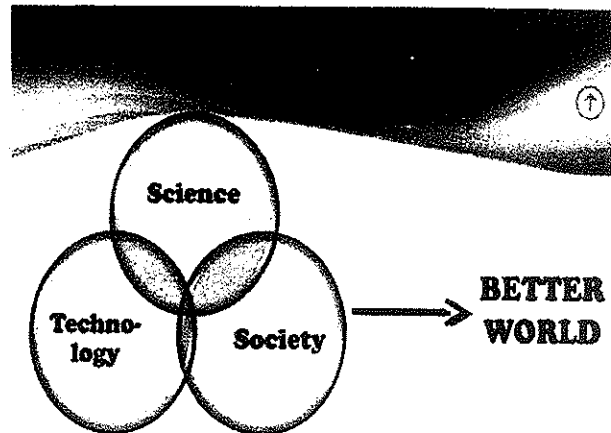


## **SCIENCE AND TECHNOLOGY IN INDIA**

### **INTRODUCTION**

**Science and Technology** are fundamentally altering the way people live, connect, communicate and transact, with profound effects on economic development. Science and technology are critical drivers to development because technological and scientific revolutions and their embracement by society led to economic advances, improvements in health systems, education and infrastructure.

The technological revolutions of the 21st century are emerging from entirely new sectors, based on microprocessors, telecommunications, biotechnology and nano-technology. Products are transforming business practices across the economy, as well as the lives of all who have access to their effects. The most remarkable breakthroughs will come from the interaction of insights and applications arising when these technologies converge.



Access and application are critical. Service and technology are the differentiators between countries that can tackle poverty effectively by growing and developing their economies and those that are not.

The extent to which developing economies emerge as economic powerhouses depend on their ability to grasp and apply insights from science and technology and use them creatively. Innovation is the primary driver of technological growth and drives higher living standards

### **EVOLUTION OF SCIENCE AND TECHNOLOGY**

Science & Technology (S&T) as an integral part of the Indian culture has been enabling force behind the longevity of India's civilisation. It not only allowed to question natural landscape with a sense of enquiry but also opened the gate to prosperity by helping society to lead technologically driven life.

#### **Indus Valley Civilisation**

The archaeological remains at various sites of the Indus Valley Civilization allow us to know about its technological progress. The vital scientific developments and achievements by Indus Valley people include:

- **Architecture and Civil Engineering** - The well planned urban centres based on definite layout pattern with scientific roads; drainage system (with use of corbel technique); public structures (like granaries and great bath); world's first tidal port at the head of Gulf of Cambay in Gujarat were much ahead of times and precursor to the modern concept of architecture and civil engineering.
- **Irrigation System** - They had an innovative irrigation system of artificial reservoirs that led them to achieve size and prosperity.
- **Weights, Measurement and Metallurgy** - There were standardised systems of weights and measurements along with calibration in multiple subdivisions.
- **Medical Science** - It was announced in Journal Nature in April 2006 that oldest evidence in human history for the drilling of a tooth in vivo, that is, in a living person, was found in Mehrgarh around