

The United Nations University: Desirable Directions for 1988-1993
Some Reflections

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Every institution needs a tangible sense of direction to prevent the fragmentation of its efforts. But at the same time, an institution that is dedicated to the analysis of emerging issues must retain maximum flexibility. For this reason, the United Nations University has chosen to formulate its future intention in terms of a Medium-term Perspective rather than a Medium-term Plan.

The Medium-term Perspective (MTP) is meant to give a clear statement of the broad issues to which the UNU should address itself in the years ahead, as well as the methods of work it will follow and its intended development as an institution. But at the same time the MTP should leave open the possibility of adopting new issues, new methods, and new institutional forms as the changing circumstances of the real world require. The Medium-term Perspective of the UNU should function as a sort of navigational chart, helping to recognize the need for course corrections when the work of the University threatens to veer away from the central issues of the times.

The content of the second Medium-term Perspective will build upon the experience gained and the strengths developed in the first twelve years of UNU programme activities. The UNU Charter instructs the University to focus its work on "survival, development and welfare". During the first five years of programme implementation, the University concentrated heavily on the second of these. Programmes on world hunger, the use and management of natural resources, and human and social development addressed what were considered to be the most urgent aspects of development.

In the period covered by the first Medium-term Perspective (1983-1987), the UNU moved decisively to address issues of survival and welfare, from its continuing concern for and experience with development. The first MTP reflected the larger concept of development that evolved throughout the 1970s and early 1980s—a concept that includes political and social as well as economic and technological change.

The first MTP was a deliberate attempt to broaden the perspective of the UNU, to take in a very wide spectrum of concerns within a coherent framework. The case for the breadth of the first MTP rested on three considerations. First, it was recognized that in order to remain relevant to the most pressing global problems, the UNU must be experimental; it must constantly scout the frontiers of knowledge and prospect for emerging issues. There are institutions of higher learning that, having become comfortable with an approach and a group of well-defined disciplines, have failed to adapt their efforts as the world changed around them. They have therefore risked becoming irrelevant to the concerns of their surroundings or, worse, becoming instruments of alienation. The UNU is clearly not meant to be just a custodian of knowledge or a transmitter of received wisdom. It has a more activist mandate than most universities: to address itself to pressing global issues.

A second factor which argued for breadth is that the UNU has a great many diverse constituencies, both regional and topical. It has a responsibility, as part of the UN system, to be responsive to them. Some governments, donor agencies and academic institutions have become actively interested in the UNU only when it has developed activities in areas of special interest to them. The UNU is a rare, perhaps unique, example of an institution of higher learning that has a universal mandate. It is not dominated by any set of national or cultural interests, but has the fundamental concerns of all humankind as its starting point.

The third and most compelling reason for working on a very wide spectrum of issues is that the coherence and veracity of one's grasp of the human situation depend on it. Even if the UNU is not doing the definitive study on each element of a complex reality, it cannot afford to close itself off from developments in fields of study that have a bearing on the concerns laid out in the Charter. To do so would run the risk of distorting reality, missing new problems, and drawing inappropriate policy implications from research.

The work of the UNU under the first MTP was organized under five broad themes:

- I. Peace, Security, Conflict Resolution and Global Transformation
- II. The Global Economy
- III. Hunger, Poverty, Resources and the Environment
- IV. Human and Social Development and the Coexistence of Peoples, Cultures and Social Systems
- V. Science and Technology and their Social and Ethical Implications

These themes were meant to expand rather than confine the scope of the research, training and dissemination of knowledge carried out by the UNU.

The very broad themes of the first MTP obviously have not been exhausted in the six-year programme they guided. It would be easy to continue them as stated. But in doing so it would be important not to forfeit the opportunity to act upon the lessons that have been learned in the course of the first ten years of the UNU programme, and particularly during the first MTP. There is an urgent need also to be responsive to the sweeping changes in the international environment (including especially the intellectual environment) that have marked this decade. Moreover, after the very fruitful exercise in broadening the reach of the University's work, it is time now for the pendulum to swing back somewhat toward a greater concentration on a more limited number of areas, and to refine the definition of issues on which the UNU has a distinctive contribution to make.

