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THE MAIN DIMENSIONS OF THE
NEW TECHNOLOGY POLICY

*See Carta's
noting, last
page*

India has made substantial technological advances in many areas of economic activity despite major resource constraints. In some areas, her current capabilities are contemporaneous with those of technologically advanced nations. These achievements have been made possible by wise investments and policies that have furthered the development of indigenous technological capacity and capability. Such investments and continued sustained policy-support are crucial to our economic well-being and security.

Technology policy is implicit in the restructuring policy which is designed to lead to a qualitative strengthening of the economy. However the challenge is to fashion technology policy in such a way as to make it integral to economic planning and implementation.

Technology Policy is inter-dependently enmeshed with social, economic, agricultural, environmental, and industrial policies. Indeed Technology Policy cannot be effective without the realisation of this inter-dependence. Further, technology policies cannot be considered in isolation from science policies: basic research has often provided the "seed" for remarkable leaps in technological development, particularly in such areas as biotechnology.

Therefore, what we now need is a full articulation of science & technology as incorporated into all policies, economic and social.

The Government will determine on an ongoing basis, socio-economic priorities and investments that are designed to achieve the socio-economic goals. Unlike in the past, "technology" (both domestically generated and imported) will be 'organically' incorporated into both the planned and market-determined investments in the different socio-economic sectors of the Plan. This will be done through the planning process in the following way.

First: While formulating in each sector Plan, the technological choices, the investments, and the S&T necessary for that sector, shall be made explicit in the corresponding sector-plan. Thus, for example, the technological choices and S&T investments relating to the Power Sector shall be an integral part of the Plan for the Power Sector.

Second: For market-determined investments and technological activity, the new Technology Policy will directly articulate those instruments of public policy which will maximise the demand for domestic capabilities and capacities in S&T and minimise those which, inevitably, have to be imported.

Third: To so plan, programme and provide administrative guidance Government will prepare investment, asset-

maintenance, technology-upgradation, productivity-improvement, energy-saving and environment protection plans. The relevant technological choices and R&D/S&T programmes will be imbedded in those plans. To do this will require new institutional arrangements which will be spelt-out and implemented.

Fourth: Government will evolve new institutional mechanisms which will enable state-supported industrial R&D to fructify quickly and efficiently. Among these mechanisms will be those which locate the prime-focus of state-supported industry-oriented R&D within the enterprises (public or private) themselves. Such state-support will be complemented by funding from the industries themselves, through a re-formulation of the existing legislation on the R&D Cess.

India has made rapid technological advances despite major resource constraints in the firm belief that development in indigenous technological capacity is the main long-term determinant of our economic growth.

Technology policy should be part of a restructuring policy which will then lead to a qualitative strengthening of the economy.

The challenge is to give a whole new dimension to technology policy and to redefine it into an integrative overall policy.

The inherent nature of science-in policy analysis is that most problems are by definition interdisciplinary. Solutions to science policy questions require interdisciplinary expertise for their articulation. If this analysis is correct, this would ensure technology oriented policies to rekindle economic growth.

The interface of technology in policy is integral to all Social Sciences. Only when Science is incorporated into policy will the process of innovation be appropriate for the stimulation and direction of its economy. Certain issues need to be analysed to explain the interaction of social forces and to identify the causal factors. The analysis can prescribe possible remedial policies and their consequences thereof.

To translate social goals into effective policy requires the development of a technological capacity; a decision making structure that is well informed about technology matters and is able to respond quickly; and that a well-articulated technology policy is crucially important to government decision making.

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regd on
Science
Technology
&
Development

No longer should
TP be separated from
other policy fields. Rather it
shd be seen as an
integrated element
in all policy areas
where the influences of
technologies
are felt