

Science and Technology Policy –2001

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Preamble

Science and technology have been an integral part of Indian civilization and culture. India's traditions in science and technology stretch over several millenia and have been founded on the principle of universal harmony and respect for all creation. In the half century since independence, India and its people have been committed to the task of promoting the spread of science and have recognized the key role of technology as one of the most important elements of national development. The Scientific Policy Resolution of 1958 and the Technology Policy Statement of 1983 enunciated the principles on which the growth of science and technology in India has been based over the past several decades and continue to inspire our endeavours even today. These policies have emphasized self reliance and sustainable and equitable development. We stand today on the threshold of a new century, at a time when the advance of science is both tumultuous and spectacular. We live in a world where political, social and economic equations have been dramatically transformed in the last decade. It is therefore necessary for the Government and people of India to reaffirm their commitment to the growth of science and technology, which in turn must spark and fuel the march of national development.

Science has profoundly influenced modern civilization. Science has provided us remarkable insights into every aspect of the world we live in and intriguing glimpses of a larger universe. The major scientific revolutions of the 20th century have opened the doors to many remarkable technologies that promise to herald new eras in the fields of health, agriculture, communication and energy, among many others. Science and technology are

but two sides of the same coin; unfettered and creative science invariably gives birth to innovative technologies. Over the past four centuries science has advanced rapidly and has become a part of modern culture, while technology holds the keys to prosperity. In the drive to provide basic needs and to raise the quality of life of our people, create wealth and to be globally competitive, in an increasingly technologically sophisticated world, and to harness our natural resources and to protect the environment in a sustainable manner, we recognize the central role of science and technology.

Policy Objectives

Recognizing that science and technology are powerful instruments in the tasks of national reconstruction, economic resurgence and maintenance of national security the Government of India, therefore, enunciates the following elements of its science and technology policy:

- (i) To promote the teaching and practice of all disciplines of science at school and college levels, reaching out to all creative talent in the country, to foster scientific research in the Universities and national institutions, which have a multiplier effect, and to emphasize the critical and essential role of science in the sphere of higher education.
- (ii) To encourage the participation of all sections of the population in science and technology endeavours and to ensure the creation of conditions that permit the full participation of women scientists and technologists in all areas of research and development.

- (iii) To ensure that academic and R & D institutions function with the greatest autonomy and accountability, so that an ambience for creative work of the highest order is encouraged and to build and maintain centres of excellence, which will raise the levels of work in selected areas to the highest international standards.
- (iv) To integrate the teaching and practice of science and technology with the widely prevalent and extensive knowledge acquired over the long civilizational experience of India, with a view to ensure the creative participation of large sections of our society in innovation and wealth generation.
- (v) To harness modern scientific and technological advances so that rapid progress is made in the field of agriculture, to ensure food and water security, in a sustainable way and in the field of health, to bring modern health care to the people of the country.
- (vi) To encourage the highest level of innovation and research and development in industry and to promote close and productive interactions between private and public institutions in science and technology.
- (vii) To integrate science and technology with all spheres of national activity in order to enhance India's global competitiveness, to ensure continued development of national infrastructure and to safeguard national security.
- (viii) To exploit the full power of science and technology for the mitigation of natural hazards, particularly, earthquakes, floods, cyclones and drought.

- (ix) To use science and technology as a vehicle for international cooperation and collaboration and to promote the pooling and sharing of material and intellectual resources in order to achieve common goals.

The Government of India clearly recognizes that these objectives will be best realized by a dynamic and flexible science and technology policy, which can readily adapt to a rapidly changing world environment. It is the purpose of this policy, to ensure that science and technology, as practiced by our high calibre scientists and technologists, contributes to the economic and social uplift of our people, while maintaining our many traditional values. Through this science and technology policy, the Government reiterates India's commitment to participate as an equal and vigorous partner in the task of harnessing the advances in science and technology for the benefit of mankind.