Most of the projects of the first MTP are coming to their planned conclusions. It is therefore an apposite time to reflect upon the strengths the UNU has developed, the issues that it has left uncovered, and draw the appropriate lessons. The need for concentration is one of the most obvious lessons. To acknowledge this is not to doubt how essential it was in the first MTP to broaden the horizons of the UNU. This revealed many of the crucial linkages among issues on which the programme must concentrate in the future, which would not have become apparent had a narrower approach been pursued. Nonetheless, having now identified a number of those linkages, the UNU programme should be focused on them.

As a result of the very rapid pace of events, some research topics and approaches have become obsolete. The next generation of issues lie at the intersections of traditional disciplines and fields of study: security and development, environment and human settlement, hunger and poverty, climate and human modification of the environment, interdependence and autonomy, technology and culture. As these interfaces are approached, it becomes obvious that, often, the basic conceptual tools for dealing with them are inadequate. The work of the UNU should help to develop such tools. They will have to go beyond sectoral approaches, area studies, and even interdisciplinarity to find new modes of analysis for dealing with complex realities.

Another of the lessons of the 1980s, which was brought out in the first MTP, is how naive traditional notions of development have been, and how inadequate for illuminating the complexities of simultaneous social, economic, political, technological and cultural change. Development cannot be separated from the state of ecosystems, from the turbulence in the international system, from the impact of scientific discoveries. It cannot be accomplished within the confines of a single nation-state, given the interpenetration of global and national economies. It has become clear that political factors are as critical as economic ones for development, and indeed that the two can hardly be separated. Economic stagnation, uneven or distorted economic growth are the seedbeds for political conflicts which in turn rebound upon growth. Conflict resolution is therefore a vital factor in development.

Much of the conventional wisdom about the mechanisms of development have been called into question by the experience of the past ten years. Conventional ideas about appropriate technology, for example, have lost their relevance in the face of advances in microelectronics, informatics, biotechnology and such; today it is clear that appropriate technology must be a sophisticated blend of the traditional and the most advanced techniques. Similarly, prior notions of self-reliant development have been overtaken by the pace of events in international currency and commodity markets, in science and technology, in the international division of labor. The experience of industrialization in the North has lost much of its value as a template for industrialization in the South. Strategies for industrialization, rural development and employment creation require fundamental revision.

One might well question whether the traditional concept of development— as a linear progression through well-defined stages— is not obsolete. Certainly there is a need to think about it in radically different ways. The number of corrective accretions to the classic concept suggest that the time may have arrived for a paradigm shift, in the sense that Thomas Kuhn has employed the term.

The rapidity of change and the disorientation that comes from it have produced powerful cultural reactions. Aspirations have been raised and then blighted, traditional values shaken or reinforced, religious convictions challenged or reaffirmed. The difficulty of living with rapid change has encouraged in many people a turning inward toward primordial affiliations based on ethnicity, religion, language or region. Fragmentation of the polity, and conflict among the disparate groups has become one of the primary threats to social cohesion.

The importance of examining cultural factors in development closely and honestly, without either romanticizing or denigrating them, has become clear during the investigations carried out under the first MTP. In all cultures, adjustment and evolution can take creative or disfunctional forms. Much more work is needed that will provide insights on ways of building upon and cultivating the positive elements from within. This implies a focus on the innovative capacities of cultures, their ability to reinterpret themselves and respond creatively to change.

