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An Indian Pugwash Monograph

Scientific Cooperation for Development

SEARCH FOR NEW DIRECTIONS

SENAKE BANDARANAYAKE

Editors
P J Lavakare
Ashok Parthasarathi
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SENAKE BANDARANAYAKE

0.0 Historical background, definition, problematic

0.1 In the last 100 years or so the countries of the Third World have begun a historic transition from a pre-modern stage of social, economic and cultural evolution. In most cases this great change was initiated during a period when our countries were being dominated and occupied by colonialist invaders from the advanced industrial nations. Despite the tremendous damage and the irreparable loss of national wealth and national resources which we sustained under colonialism—and also partly as a consequence of the colonial impact—our countries and our people began, during this period to acquire and to develop an extremely high level of modern academic, scientific and technological skills. In many of the developing nations we can say that—whatever our level of poverty and backwardness—we have today established, in more than a merely basic way, an infrastructure of knowledge generally comparable with that of any other late 20th century society. If we put this century-old development of knowledge in a historical perspective, we can see that it represents a tremendous leap in consciousness. It is no less than a fundamental scientific transformation when compared with the world outlook and the levels of scientific knowledge achieved by our traditional society. Viewed on a global scale, the collective academic scientific and technological resources

*Paper presented at Special International Session on "Scientific & Technological Cooperation among the Non-Aligned Countries" Sri Lanka Association for the Advancement of Science, Colombo, 1976.

of the Third World constitute a vast and immensely powerful force for man's scientific and technological progress.

0.2 In each of our countries these modern developments should be seen as a very important aspect of national wealth. They are the product not only of a few individuals or even the scholarly and scientific community as a whole, but of the entire working people of our countries who have created and nourished the basic social and economic conditions for the development of these level of knowledge and scholarship. In turn, the scholars, scientists and technologists have produced a rich fabric of skills, traditions and academic disciplines which have contributed substantially to the economic and cultural formation of our countries. We may use the term *national academic resources* to formulate a concept which includes:

- (i) the social and historical processes described above
- (ii) the national academic and scientific product as a whole
- (iii) the fields of operation, the "raw materials" and the potential development of academic and scientific work that lies in the future.

0.3 The character and pace of academic and scientific resource development has been and is still determined by historical factors, such as the backwardness of our traditional societies and the distortions created and still being created by colonialism and neo-colonialism. In order to break through these constraints we should continually develop new modes of organization and control of academic resources. This often demands from us a complete change of approach and attitude to a number of inter-connected factors, fresh theoretical orientation and new practical and experimental methods. The objective of this paper is merely to raise some of the major issues involved in the formation of policy and to pose—at a high level of generalization—some of the outstanding questions concerning the domination of our academic and scientific structures by the advanced industrial countries. My focus of attention is largely directed at the academic sphere, particularly with reference to educational and research activities in the universities. These observations however apply, with equal validity, to other areas of academic and scientific activity.

0.4 In dealing with the development of our academic resources, the *principal question* that arises is this: how can we, as fairly small,