

Key note address by Smt. D. Purandeswari, MoS (HRD).
On the occasion of launching of Technology Development Centre on 21st
April, 2006 at Mekaster auditorium, IETE building, Osmania University
Campus, Hyderabad.

It gives me a sense of pleasure in being invited as a Chief Guest for launching The Technology Centre in this historic city of Hyderabad. As you are aware Hyderabad is an upcoming city with a glorious past as an important center of culture and civilization. The former Chief Minister Shri N.T. Rama Rao made an effective contribution for the all-round development not only of this state of Andhra Pradesh but also of the city of which we are all proud of. The move by organizers to open a center here therefore did not come a day too early, I thank them from the core of my heart for launching the first center in this august city.

The transition from a traditional to a modern industrial society is accompanied by a relative and absolute decrease in the agricultural labour force: the concomitant growth of an industrial sector and the rise of a modern highly skilled service sector. The developed and more specifically developing countries are experiencing an area shift in their employment structure from primary to secondary and tertiary sectors. It is no wonder therefore that developing economies like China and India are anxious to leapfrog industrial economy into the knowledge-based economy through determined efforts.

According to the world- renowned historian Arnold Toynbee, the present century will be chiefly remembered not as an age of political conflicts or technical innovations, but as an age in which human society dared to think of the welfare of the whole human race as a practical objective, primarily

through economic growth. The most important aspect of such growth is industrialization. It is a process of physical or real capital formation, introducing science and technology to change the existing methods of production. In particular, capital goods industries, such as railways, shipping, automobiles, electricity and machine tools, open up new vistas and wide opportunities for better utilization of existing resources. This creates a series of strategically production functions, which greatly intensify the organizational changes accompanying the rise of the modern economic system. Ultimately these production functions become so widespread as to bring about a radical change both in production and social structure of a country. In this wider sense, industrialization is a process of capitalization and increasing productivity. Its implications are so many and its significance to modern economic process is so close, that it is often synonymously used for economic growth.

The innovations in science and technology and their utilization for development and growth will make possible this paradigm shift in human welfare and achieves knowledge explosion. The present century is a century of knowledge explosion. If knowledge is power, accelerated growth of knowledge will usher in much required social change for human progress and happiness. Indeed as observed by famous economist Alfred Marshal 'knowledge is our most powerful engine of production and growth'

Accumulated knowledge constitutes the true capital of a country opening up opportunities for invention, innovation, evolving of more productive methods and technological transformation of society. The benefits of such knowledge can be made available to society through technical training programmes and extension services. Thus, the transmission of accumulated knowledge enriches the human resources in a country

comprising both physical capital and human capital. Human capital comprehends brain capital, the elite and high level manpower representing the leaders or innovators in different walks of life. Although economic growth is the result of human effort, what matters is the quality of human effort based on improved methods of organization and improved techniques of production. Mere physical effort may not enhance the growth rate of an economy. The greatest growth occurs in societies where men have an eye to the economic change and are willing to stir themselves to seize it. Hence the quality of human resources and their effort matters much for achieving higher rate of economic growth in a country.

The cause of Japanese industrial success is the effective application of technology, supported by diligent choice, creative assimilation and adaptation, development, continuous improvement, effective diffusion and finding new applications of the existing technologies. With their characteristic ingenuity the Japanese have been able to improve on the imported technology from U.S.A and Europe by investing heavily on research and development. Though a latecomer, Japan has maximized the benefits of transferred technology to strengthen the international competition of its domestic industry to overcome the handicaps and ultimately emerged as one of the world leaders in advanced technology and innovation. Japan is no a large- scale exporter of modern technology. While I am not to opposed to technology transfer from foreign countries, I would nevertheless emphasize that we follow the Japanese methodology and not blindly depend on foreign technology; if we do so, we would not be able to sustain on higher rate of growth.

To maximize economic profit there should be a complete integration between the scientific research and industrial development: in fact both

these activities should go hand in hand. The TDC should intensify its efforts to promote industry focused research and ensure their immediate practical applications. It should also act as a conduit between academic centers of research excellence and global industry to integrate and synergise their research efforts and place students in industrial research centers to facilitate quality research. The center should also form strategic partnership, wherever possible with international institutions with a record for excellence. Some of the functions with the TDC is proposing to initiate now are being currently handled by the Department of Scientific and Industrial Research of the Government of India and also by the CSIR. But since there is a yawning gap between the demands of the industry and the supply of adequate quality research papers functionally suitable to the industry there is a huge scope for the organizations like TDC to make effective contribution in this field. I will also suggest more centers should be opened by the TDC in Andhra Pradesh and in other States also to give the center a cosmopolitan character.

It would be an ideal if a tripartite alliance between Industry, T.D. Centre and the universities could be forged wherever possible in order to ensure well developed research projects. In the wake of liberalization and privatization, the demands of the economy would call for greater efforts by private agencies to foster industry focused research projects. I hope the agencies like T.D.C. would fulfill this need to augment industrial growth and production in the country. With these words, I launch the formal opening of Technology Development Centre.

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