Recognition of the centrality of cultural factors in development highlights the need for a persistent search for common values across cultures. The highest common values, rather than the lowest common denominators of self-interest, should form the ethical basis for cooperative action and mutual tolerance across differing cultures, ideologies and systems. The ability of the social sciences to grasp and comprehend traditional values within a society must be heightened, in order that the social sciences might move closer to an understanding of the world views held by various cultures and civilizations. Traditional values are imbedded in a great many levels and sources: religion, custom, language and so forth. In trying to grasp values, the social sciences would benefit from a closer alliance with the humanities.

It has become clear during the past ten years that the UNU can and should participate in the redirection of the social sciences, so that they can contribute to the capacity of societies to understand and adjust to rapid change. The social sciences must better equip themselves to deal with technology and ethical issues, with new social actors and problems of social cohesion. Definitive changes have occurred that shape new social realities: for example, today's enormous, often alienated youth cohorts, chronic unemployment, the easy availability of arms, and the heightened intensity of religious, ethnic and regional passions. The social sciences can no longer content themselves with describing the outcome of change; they must cultivate an understanding of the dynamics of change: not only how things have changed, but why.

With the rapidity of change and the inability or unwillingness of established institutions to adjust quickly to new circumstances, more and more people throughout the world are looking outside of established institutions for frameworks of meaning and action. The growth of non-party politics, underground economies, independent religious movements, new citizens campaigns and so forth, all of which might be termed "protestant movements", illustrate the extent of disaffection. A new political and social agenda has been set, whether through peaceful insistence or violent confrontation. The achievement of social cohesion in the face of multiple fissiparous tendencies is one challenge that the social sciences should address.

The need to think in dynamic terms about social processes and the possible need for new paradigms suggest that recent conceptual breakthroughs in the natural sciences reduce the distance between the natural and the social sciences. Traditionally, when science thought of simple phenomena it concerned itself with the repeatable experiments of physics and chemistry or the domain of planetary motion. Complex phenomena were to be found in the areas of biology, economics and the study of society. A remarkable feature of our time is that the gap between these two sets of phenomena has narrowed dramatically through new concepts of matter, time, evolution, the importance of fluctuation and amplification, randomness and stochastic processes. These new concepts that have emerged in the natural sciences concern the evolution of complex, unstable systems. The study of open systems subject to flows of energy and matter has led to quite a new understanding of the manner in which forms, complexity, and organization emerge and develop. In it we see the roots of innovation and the unification of the physical and human sciences in a new evolutionary vision. The concept of innovation is in turn closely linked to the concept of self-organization associated with all living systems, which thus provides a particularly suitable basis for reflections aimed at policy exploration in human and social systems. Thus, these new concepts have been applied in the study of urban systems, of population movements and, in a project supported by the UNU, the management of fisheries. Science itself is in transition. In this process, the UNU must find a place.

For ten years, the UNU has actively assisted institutions in developing countries to build up the scientific strengths of their staffs, through training and collaborative research projects. The focus has been on those areas of research and training that have direct practical relevance to the most pressing needs of society. Thus, for example, food, nutrition and energy studies have been prominent in the UNU training programme. But at the same time it has become apparent that the developing countries cannot afford to concentrate exclusively on the applied sciences. To do so would be to condemn themselves to the role of perpetual consumers of scientific and technological innovations from the North. The key to autonomy in this sense is indigenous innovative capacity, and this can only grow on the basis of rigorous training in the basic sciences. The UNU should position itself to provide modest but significant support for such training.

The limitations of technology transfer as a vehicle for the advancement of the Third World have emerged as major constraints on development. Technology transfer has commonly been attempted with little investigation of or regard for the absorptive capacity of the society to which techniques are being transferred. Greater emphasis is needed on the properties that foster innovation and cultural adaptation of imported technologies—properties such as academic freedom, the encouragement of creative non-conformity, willingness to question received wisdom, and a system of reward for innovators. Similarly, the impediments to innovation should be examined. The question of cultural adaptation is particularly important for the maintenance of a sense of identity and cultural continuity in the face of rapid technological change. The relationship of technology to culture, values, human rights, employment patterns and such deserve much more profound examination.

