

## *Linking Energy Crisis with Climate Change*

### **Dr. Ritu Mathur**

Thanks for Dr. Mathur for her value and interesting lecture which includes important and useful data and information about energy usage and GHG emission in India. The required mitigation actions were illustrated within sectoral level.

Different trends of GHG emissions were illustrated and it was clear, that there is considered increasing in GHG emissions during last 40 years. Since the developing (growth) countries play main role to emit GHG gases, so they have series responsibility to reduce the implication of energy use.

Therefore, the mitigation actions are required to reduce the effect of climate change on global and local scale. Mitigation by low carbon energy is one of suggestion to overcome the implication of energy use.

In term of mitigation, sectoral- specific policies are used more than economic-wide policies. Some examples of sectoral- specific policies are: regulator approach, economic instruments and governmental provisions of public goods and services.

**Some suggestions** were presented:

1. Investment in clean energy
2. Energy efficiency.
3. Innovation and public research, development and demonstration (RD&D).

India has high rank of risk in term of climate change especially in case of air pollution. On other hand India have many considerations related to energy security, health and local air pollution.

**Other challenges** listed such as:

1. Large population.
2. Rapidly increasing includes:
  - Income level.
  - Urbanization
  - Access to market
3. High level of mobility
4. Digitally connected world.
5. Not declining conventional energy resources.
6. Import dependence continually on the price

**Needed paradigm:**

1. Fuels, technologies, infrastructures, material behaviors, IT, skill sets.
2. Multitude of instruments.
3. Across all sectors
4. Encompassing

### **India's growth story: implications**

- Can we reduce emissions?
- When should we peak?
- Retirement & economic life?

The use & throw culture versus recycling?

- Distributional effects of growth

Access, quality, reliability of energy & services vs GDP growth.

- Impacts of climate change on growth.

### **Energy efficiency:**

- Improvement in appliance efficiency.
- ❖ Energy intensity of residential sector- Japan case study.
- Energy efficiency or resource efficiency. (water, material, energy)

### **Way forward:**

- Policy of market creation.
- Energy pricing reform.
- Saving energy technologies
- ..
- ...

### **Key recommendation:**

- Urban
- Health
- R&D.