

TECHNOLOGY AND COMMUNITY DEVELOPMENT BCD 216

LECTURE 1

TECHNOLOGY AND DEVELOPMENT

TECHNOLOGY AND INNOVATION

At one point or the other you have used technology. Perhaps when the word technology is mentioned there is something that comes to the top of your head which is probably Information Technology, but technology should not be misconstrued to mean *Information Technology* only, it is wider than that. Technology is the making, modification, usage, and knowledge of tools, machines, techniques, crafts, systems, and methods of organization, in order to solve a problem, improve a pre-existing solution to a problem, achieve a goal, handle an applied input/output relation or perform a specific function (*Wikipedia*). It can also refer to the collection of such tools, including machinery, modifications, arrangements and procedures. Early humans went through a process of discovery in developing simple stone tools, fire, clothing and shelter, to metal tools and transport means as well as energy generation to what we have today inclusive of technology in the field of medicine, engineering and computer science.

Technology is a word often used in various domains, especially in the realm of economic development, and is considered as the key that opens various doors which then leads a society or country on to the path of economic development. It is regarded as the most important differentiator between the developed —North|| and the developing —South|| or between the developed economies and the emerging economies.

From simple tools used by the human race at the very beginning to the current more sophisticated tools which have taken man beyond the confines of the earth's atmosphere, technology over the years has gone through *innovation* from generation to generation. Hence, innovation is the act or process of introducing new ideas, devices, or methods. Innovation is all about finding better ways of doing things or simply the application of better solutions that meet new requirements. Innovation is not simply a novel idea or tool but it is the application of it which brings about impact on the society that is really innovation.

It must also be said that basic technology usage is not necessarily a reserve of the human race but rather has also be used by other animal species and these include primates such as chimpanzees, some dolphin communities and crows. Chimpanzees would use a walking stick while crossing a

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river in order to measure the depth of the water or foraging while others use stone hammers and anvils for cracking nuts.

More often than not, over the years, innovation has been as a result of either of three things; a focused effort by a range of different agents, by chance, or as a result of a major system failure. According to Peter F. Drucker the general sources of innovations are different changes in industry structure, in market structure, in local and global demographics, in human perception, mood and meaning, in the amount of already available scientific knowledge, etc. The emergence of new technologies provides us with the means to deal with the challenges facing us today.



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Technology and Development.

To define development as an improvement in people's well-being does not do justice to what the term means to most of us. Development also carries a connotation of lasting change. Providing a person with a bed net or a water pump can often be an excellent, cost-effective way to improve her well-being, but if the improvement goes away when we stop providing the bed net or pump, we would not normally describe that as development. This suggests that development consists of more than improvements in the well-being of citizens, even broadly defined: it also conveys something about the capacity of economic, political and social systems to provide the circumstances for that well-being on a sustainable, long-term basis.

Quick Definitions

□ **Economic development** is the improvement of the way endowments and goods and services are used within (or by) the system to generate new goods and services in order to provide additional consumption and/or investment possibilities to the members of the system.

□ **Human development:** people-centered development, where the focus is put on the improvement of the various dimensions affecting the well being of individuals and their relationships with the society (health, education, entitlements, capabilities, empowerment etc.)

□ **Sustainable development:** development which considers the long term perspectives of the socio-economic system, to ensure that improvements occurring in the short term will not be detrimental to the future status or development potential of the system, i.e. development will be —sustainable on environmental, social, financial and other grounds. Technology and development, more so economic development, are so intertwined that governments, administrators and politicians continue to believe that it is the lack of technology, which is responsible for low rates of economic growth and the subsequent poverty that prevails in the world. Human development, in combination with technology, yields economic growth which, in turn, is necessary to generate further advances in human development. Consequently, emerging economies have embarked on a journey of economic development with the help of technology transferred from the developed countries.

Developing countries generally see a close relationship between technology and economic development and look for technology transfer by means of networking, foreign direct investment, joint ventures or licensing of technology. The use of technology is seen as increasing

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productivity and enabling the country to achieve a higher output from the same number of labor hours. Technology also is seen as essential to improving critical infrastructure such as healthcare, education, transport and telecommunications.