Perhaps the most far-reaching lesson of the first ten years of the United Nations University is the importance of learning as such. Learning is a much more comprehensive process than being educated. Education implies a top-down process, involving in some fashion a student and a teacher, or at least a medium of instruction. Learning is an open system. It includes self-generated knowledge acquired through experience or observation, interaction, sharing of information, experimentation and feedback in addition to instruction. It involves individuals, groups and institutions as well as whole societies and cultures. Both on the individual, cognitive level and the social, adaptive level, development is a learning process. If it is not, it is a mere varnish or, worse, an imposition.

The UNU in the first MTP coined the term "global learning". It was a deliberate double entendre, meant to convey both the sense of learning as a global process that must involve all levels of society, and the sense of learning to think globally, in recognition that the world is a finite, closely interconnected, single system. Global learning also implies a recognition of new needs for learning. It seeks a better understanding of the learning process, at various levels: the assimilation of information; the capacity to turn information into knowledge; the capacity for integration, synthesis, judgement; and the capacity for collective learning. In a period of rapid and accelerating change, learning, in all senses, is a legitimate area for research and a crucial area for action.

The United Nations University is attempting to make a mark in an intellectual landscape whose features would scarcely be recognizable to a Rip van Winkle who had slept for even ten years. The shift in scientific paradigms, the growing appreciation of the inherent complexity of natural and social reality, the awareness of the inadequacy of previous approaches to development have been mentioned. These are rather positive manifestations, which clear the way for a more sophisticated understanding of the world around us. But there are many negative features as well: growing intellectual intolerance, the breakdown of communications among different schools of thought even within disciplines, the narrowing of vision caused by overspecialization, a diminution of consensus on basic concepts and methodologies, increasing limitations on access to knowledge for reasons of commerce or national security. It is against this background that the efforts of the UNU to break down intellectual barriers and foster new knowledge gain their significance.

There are no doubt a great many other lessons that could be drawn from the experience of the UNU in ten years of operation, and particularly from the horizon-expanding effort represented by the first MTP. The foregoing has been an attempt to draw attention to those lessons that give the most positive sense of direction for the future activity of the University. They should help to answer the questions: 1) What is the next generation of issues that the UNU should focus on as having the greatest potential for scholarly contributions to the positive course of human survival, development and welfare? and 2) How far and in what direction should the United Nations University have moved by the mid-1990s? These questions will, of course, have to be answered within the evolving institutional framework of the UNU and taking into account the financial resources at its disposal.

The real challenge to scholarship today is to keep up with the changing nature of the issues that confront societies, and to endeavor to provide the knowledge base that will allow sensible responses to change to be formulated. There is no way of knowing whether the world is now in a process of disintegration or in a convulsive transition to a better state. But it is certain that choices made in the near future will determine which of these turns out to be true.

Two preoccupations: Life support and governance

Two general strands of inquiry are likely to dominate the work of the UNU in the medium term, arising in response to the features of the contemporary intellectual landscape and out of the broad research front established by the first MTP. One of these concerns the management of global life-support systems; the other concerns governance. The two strands are closely interwoven—indeed, inseparable. Both must be seen in the context of a crowded, competitive, interdependent and rapidly changing world.

In dealing with global life-support systems, the UNU will of course be dealing with natural resources—their productivity, sustainability and appropriate usage. It must relate resource systems to demographic changes such as population increase, urbanization, and migration as well as to scientific and technological advances. In many cases, tools for overcoming resource constraints exist, but have not made their way into the hands and minds of those who most need them. In other cases, operationally significant scientific knowledge is still lacking, meaning that decisions must be made in conditions of great scientific uncertainty.

