

INDIGENOUS DEVELOPMENT OF SCIENCE AND TECHNOLOGY: A BRIGHT FUTURE AHEAD

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ABSTRACT

India a developing nation has taken a leap in terms of technology and development of human as well as capital resources. It is proving its metal in global trade as well as agricultural sector. With NEW ECONOMIC POLICY (L.P.G) various sectors have transformed such as Nuclear Science, Defense, IT, Medical, etc. Technological up gradation has given a boost to Indian economy. Life expectancy ratio is increasing due to improvement in medical science and obtaining better equipments. Living standards of people is increasing as well as employment ratio is showing an increment .Output ratio through Make in India scheme has also increased. Indigenous development of our nation is the result of up grading science and technology for nation's betterment.

KEYWORDS: Developing Nation, Science, Technology, Economy, Government Programmes, Development

INTRODUCTION

Development of new affordable indigenous technologies in various areas of Science and Technology has helped India establish a strong base in Research and Development sector. India has progressed significantly in sectors of Agriculture, IT, Defense, Nuclear Science and Astronomy. New indigenous technologies for public like vaccines, test for molecular diagnosis, development of seed varieties and post harvest technologies indigenous cryogenic engine, air breathing propulsion, microwave remote sensing, deep space tracking antenna system etc have flourished and reactor technology have demonstrated better management; focused directions of Indian research.

India has turned out to be an emerging country in the world in various sectors. It is a key element of economic growth. It ranks 3rd in the world in nano science and 5th in Chemistry regarding scientific publications. Indigenous development is making India progress towards a better nation.



Figure 1



Figure 2

GOVERNMENT INITIATIVES

- Government has put in several systems to promote S&T in the country and create a scientific temperament among people. These measures include successive increase in plan allocations for Scientific Departments / Agencies, induction of new and attractive fellowships, strengthening infrastructure for R&D, encouraging public-private R&D partnerships, launching mission mode programmes etc. In jurisdiction of our honorable Prime Minister, Shri. Narendra Modi India has extended hands towards improvement in foreign trade and policies. This led to a boost in economy and improvement in foreign relations.
- Through Make in India scheme employment ratio is expected to increase and also to boost economy by incoming of more foreign exchange. It also results in better technology and techniques of production helping India compete at global level.
- Planetary missions, National Level Exhibition and Project Competition under INSPIRE, exhibition train-‘Science Express’, National Science Day, regular workshops being organized, etc. are provisions done to improve space research technology and to spread awareness amongst youth and people.



Figure 3

- There have been a lot of investments and development in different sectors such as agriculture, healthcare, space research. India is gradually becoming self-reliant in nuclear technology through the commercial success of the indigenous reactors.
- The Ministry of Science and Technology and Ministry of New and Renewable Energy Resources are collaborating through joint expert committee meetings, inter-ministerial consultations and delegations to articulate research and development priorities to come up with energy efficient and environment friendly technologies.
- India's leading research centers are seeking more scientific partnerships for the country's remote areas, particularly the northeastern states while working with the Indo-French Centre for the Promotion of Advanced Research.

ROAD AHEAD

National Council of Science Museums (NCSM), an autonomous organization under the Union Ministry of Culture is engaged in establishment of Science Centers throughout the country. Proposals from various state governments have also been received for setting up of Science Cities. The Science Centers/Cities projects are taken up by NCSM in a phased manner depending upon the availability of resources, project handling capacity of NCSM and the existing level of science centre activities in that particular State. A required step to be taken to assure the self- reliance and technological independence is planned-“Vision S&T 2020” to develop first, publicly accessible Science and Technology policy.

CONCLUSIONS

India is aggressively working towards establishing itself as a leader in industrialization and technological development. There will likely be significant developments in the nuclear energy sector as India looks to increase its nuclear capacity. There is also an indication that nanotechnology will change the face of the Indian pharmaceutical industry. The agriculture sector will also see a major revamp with the government investing heavily for the technology driven Green Revolution. India's position in research publications has improved from 10th position in 2006 to 9th position in 2010 which indeed is a proof that science sector is improving and indeed is on the track of success.

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