoxide produced by cars is a good example. But who would change his 120 HP car for a bicycle when going to the next-door shop to buy a packet of cigarettes? Plastic bags, aerosols, beer cans, old cars and trains represent not only consumed energy but also an accumulation of pollutants. The number of airplanes crossing the skies every hour, for our convenience, has a negative effect on the atmospheric composition.

These pleasant conveniences we all enjoy seem absolutely inoffensive to the common person, but where does the CO₂, SO₂, P₂O₅, in suspension in the air originate and why?

Skin and respiratory diseases, and eye infections are directly related to the production of an infinite number of 'conveniences' or artificial mechanisms use to cosmetically alter our appearance and our environment.

Humanity should urgently reach a sound maturity. This could be the goal of the International University for the Bio-Environment - to build a system that will enable people to behave adequately in all activities. It is a mission.

The I.U.B.E.

The I.U.B.E. must have a very light structure to fulfill its aims of coordination and promotion in cooperation with different institutions, government agencies and societies. It must:

- A. Organize well-documented conferences, audio-visual documents on different subjects and, directly or indirectly, promote their presentations in live audiences or via television.
- B. Intervene at the political decision level on research and application policies and obtain an overall agreement on actions related to the defense of bios and biotopes.
- C. Undertake conjugated efforts for the protection of genetic reserves and their mapping; preserve urgently the still not degraded systems.
- D. Produce directly or in cooperation adequate audio-visual material for education purposes in different countries which is easily adaptable to different cultural contexts.
- E. Promote the permanent monitoring of the Earth and the exchange of information to enable research and intervention at the appropriate time.
- F. Promote and coordinate the training of experts in different specialties according to the needs of every region.
- G. Assure, disseminate and divulge knowledge in such a way that every person will be alerted to the implications of collective or individual activities that can imbalance the equilibrium of the ecosystem.

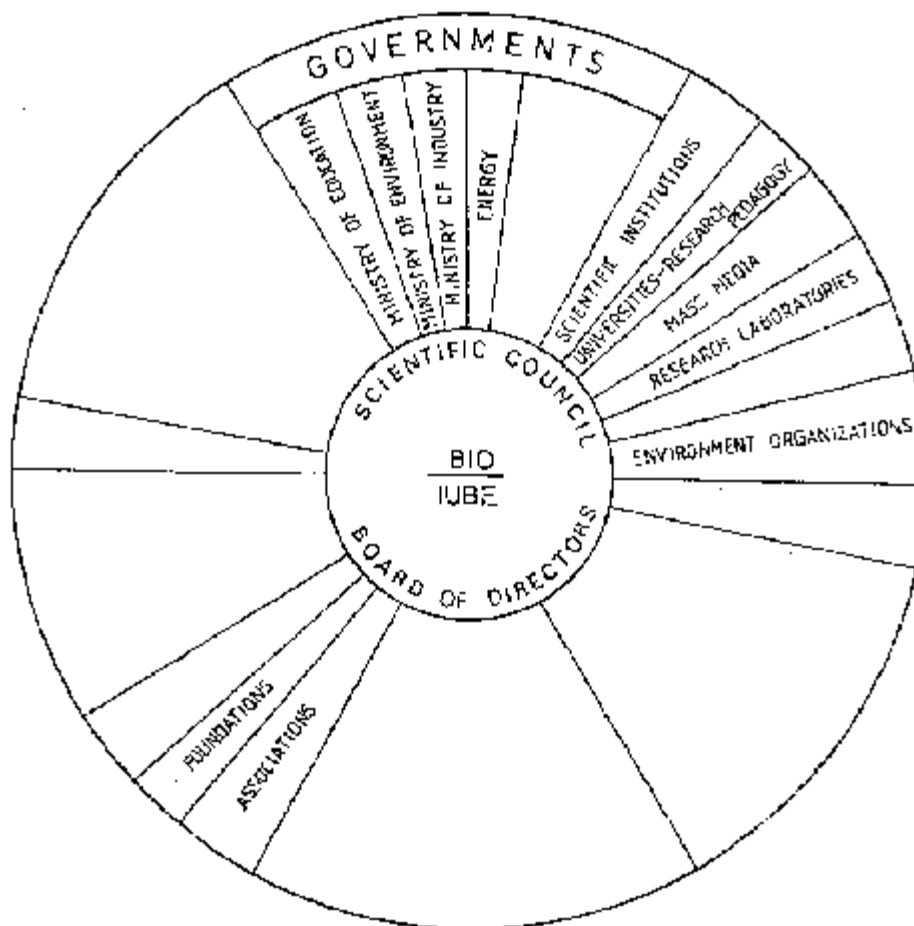


Figure 1: The structure of the I.U.B.E.

A question arises: Is this the appropriate time for the creation of the I.U.B.E.? In my opinion it is. Maybe it is already too late.

Mozambique, and as General Director of the Ministry of Industry and Trade in Portugal, he has had numerous responsibilities relating to industrial and environmental development both in Portugal and in Mozambique. He has published articles on land survey and agronomy.