Sectoral approaches to resource management have often proven to give only fragmentary guidance to resource policy. The UNU has experimented with the ecosystem approach, which has proven a useful corrective to the sectoral approach. But it too has limitations. Ecosystems have tended to be treated in isolation, while they are in fact inter-connected. Also, the concept of a resource system may need to expand to include the created environment—including the policy environment—as well as the natural environment. The food problem, for example, is not only one of cropland and rangeland, forests and fisheries. It includes not only the food that is produced but also the distribution systems, income levels and entitlements that determine who eats it.

Food and nutrition are among the most critical elements of life-support. The UNU has achieved recognition and credibility for its efforts to assist developing countries to deal with food and nutrition problems. These problems are inseparable from the other issues with which the University is concerned, such as poverty, health, the impact of new technologies, productivity, and the role and status of women.

In its activities that touch upon the management of global life-support systems, the UNU will have to work at three different levels: the theoretical level, the applied level, and the level of scholarly exchange. All are necessary to capitalize upon and expand new insights into the relationship between the geosphere and the biosphere, and the impact of human activities on both.

The management of life-support systems inevitably also involves problems of governance. Governance does not mean government, but rather the aggregate of forces, systems, institutions, disputes and arrangements by which human beings cooperate and compete. Problems of governance include, very broadly, the problems of violence, alienation, the fragmentation of polities along lines of group affiliations, the loss of legitimacy by governments, and the lack of accountability in economic, political and social systems, among others. The UNU should try to identify and illuminate the problems that are inherent in system-building, system-maintenance and system change, as well as the control and direction of systems that have no "head". Of particular importance are grass-roots social movements, which often merge with or blossom into irresistible forces for redemocratization or national liberation. Frameworks of human interaction as diverse as private financial markets, transnational corporations, labor migration, drug trafficking, resource regimes, religious movements, and cultural phenomena should be encompassed in the study of governance.

Within the domain of governance the UNU must also continue to deal with the crisis of the state and the state system. The crisis of the state is a crisis of the relationship between the state and its citizens, and of the relationships among citizens, within the context of powerful transnational processes. Weak political socialization has left many people, especially among the young, alienated from the political systems under which they live. In some cases, the state apparatus has been captured by a group or groups of special interests who use it to support their own parochial ends. Responses to alienation include political violence, with a resultant weakening of the moderate center and polarization of societies, as well as common criminality, which has become a dominant feature of urban life in many countries. There is more than enough combustible material in the debris of political systems to fuel the next generation of terrorists.

Perhaps the most fundamental problem of governance that has emerged in recent years is the growing division of humankind into two separate worlds of rich and poor. Today, this is a far more complex phenomenon than the geopolitical division of the world into North and South, industrialized and developing. Today, the well-to-do in Cairo, New Delhi, Lima and Lagos have far more in common, and communicate more easily, with the well-to-do in New York and Paris than they do with the poor in their own countries. This makes genuine discourse across the gap immensely complicated. When the major problem on the international agenda was the North-South divide, at least there were sovereign governments to speak for the unprivileged, even if their voices were often ignored. But who speaks for those who are ignored by or alienated from their own governments? Today, the discourse between the two worlds is steadily diminishing, and threatens to find its only forms in violence, or occasional spasms of charity.

The UNU programme must deal with these problems, not in terms of solutions, but in terms of finding the researchable issues the

illumination of which might contribute to a greater capacity to deal with problems. The purpose is to find ways in which the human and social costs of rapid change can be minimized, disparities reduced to tolerable levels, and the resilience of societies increased.

The two general strands of inquiry, the management of life support systems and problems of governance, will not appear in the second Medium-term Perspective as projects or programme areas. They are too wide-ranging to be so encompassed. But they should inform the research and training agenda of the UNU across its entire spectrum as the second MTP takes shape.

The next generation of issues for the UNU

What follows here is a very tentative demarcation of some of the areas of inquiry that the UNU will consider for inclusion in the second MTP.

Violence. The problem of violence pervades every level of human interaction from the family to the international system. The UNU should continue to research the conditions of security and vulnerability, the mechanisms of conflict resolution, and the effectiveness of forms of struggle against injustice that do not rely on violence.

