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Science and technology for sustainable growth and development in current Indian scenario

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Abstract
Exponential Growth of Technology in India has played a significant role in all round development and growth of economy in our country. Sustainable development is an emerging area, because it addresses the socio economic development of every human being. India has opted for a judicious mix of indigenous and imported technology. Purchase of technology is commonly called "Technology transfer" and it is generally covered by a technology transfer agreement. This work focuses on the key areas of sustainable developments and scientific contributions towards it. This write-up almost identifies the critical issues or problems associated with sustainable development. Identifying the problems and giving the necessary recommendations for solving the problems encountered. The development of any country is almost depends on the advancement in developing the technology in different fields. The revolution takes place between eighteenth and nineteenth centuries makes a world to think differently in the science and technology steam engines, textile, printing etc. Countries that take part across this industrial revolution are developed much more than other countries because the machine occupies the work more from men. Further advancements in twentieth century in space, aircraft, computers, biotech and information technology are boost the developed nations much advanced. The new technology with young minds creates a synergy both in knowledge and resource utilization.

Keywords: sustainable development, science and technology, government of India, nuclear technology, biotechnology, immediate technology

Introduction
'Technology transfer' means the use of knowledge and when we talk about transfer of the technology, we really mean the transfer of knowledge by way of an agreement between the states or companies. 'Transfer' does not mean the movement or delivery; transfer can only happen if technology is used. So, it is application of technology and considered as process by which technology developed for one purpose is used either in different applications or by a new user. The technology what we have utilizing today supports the necessity for human comfortable life zone. The field in improvements is basically takes place on Medicine, Energy, Agriculture and Resource Management which makes greater impact on the society. Sound decision making and economic planning are necessary for nation's sustainable development. The global look must address the scientists and entrepreneurs from all over the nations for towards the improvement of sustainability.

Nuclear Technology
Technology can either be developed through own research and development or it can be purchased through indigenous or imported sources. Radiation techniques are used in agriculture for producing high yields with better crops. The technique called Nuclear Sterilization (NS) is used to eradicate the tests flies and have also been used to control the harmful effects of pesticides for human being. Radiation techniques are also has an application to preserve food by eliminating bacteria and pathogens that can cause disease. It also prevents the harmful effects of chemicals that are presently being used in fumigation of food. For effective sustainable agriculture and to get maximum benefits such as water and fertilizer the nuclear techniques are used to optimize the intake of water and fertilizer-uptake. This technique is also used for mapping of micronutrients. Nuclear techniques are used in mutation-breeding have resulted in producing improved varieties of cotton, wheat, chickpeas, mung beans and rice.

Human health and medicine
Human health is one of the key factor that must be addressed today's sustainable development. Nuclear techniques are used to diagnose and treatment of diseases. Nowadays it is one of the powerful diagnostic techniques. Radioscopic techniques are used in the area of health science in treatment of cancer as the cases of cancer are increasing rapidly all over the world. Gamma irradiation facility is used for sterilizing the medical equipment.

Water resources
Clean water is the need of the hour all over the world and an increasing awareness in the world that fresh water is a precious and limited resource. Ground water is shrinking due to over-exploitation and being lost due to degradation of water –quality from pollution cause by humans. The standard of living and over population are the main demand for produce clean water. Global warming is also one of the additional inputs for demand for water. Sustainable improvement in freshwater resources requires appropriate technologies like radioactive isotopes and radioactive tracers.

Industry

Non-destructive Testing (NDT) is a quality control technique and quality assurance is the key requirement in modern industry. Services using nuclear control techniques are being used in a number of industries, including oil sectors, fertilizers and chemical plants. The services are also extendable to hydroelectric and thermal power plants. The quality assurance laboratories using nuclear analytical techniques are essential requirements in industries.

Information technology

Information technology plays a vital role in today's societal importance, knowledge and intelligence empowers both people and machines with information. The utilization of machines, men, method and money contributes effective sustainable development. Empowered people are playing the role as citizens to support environmentally sustainable society similarly empowered machines have the knowledge to minimize energy and material use, wastes and pollutants. Information technology improves the facilities faster, cheaper and equitable and resource efficient access to information, improving learning environment for people.

Biotechnology

The fields of biotechnology are a multidisciplinary nature and contain many scientific approaches on it. It began in 70‟s with genetics and DNA technology. The genetic engineering is covers almost all areas including, Agriculture, Environment, Industry and Human Health.

Sustainability in the area of finance

Access to sound technologies is essential for sustainable development. The investment decisions and transfer of technology are key vital part during trade. The imported technology has to be compromised, against the bargaining position. The vendor selection and selecting areas will safe guard the environment and enabling them to upgrade the human resources. The capacity building through technology acquisition, skill development and evolution of local policies and support for technology transfer process. The problems like market intervention of intermediation and matching technology with suitable applications, brokering partnerships, negotiations and devising financial packages. Replication or indirect effects must not affect the results and creation of such funds from includes: Project designs; through demonstrations, Resource mobilization, Improved regulatory frameworks and standards, Augmenting technical capacity, Devising new institutional models, and Encouraging stakeholder dialogues.

Conclusion

The need of the hour is to identify the key areas in the planning activity for sustainable development. Identify the present scenario of science and technology activities of developed countries. The isolated areas of particular research interest must be addressed for which the improvements could combine together and supports the lack of expertise for the individuals. The infrastructure developments on sustainability developments must be addressed with high sophisticated channels. Most of the countries have agriculture –based economies with the usage of sustainable technology the crop yields can be raised. So far the development on sustainable technology lacks behind in the areas of human resource development due to resistance to change, lack of awareness, and adoption of technologies using rapid technological development in all private sectors.

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