# THE FUTURE OF BIOS - ASIAN DIMENSION

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Bios is sustained by a relatively thin layer of air, soil and water which is collectively called the "biosphere". It is extremely vulnerable and the natural life support system it embodies can operate at maximum efficiency in the absence of natural disasters, if organisms, including man, do not draw from it more than that which is necessary for sustenance and procreation.

During thousands of millennia, the resulting equilibrium remained relatively undisturbed. With the emergence of the tool making animal we call "man" and after an evolutionary process covering millions of years, the equilibrium of the biosphere began to show signs of stress. On a geological time scale during a relatively brief period of time, the crude technology developed by old and new stone-age man gave him the power to change the environment to the advantage of his species. Broadly speaking, the story of what we call civilization, is the story of mankind's progress from the neolithic stage, subservient as a species to the apparently inexorable laws of nature, to a species capable of changing the course of evolution in any desired direction.

Modern man has developed the technology capable of the near complete replacement of human labor and mental activity by automotive machines and computers. Revolutionary transformations have been brought about in both industry and agriculture bringing a promise of plenty and complete freedom from want. I do not wish to dwell on the consequences of this transition apart from observing that on the credit side it has brought numerous benefits to human society in many ways. On the debit side it has left a global cross-border trail of environmental pollution that threatens not only the entire ecosystem but the very survival of the biosphere.

Having unravelled the secrets of the macrocosmos which has opened a whole new frontier for exploration and exploitation, man is now probing into the microcosmos to discover a world hitherto closed to human vision. He has developed a whole new branch of bio-technology which has given him power to create new varieties of plants and breeds of animals through genetic engineering that has breached the barriers between plants, animals and micro-organisms. This breakthrough, if unchecked by ethical constraints, may even pave the way for the genetic manipulation of the biological process of natural human birth in forms that are morally indefensible. In the wrong hands, this technology may lead to aberrations which society may find difficult to restrain and repress.

Bio-technology had its early practical application in the Green Revolution of the 1960s which affected only three crops - rice, wheat and maize. The genetic revolution involves the combination of plants, animals and micro-organisms.

Man has presently developed the enormous potential as seen by the foregoing observations to ensure the harmonious development of the human species and the equilibrium of the bio-system on which real development rests. To marshal and activate the forces at our disposal, we need to develop new ways of thinking about the role of man in present and future society.

The need to spell out a new political philosophy and an action program based on it, has brought us together in this historic capital, Athens. One year ago, under the distinguised leadership of Dr. Agni Vlavianos-Arvanitis, we witnessed the inauguration of the Biopolitics International Organisation to give form, substance and direction to the new concept introduced for the first time in international parlance - the concept of Biopolitics.

Biopolitics presupposes respect for all forms of life because life forms, however variant, are interdependent. Threats to bios and the biosphere are global in their impact. Hence, biopolitics presupposes political action that cuts across national boundaries. The concept has as its ultimate objective the harnessing of the potential acquired by man through the understanding of the macro and microcosmos to plan and carry forward a course of positive development that encompasses the whole of mankind and its progeny yet unborn.

The consummation of this ideal is frustrated at every turn by negative destructive forces exemplified by the arms race, the steady depletion of non-renewable resources, chemical pollution of the biosphere and atmosphere, and now the exploitative application of bio-technology in general and genetic engineering in particular. Municipal law, as against international law, cannot by itself control and eradicate pollutants that are cross-border in origin. The concept of national sovereignty will have to give place to morally and legally binding conventions. We are here to discuss the urgency of the need to further develop international law through the UN system.

Coming closer to the theme of my presentation, I wish to stress the point that technology in all its manifestations, and bio-technology in particular, have developed in a manner injurious to the interest of Asia and other developing countries, and beneficial to the affluent who have

a controlling interest in the development of the new varieties of crops through genetic engineering.

In the context of the Asian situation, the threat to bios in the next millennium, as outlined above, is equally applicable to Asia but heightened and intensified by conditions peculiar to the continent and to other Third World countries. In our region the biggest impediment to bio-regeneration is poverty. In the developed countries bio-degeneration is the result of industrial politics based on wrong premises.

In such countries, we witness the paradoxical accumulation of enormous food surpluses which the system cannot dispose of without causing an economic backlash in the form of price depression and unemployment. In Asia, rural poverty has witnessed the growth of industrial centers with burgeoning slums, over-population through internal migration, thus creating ecological problems of the first magnitude. This trend, if not checked now, will assume catastrophic proportions in the next millennium. It is not the policies and economics of the North against the policies and economics of the South, or even south-south economics and policies that can find a way out of this impasse, but a political and economic decision-making process that treat the planet and all life forms contained therein as a unity. It is only by such an approach that disparities of wealth and poverty can be narrowed down and eventually eliminated. As I see it, this is the substance and essence of biopolitics.

In Asia, we have a first world, a second world and a third world. The tragedy is that the first world in Asia, and to a lesser extent the more advanced second world countries, find it more profitable to make a common cause with developed countries of the northern hemisphere, thus creating friction and disunity in the Asia milieu making global problems more difficult to resolve.

