

## **Problems arising out of the lack of systematic control over scientific and technological innovations.**

Science and technology have been undergoing relatively fast changes. These changes do not always guarantee beneficial results to the society and people. These changes may often give rise to some special problems. At the same time we have not been able to develop a system to exercise control over scientific and technological innovations. Three main problems in this regards are worth citing.

- Problems related to the nature and qualities of the environment.
- Distortion of the priorities of the research matters and efforts.
- Highly technological society posing a possible threat to democracy.



## Problems related to the nature and qualities of the environment.

A relatively unsystematic and uncontrolled scientific and technological advance may have many unforeseen social effects particularly on environment. Example:

- a) Due to excessive use of chemicals and artificial fertilizers the soil impoverishment has taken place in nations such as South Italy, Greece, Palestine, Egypt and Morocco.
- b) There have been fears that food additives may contribute to human cancers, blood pressure, diabetes, nervous weakness and such other disease
- c) Atmospheric pollution caused by man may lead to climate changes that could cause a new ice age.
- e) Gas sprayed through aero planes may interfere with the planet's ozone layer and allow dangerous radiation to reach the surface of the earth.



## Distortion of the priorities of the research matters and efforts.

Society should fix up the priorities for making scientific researches. Otherwise the haphazard scientific and technological advances would cause unforeseen effects and distort the techno-scientific development. At present the scarce natural resources should be use for :

- \* producing more effective life saving drugs,
- \* predicting effectively and well in advance the probable dangers of earthquakes, cyclones, and such other natural calamities.
- \* producing more effective instruments to increase the efficiency of physically and mentally handicapped children.



Highly technological society posing a possible threat to democracy?

In a participant democracy ordinary people and their elected representative take part in the decision making process. In highly technological society decision makers(elected representative) may unknowingly cause great dangers to the society by taking unscientific and wrong decision.

- Example: They may take decisions to build nuclear reactors near urban settlements, to issue licenses to industries that cause environment pollution of the worst type; to issue licenses to the industries without considering the 'sustaining power' of that particular environment and so on. Due to their ignorance of scientific and technical matters such representative may invite dangers to the society.

- There are another danger caused by ***technocracy***-rule by technical experts who play their role behind the scenes. In modern corporations, big companies and government departments, the real decisions are often made by experts. The decision makers normally rely upon the specialized knowledge and recommendations of these technical experts. Sometimes societies will have to pay a heavy penalty for the enormous technical advises given by these experts.