Security and Development. In a global context of weakening political structures, random and indiscriminate use of violence, and the easy spill-over of conflicts from the national into the international arena and vice-versa, the concept of security needs to be developed in relation to societal evolution and growth. Empirical and analytical study is needed on the effect of the choice of developmental strategies on both internal and external security, as well as the effects of security policies on development prospects.

Science, technology and ethics. Science and technology have produced powerful tools for the betterment of the human condition. But only a tiny portion their potential has been put to use, especially for needs specific to the developing countries. Science and technology have been put at the service of military conquest far more massively and efficiently than they have been used for the conquest of poverty, illiteracy, ill health, injustice and so forth. Science and technology have also put unprecedented destructive power in the hands of human beings, and disrupted social structures and relationships.

The explosion of human knowledge and power has not been matched by a symmetrical explosion of human judgement, wisdom, compassion or empathy. This imbalance has permitted the application of science and technology in ways that are useless or even destructive. One has only to look at the crisis in Africa—the continent with the highest per

capita influx of technical experts in the world— to realize the extent of the waste.

Each scientific or technological advance brings new ethical dilemmas— but these have been treated as peripheral issues where they have been treated at all. Can science be managed for social purposes without destroying the creativity on which scientific advance depends? Is it realistic to keep science open and free while attempting to preserve the secrecy of technologies for the competitive advantage of particular countries or commercial interests? The devotion of vast scientific and technological resources to the development of the means of destruction and coercion is another ethical issue that cannot be ignored.

The scientific basis for innovation. Creativity and innovation in advanced fields are not possible without a solid knowledge base. The UNU should play a modest but significant role in putting modern science and technology in proper perspective, emphasizing the importance of the fundamental base of knowledge so that scientists in the developing countries are not placed in the role of mere technicians or consumers of advances made elsewhere. This implies that in research and training, basic sciences and mathematics must not be neglected in favor of the preferred fields of high technology such as biotechnology or microelectronics. A fusion of basic scientific training with cutting-edge research is the goal.

Sustainable development of natural resources. Both theoretical and empirical work are needed in order to arrive at a better understanding of the earth's metabolic system. The UNU has begun some pioneering work in the field of climatic, biotic and human interactions at both levels. The new systems science of geophysiology, which studies the integral, mutually sustaining relationships between living things and physical resources, is in its infancy. The complex feedback loops between, for example, the tropical forests, cloud formation, surface temperatures, and river flows suggest that the earth has intricate mechanisms for the regulation of life-support systems which are very poorly understood. The UNU should continue to contribute to a better understanding of these mechanisms, both through the development of the science of geophysiology and through micro-level case studies of ecosystems in various environmental conditions— for example tropical forests, cultivated drylands, and mountain watersheds.

The global commons. Resource realms that are not owned by anyone, such as the oceans and outer space, and non-material resources such as the radio spectrum, are increasingly subject to human exploitation and therefore increasingly important to human welfare. The developing countries, owing to relatively weak research capacities in most of them, have neither been able to participate in the exploitation of these new resource realms on equal terms, nor been able even to take a fully informed part in an increasingly sophisticated debate. The policy and management issues involved in the use of common resources have been defined by the industrialized countries, to the predictable neglect of Third World interests. The UNU should play a major role in initiating the training, research and policy debate that would strengthen the capabilities of the developing countries in the use of

the common resource realms in such fields as meteorology, remote sensing, resource management, communications, navigation and verification of international agreements. Such resources should be exploited in the spirit of well-managed commons: that is, for the mutual benefit of all who have claims— in the cases referred to here, all of humankind.

