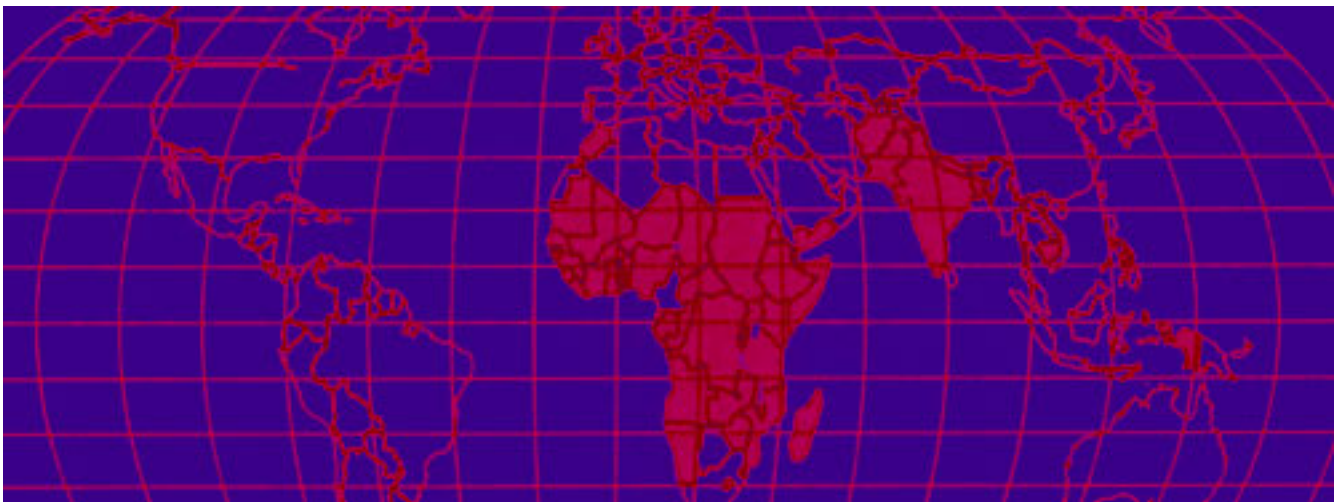




## Resources and Population

### Natural, Institutional, and Demographic Dimensions of Development



A Study Week on *Resources and Population* was held at the Pontifical Academy of Sciences on 17-22 November 1991. Its purpose was to examine the relationship between resources and population, particularly within the context of mass poverty, rapid population growth, and environmental deterioration. The objective was to bring the best available scientific evidence to bear on this relationship.

Since the beginning of the twentieth century the world's population has increased threefold, from about 1.7 billion to its present size of well over 5 billion. Attempts to absorb this historically unprecedented demographic growth at an improved average level of well-being have met with partial success. Gains have been achieved through the application of human ingenuity and labor, using the advances of science to develop more effective technologies for production and for harnessing natural resources more intensively for human use.

The expansion of human population on such a scale has attendant contradictions and problems. According to a recent World Bank Report, more than one billion people – about one-third of the total population of the developing world – live in poverty, that is, their annual per capita consumption is less than US\$370. Thus, advances in human welfare, exemplified by one of the indicators of improvement in the quality of life, increased longevity, have not contributed to eliminating mass poverty. Sharply diverging rates of population growth have been accompanied by increasing disparities in income and in the quality of life between the economically more advanced countries and the so-called developing world. Concern is also warranted as to the implications of continued rapid demographic growth in many of the poorer countries, particularly those less well endowed with natural resources and, as a result of past history, lacking adequate development of

their human resources.

The subject matter of the Study Week called for a historical perspective. The present status of the relationship between population and resources was investigated by taking into account past experience and observed trends – broadly those covering the last 100 years – and especially the 40 years that have elapsed since mid-century (when the global population was 2.5 billion). Discussion of future prospects probed an equally ambitiously designated time span: roughly the next 100 years, but with emphasis on the next 30 to 40 years for which trends in population, resources, and technology can be foreseen with greater confidence. The Study Week drew on insights from a diversity of disciplinary fields, and involved experts from demography and from the physical, biological, political, economic, anthropological, religious, cultural, and health sciences. Among the topics that were discussed, the first was the demographic dimension of the population-resources issue. Rapid population growth has been triggered by a decline in human mortality, first in the Western world, but now also experienced in Asia, Latin America, and Africa. In the West an adjustment in fertility followed after a time lag: in every Western country in which mortality (hence death rates) declined, levels of fertility (that is, birth rates) have also fallen. This latter process has also affected or is now affecting much of the developing world, although to a varying extent and with varying speed. The result of these changes has been rightly characterized as a “demographic revolution”: it has not only changed population size but is radically transforming its age structure and its spatial distribution. Rapid urbanization is one of the conspicuous aspects of these changes. Unequal rates of population growth and economic change have also generated movements of people between countries and between world regions. Thus trends in international migration were also examined as part of recent and expected future demographic change.

A second broad topic addressed during the Study Week was the past and present availability of resources and expected future trends. The concept of resources was defined to embrace not only those drawn from the physical world but also as provided by the human being’s capacity to transform physical resources for human use: science and technology, and human skills and aptitudes at large. Attention was focused on those resources that are recognized to be the most critical for human well-being. Among physical resources these include soil, water, and energy. Among human resources, emphasis was placed on the role of education (including the changing roles of women) and on the capacity of people to cooperate effectively in social organization and economic management.

The final topic of the Study Week was the significance for human life of past and future trends in population and resources. There was particular emphasis on assessing welfare trends in a global perspective: especially international inequalities in welfare and their meaning, the conditions responsible for these differences, and the prospects of their being lessened in the coming decades. In addition, four salient aspects of social well-being were examined. These are problems that lie in the forefront of developmental concerns or are likely to become such in the near future: (1) providing employment for the young generations entering the labor force; (2) providing the elderly population with material and social support; (3) eliminating all extreme and dehumanizing forms of material poverty; and (4) providing adequate energy resources and nutritional security for all inhabitants of the earth.

Thus, the Study Week sought to identify, analyze, and understand the elements relevant to the problems of “resources” (both material and human) and “population”, and to assess the situation relative to mass poverty which, combined with rapid population growth, can seriously endanger the environment, the quality of life, and humanity itself. Understanding these mutual relationships is essential if effective development policies are to be adopted.

The Pontifical Academy, by means of this Study Week, also sought to assemble a reference base that is factual, amply documented, and as scientifically indisputable as possible, and one that can be submitted to religious authorities for their information. The objective of this Study Week was primarily that of gathering facts and findings from multidisciplinary analysis. Possible instruments and means of intervention to counter existing North-South imbalances were, however, also examined in an atmosphere of open discussion and free exchange.

In the final instance, and with a view to countering the enduring imbalance between North and South, the Study Week sought to highlight a fundamental necessity: that of striving to ameliorate the negative effects of individual and societal egotism and to further the true well-being of humankind.

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