In Asia and other developing countries, particularly in Africa, urgent action is called for to ensure food security by strategies to transfer the vast food surpluses to deficit areas on sound economic lines, and not, as at present, on a donor-donee basis which may be bilateral, multilateral or through sports and musical extravaganzas -- however well-intentioned. No amount of charity can scale down the food mountains and subsidies that developed countries have no choice but to maintain. Our Association has formally proposed to the FAO to examine the feasibility of a World Food Purchasing Authority, and we have prepared a paper on the subject.

In developed countries the disposal of the industrial waste, particularly nuclear waste, is governed by stringent laws and regulations that push up company costs on waste disposal. The more unscrupulous of these companies resort to the unethical and highly dangerous practice of circumventing the ban on certain pesticides in countries of origin by resorting to the stratagem "Prior Informed Consent" and the proliferation of useless and sometimes harmful pharmaceuticals and products listed in the UN Consolidated List of banned products and products sold contrary to the FAO Pesticide Code, are problems that come within the scope of biopolitics.

Another subject that augurs both good and evil to Asia and other developing countries in the next millennium, is the awesome and mind-boggling vistas opened up by genetic engineering. I referred earlier to the Green Revolution which proved more a bane than a boon to poor Asian farmers.

In the development of new plant varieties through genetic engineering, Asia and other developing countries have been placed in a subservient position. The glacial ages in the northern hemisphere destroyed the rich variety of plant and animal life which are preserved in their natural condition in the virgin forests of the southern hemisphere. It is from these native wild varieties that Asian farmers developed low-yielding, yet pest-resistant varieties of crops. Genetic engineering has the capacity of producing high-yielding pest-resistant varieties by combining genes of native varieties found extensively in Third World countries. The vast store house of germ plasma (total genetic variability available to a species) is being drained to the gene banks of Northern Europe and North America. According to Iftikar Ahmed, a researcher working with the International Labor Organization, 90% of the germ plasma from third world countries are stored in this manner. As a result of this drain and the introduction of new varieties produced through a combination of genes, old crop varieties are dying out and the genetic diversity which Third World countries are heirs to, is being depleted. "The global market for applied bio-technology in plant agriculture alone is estimated at $50 billion a year". As in the green revolution, the miracle plants resulting from genetic engineering are beyond the reach of those who need them most - the world's poorest!

The bio-revolution affords a unique opportunity to solve the problem of acute rural poverty. When a country's genetic resource base is eroded it has no alternative but to purchase patented seeds at very high cost from companies that developed them, together with other inputs, like fertilizers and pesticides which are equally costly, being bought and sold in one package. If poverty in Asia is to be eliminated in the next millennium, hoarding of germ plasma by affluent countries must be severely restricted. Genetic engineering must be more in a direction in which the developing countries use their own germ plasma stored in their own gene banks, or obtained directly from their natural condition to produce varieties of crops that do not need the costly inputs imported varieties require. Instead of developing pest-resistant varieties, it is rational from the point of view of the poor farmer, to produce plague-resistant varieties thus obviating the need to use costly pesticides. Such an approach is less profit-oriented and more subsistence-oriented. According to a report in Development Forum issue of July - August 1988, Nicaragua is an example of a poor country that allocates 50% of its agricultural budget to genetic resources. According to the report, Nicaraguan scientists are now working on tissue cultures to develop new export crops.

Hybrid wheat and maize strains failed completely in Ethiopia. Those who sowed their own sorghum and millet varieties which are low-yielding but resistant to Ethiopian weather, were the only farmers who got some grain. It may be observed with some truth that the African famine is partly made in Europe. From this Ethiopia has learned a bitter lesson. Now the world's poorest country has the largest gene bank in

the Third World. 12 regeneration centres have been set up to supply farmers with their own native varieties (same source).

The task for the next millennium is, therefore, to canvas worldwide support for a UN convention on the subject with a Code of Conduct binding on gene banks, seed developers and Third World countries, and to agitate internationally for the ratification of such a convention which would oblige seed developers to promote and implement policies to ensure that the benefits of the genetic revolution accrue to the countries of the Third World.

Before concluding, permit me to touch upon certain socio-economic manifestations which, if not remedied in time, are bound to impede human progress in the region in the next millennium. Debt is one such manifestation, but it lies more lightly on Asian countries than on countries of Africa and Latin America. In Asia, racial, religious and political turmoil continues to take a heavy toll on life and property. Racial and religious extremism rampant in certain Asian countries is neither rationally or morally defensible. It is time that mankind turned away from the myth of race and religious intolerance. In this context it is not beyond the scope of the Biopolitics International Organisation to sponsor a "Regional Conference on Tolerance for Diversity of Religion and Belief" in conformity with the UN Declaration of 1981 on the Freedom of Religion and Belief.

In Asia, we are heirs to a very rich philosophical and cultural heritage which has now become part of the heritage of man. Implicit in the observation made in this paper, is the assumption that mankind is passing through a phase in human evolution, when convergent and divergent forces are in conflict.

As observed earlier, humans are no longer the passive creatures of evolution. We have the capacity to change the course of evolution through the technology which is now at our disposal. It is our moral and sacred responsibility to ensure that the course of evolution, which we are now in a position to chart for ourselves, brings us nearer to the ultimate total convergence during the next millennium.

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