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ENGINEERING EDUCATION AND ENVIRONMENT

I am lucky to address the gems of our society.

We witnessed a phenomenal growth in the area of engineering education during the last three decades. This transformation opened up a paradoxical situation in real term of widening the strong education base in many countries. Within a very short period of existence, many institutions could not display satisfactory performance. Inadequate funds, infrastructures and faculty became the sole reasons.

To protect the quality and quantity of engineering education, most countries created statutory body of their own. Some followed the guide lines of global body like Washington Accord. India has close to 3,000 institutions imparting engineering, architecture and management education leading to degree and some to post graduate degree. The Ministry of Human Resources development caters to programme at undergraduate, post graduate and research levels. Its statutory body, the All India Council far Technical Education, looks after planning, quality and development.

Among all types of engineers, Environmental Engineer need to play a vital role immediately. The Apex Court of India has made Environment Engineering a compulsory subject al all levels of education since 2004-2005. While studying, Environmental Engineer uses principles of engineering, soil science, biology and chemistry. In simple words environment means surrounding- air, water, soil and noise. Increase in their tolerance levels causes degradation of environment.

The World Commission on Environment and Development known as Brundtland Commission at its 1987 report “Our Common Future” brought into common use the term Sustainable Development defining it as development towards meeting the needs of the future generations. World Summit on Sustainable Development held at Johannesburg in August -2002 by 190 countries known as “Rio + 10 Summit” emphasized to take care of sustainability by protecting environment. Mankind can protect the environment by using the natural resources to meet only its need and never becoming greedy. We have not inherited this world from our forefathers but have borrowed it for our children.

Imbalance in environment has resulted in climate change. This has increased the atmospheric temperature worldwide since 1992. We have seen the hottest year in 2014. The rise in temperature has led to

- Erratic Monsoons.
- Droughts and Floods.
- Reduction in ice caps at the poles.
- Reduction in Sweet water and increase in Saline water.
- Reduction in Ground water levels.

  We may take care of the situation by

  - Desalination.
  - Conservation.
  - Reuse.
  - Improvement in water use efficiency.

Next to climate change, deforestation plays a major role in eco-imbalance. The loss in forest on the earth is close to 32 million acres of forest. This area is equivalent to area of England. Today forest covers only 30% of world's land, the ideal being close to 40%. Forests provide oxygen. Forest provides food, fibre, water, medicines and shelter to 1.6 billion people.

While considering engineering education and Environment, the vital thrusts are:

- ☐ Restructure Engineering Education.
- ☐ Reduce Consumption.
- ☐ Replace Wastes.
- ☐ Replace unstainable with sustainable.
- ☐ Recycle and Reuse.
- ☐ Restore land, air, water and ecosystem.

To create concrete awareness among people of all strata, the World celebrates

- ★ 21 March- World Forest Day.
- ★ 22 March - World Water Day.
- ★ 07 April – World Health Day.
- ★ 22 April - Earth Day
- ★ 03 May – World Energy Day.
- ★ 05 June- World Environment Day.
- ★ 16 September- International Day of the preservation of Ozone layer.
- ★ 19 November – World Toilet Day.
- ★ 05 December – World Soil Day.