Energy and development. The UNU has built a substantial network of research on energy planning among institutions in developing countries. A focus on the demand side rather than the supply side of the energy equation distinguishes the UNU research on energy from most other programmes in this field, and has drawn substantial recognition and support because of its particular relevance to the needs of developing countries. This focus will continue in the second MTP. Field tests of the methodologies for energy planning developed in the first MTP should demonstrate their practical relevance, and lead into new issues. Among the new issues that are likely to be studied in the second MTP two stand out: 1) energy consumption patterns according to different income distribution patterns, settlement patterns, development strategies, and commitments to various kinds of physical and social infrastructure; and 2) governmental policies dealing with choice of technology, energy production and conservation, pricing and subsidy of energy resources, and institutional frameworks for energy policy-making. From the linkages between these two areas of research, the consequences for energy of specific development options should be made clearer, so that more soundly-based decisions can be made.

World hunger. Estimates of the numbers of people who are chronically undernourished range from half a billion, according to the FAO, to one billion, according to the World Bank. The core of the problem is that substantial portions of the world's population lack either the income to pay for adequate food or the means to produce it. Ironically, this is true at a time when a new agricultural revolution is beginning, based on advanced techniques in biotechnology. The UNU should help to ensure that scholars in the developing countries are equipped to participate in this scientific revolution and to apply its discoveries to the needs of their own societies.

As this prospect unfolds, however, the problems that are not susceptible to laboratory solutions should be kept in mind. These are the political and institutional problems that constrain both food production and the purchasing power of would-be consumers, such as inequitable land-tenure systems, exploitative tenancy relationships, food-pricing policies that act as disincentives to production, the neglect of rural infrastructure and services, the over-regulation of markets, and so forth. These issues must be dealt with at the policy level. There are also social and cultural factors that intervene in the implementation of programmes designed to improve nutrition and health. The UNU, with the support of WHO and UNICEF, has pioneered in involving social scientists in the identification and analysis of such factors.

At the scientific level, UNU fellowships should continue to play the important role established in the past ten years in strengthening the multidisciplinary competence of the staffs of institutions in

developing countries, so that they can conduct research, training, policy formulation and dissemination of knowledge in the field of food and nutrition. A further role for the UNU is to organize methods for making essential scientific information available in developing countries. Thus there are four types of work on world hunger that the UNU should be involved in during the second MTP: policy analysis, social science aspects of food and nutrition problems, training for institution-building, and the construction and consolidation of networks for the communication of scientific data.

The global economy. Many of the issues that have been discussed above are, at least in part, economic issues. However the UNU will continue in the medium term to examine explicitly the workings of the global economy. It has become alarmingly possible in the last few years that, even with the best macroeconomic policies in place, growth in the developing world will be too slow to resolve the employment problem in the developing countries. This prospect throws a spotlight on questions such as employment-oriented industrialization strategies for the Third World, and the relationship between technology, employment, equity and purchasing power. The violent fluctuations in the oil market, and the dramatic decline of commodity prices in general, suggest an urgent need for study of the changing role of the commodity sector in the international economy and its impact on trade and financial relations. Of all the disappointments of the post-war development effort, the failure to come to grips with poverty is the most bleak. The prevailing asymmetry in levels of living, among countries and within them, is a drag on the prosperity of the entire international system. For all the promising attempts to shift the focus of economic policy considerations from a top-down to a bottom-up approach or to emphasize basic human needs, there is still no alternative theory of economic development that can support a more humane policy framework. The UNU in the years to come should be at the forefront of the effort to develop such a framework.

New rural-urban configurations. The urban crisis, predicted with some regularity for the past ten years and more, has now arrived. It is, in part, a result of the failure of rural development. The urban crisis and the rural crisis are normally separated, both analytically and functionally. Yet they are two parts of a continuum and should be studied as such. For example, artificially low agricultural prices (often imposed for the benefit of urban consumers) encourage emigration from rural areas, swelling already unmanageable cities and stripping the rural areas of their young and ambitious people. At the same time, low agricultural prices dampen the potential rural market for manufactured goods and thus generally slow industrial growth in the nation as a whole. The type and form of rural industrialization, or lack of it, also has great bearing both upon the influx of migrants to the cities, and upon the ability of rural areas to provide a market for urban manufactures. Dispersed rural industrial production systems should be examined both for their direct and indirect effects on employment and for their effects on rural-urban migration. The prospects for such systems hinge on a systematic effort to modernize existing technologies and integrate traditional with advanced technologies. It also depends on linking up traditional crafts and social infrastructures with modern

marketing and quality control, taking advantage of computer-assisted methods. At the same time, the employment patterns in urban industries and services should be closely examined to see how job creation can be linked with efforts to make the cities more conservative in their use of resources.

