

THE ROLE OF THE IUBE IN NATURAL DISASTERS

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The Fourth International Conference of the Biopolitics International Organisation (B.I.O.), through the dynamic leadership of its President, Dr. Agni Vlavianos-Arvanitis, in 1991, initiated the establishment of the International University of the Bio-Environment (I.U.B.E.) which was a quantum leap forward to promote, facilitate, and implement the objectives of the B.I.O. to safeguard Mother Nature for future generations. The decision of the conference to establish the I.U.B.E., gives full credence to the function of education in the creation of a Global University Model which embraces the needs of humanity to preserve our precious bios.

A close examination of the contents of the papers presented during the succeeding conference of the B.I.O., struck me as a classical irony when these did not contain any guidelines pertaining to natural disasters and coping with their destructive effects to life and to the environment. This modality motivated the writer to emphasize natural catastrophe, due to what actually happened in the Philippines. At the time, the Filipinos were convinced of the need to protect Mother Nature because of the appeal to almost all sectors of society, of the crucial need to protect the bio-environment and love for the Earth. Then, suddenly, an extinct volcano, Mt. Pinatubo, inactive for 633 years, erupted. Ash was spewed more than 32,000 feet high and caused death and great environmental destruction.

The trauma and terror spread by the eruption isolated the nation from the outside world. No plane could come near due to the thick volcanic ash. The dust, destruction and darkness covered an area of 30 kilometers for almost a week. It is in such actual experience that Natural Disaster Preparedness should be emphasized in the content of the natural science discipline of the I.U.B.E..

According to the United Nations Disaster Relief Coordinator (UNDRO), every year our planet experiences countless dynamic natural phenomena: 100,000 thunderstorms; 10,000 floods; thousands of volcanic eruptions, tropical cyclones, locust manifestation, all of which can cause death, injury, upheaval, and dislocation to at least one billion people as well as enormous destruction to the bio-environment.

The main purpose of this paper is for information dissemination and reference material for the I.U.B.E. data bank on relevant life-saving measures caused by natural disasters including environmental protection for the human community.

What is the role of the I.U.B.E. in natural disaster preparedness, its prevention and possible reduction? To assess conceivable answers to this question, it is necessary to recognize the distinction between a natural hazard and a disaster. Natural hazards according to the UNDRO are environmental phenomena which used to be thought of as the force of nature. Authorities now recognize that human activities can significantly alter these natural forces. Deforestation of slopes leads to more floods and droughts, and unwise agricultural practices, lead to desertification and food shortages. Most worrisome of all is global warming due to the greenhouse effect, gas increases caused by human activities, which are postulated to cause severe increases in the number of tropical and extra-tropical storms, floods and droughts in many regions of the world. Many scientific observers consider, in the light of strong evidence, that the natural hazards are increasing due to human activities.

Likewise, natural hazards are considered disasters when human facilities and activities are involved. A flood or an earthquake in a non-inhabited area is simply a natural process, but when it happens in a heavily populated region, as in Erzincan, Turkey, in March 1992, it produced a disaster of enormous proportions, which led to a great deal of economic loss with thousands of houses reduced to rubble. According to history, this city was rebuilt following the 1939 earthquake that killed 32,000 people. This time, it killed 2,000 residents.

Natural disasters have been called the greatest destroyer of lives, goods and property, as well as of the bio-environment. UNDRO reports that more than \$50 billion worth of property is destroyed in these disasters. How can we reduce this destruction?

One approach is through preparedness, which means the operation of warning infrastructure, detection devices, dissemination of warnings and instructions, as well as communication of information to and from the communities before, during, and after the disaster.

Another approach is through prevention, which includes such mechanisms as the development of scenarios of potential disasters such as: hazard mapping combined with assessing the population at risk; formulation of government policies and regulations; installation of detection and warning devices; environmental management such as reforestation, vegetation; and application of structural engineering measures. These and many experiences around the world, make it evident that disaster-prevention techniques, warnings and preparedness systems can save many lives and much of the damage to property.

Conclusively, due to the fact that major disasters can undo several years of economic progress in many developing countries and that losses

can be significantly reduced, disaster prevention, warning and preparedness must be an integral part of the economic planning in all countries, which should also be coordinated and spread by the I.U.B.E. to the academic community.

Dr. Liduvina R. Senora holds a Ph.D. in educational management and supervision. She is Executive Secretary of the UN Association of the Philippines, president of the National Federation of UNESCO Clubs and Associated Schools in the Philippines, and vice-president of the Asian Federation of UNESCO Clubs and Associations in Tokyo, Japan. She has published several books dealing with education and social studies and has been a member of the Executive Committee of the World Federation of UNESCO Clubs and Associations. In recognition of her efforts for the realisation of world peace, international understanding and co-operation, Dr. Senora has received many national honorary awards.