Youth. The structure of demographic growth in the developing world has produced an age distribution heavily weighted toward the young. They are approaching maturity in an age of endemic violence, unemployment and alienation. They are victims of as well as participants in these phenomena, and the process of their socialization will determine the direction of political, social and economic developments in the years to come. Prevailing systems of formal education separate the young from responsibility, and are thus often incompatible with the realities of life for many young people. For many youths, economic responsibility, family responsibility and responsibilities in their communities begin in fact far earlier than they are accorded formal civic and political responsibility. A more flexible, interwoven pattern of education, work, retraining, leisure and community service should be explored as a response to the needs and the energies of youth.

The perspectives of youth, in the North as well as the South, should be reflected throughout the future programme of the UNU. But the University should also develop a series of research and training activities designed specifically to foster in young leaders the ability to grasp and come to terms with the linkages between the problems they encounter in their immediate surroundings and the immensely complex global problems of governance and life-support systems that they will be called upon to face as their generation matures.

The learning society. Contemporary discourse on the emerging information society is almost exclusively devoted to the competitive development and introduction of new technologies and services. It is, in other words, preoccupied with the "supply side". It is becoming clear, however, that the next generation of issues concerns the patterns of use and the efficacy of the use of information— that is to say, the demand side. The concepts and practices linked to developments encapsulated by expressions such as "the communications revolution" and "the information society" are limited, failing to capture the comprehensive nature of the learning needs of all societies. The needs of today require a selective and integrative application of both new and traditional sources of information, taking into account the changes in cultural processes brought about by developments in communications.

The uneven spread of new communications and informatics technologies threaten to exacerbate the divide between the haves and have-nots by creating a new subdivision between knows and know-nots. The challenge that the UNU will try to help meet in the second MTP is to diffuse access to information technologies— both the new and the traditional— throughout the widest possible range of communities. This effort will include nurturing in developing countries the capability to develop sophisticated computer software appropriate for the needs of developing societies. At the same time, the University must call

attention to the fact that the immense potentialities of the new technologies can be used for constructive or destructive purposes: to empower people or increase centralized control over them. The aim is to build what has been described as a "poor man's global learning system".

Cultural resilience and creativity. The more society is shaped by technology, the more crucial is the humanistic yardstick, the strong sense of values that human cultures, at their best, produce. Confidence in one's culture is a precondition for creativity. In a world of exceedingly rapid change, questions of the preservation, regeneration and adaptability of cultures assume great urgency. When does adaptation lead to loss of identity, or preservation to stagnation? It is necessary to begin the attempt to answer these questions with a recognition of the complexity of human cultures: what are the factors that stimulate creative responses to change, that encourage cultures to reinterpret themselves in response to external stimuli? Both adaptive and maladaptive elements exist in every culture. There are values imbedded in many cultures, modern and transitional as well as traditional, that are incompatible with other values held to be valid across cultures, such as equal access to education for women. There are numerous practices that are detrimental to health, productivity or human rights. To maintain diversity and recognize the validity of culturally specific world-views and practices in the face of powerful homogenizing tendencies should be a major concern of the UNU in the second MTP.

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The nature and shape of the global problems with whose study the UNU is charged keep changing; the University must continually ask itself if it is still looking at the salient issues. Its effectiveness will be measured by the quality and relevance of its work, and by its intellectual and physical presence in various parts of the world.