

A critical analysis of the current energy scenario in India

If we have to participate the energy position in India albeit the world, we must quickly trace the energy scenario and its impact on civilization

Fossil fuels like coal, petroleum and natural gas have been mined and explored in large volumes and with total disregard to future generations. No serious attempt has been made either to conserve these fuels or to develop alternatives. Easy availability has led to complacency.

There have been changes in the socio-economic and political strategies of most countries in the world. There is virtually a scramble for dominion and expansion in the energy world. Each nation is trying desperately to build energy security rings. The energy supply position is rather alarming world over. India is no exception.

India has been making special efforts for an Iran-Pakistan-India gas line, signing agreements with other countries. The US foreign policy is also largely energy-centric. So is China's. The Iran-Iraq war, Iraq's invasion of Kuwait, and the US intervention in Iraq show a glaring strategy of building energy security.

The quest for alternate electric energy sources world over can be traced to the last few decades. Nuclear and hydel power generation were developed as alternatives to coal and natural gas. But the major source of electric energy is still thermal. The transportation sector is worse off. It has no viable alternative and depends extensively on petroleum products a large chunk of which is imported. Hydrogen fuel cells are a distant dream.

The burning of fossil fuels emits huge volumes of exhaust gas, mainly carbon dioxide, sulfur dioxide and carbon monoxide. While the latter two are poisonous, the first is the chief contributor to the green house effect. Industries such as steel mills, cement plants, chemical industries and others further aggravate the situation.

The adverse impacts of pollutants on the environment cannot be overemphasized. Changing weather patterns, droughts and floods are manifestations of the ill-effects of global warming. The phenomenon is not restricted to India alone, but globally. Global warming is accelerating.

In India, we are dependent on thermal power generation to the extent of 85 percent. Both industrial and domestic sectors depend on coal, natural gas, and LPG. A special strategy is, therefore required to improve the share of hydel and nuclear use. In the transport sector too we have to bring radical savings in consumption, by improving the public transportation system, better productivity in vehicle utilization, river navigation, and by switching over to railways (especially, electric locomotion).

Water management needs no special emphasis. Water is "energy" and we spend enormous amounts to make water reach the common man in both urban and rural areas. The government is obliged to providing water for drinking purposes as well as for meeting the agriculture needs. Due to the critical shortage of water, studies are being conducted for crop rotation, targeted at improving productivity. The inter-linking of rivers on a national scale has also been launched.

India is one of the earliest countries in the world to have recognized the need for tapping renewable sources of energy. Nature has bestowed on us abundant sunlight. The work done by researchers has helped generate public awareness. It has also changed the attitude and the mind-set of policymakers, administrators and consumers towards renewable energy.

Despite the huge generation capacity of 110,000 MW of power, India still needs over 20,000 MW more to meet its current power needs. This can be met from renewables easily to the extent of 120,000 MW by 2012, targeting a modest 10 percent of this potential in next two years. An aggressive energy policy is necessary to achieve this breakthrough. India can achieve both energy security and control environmental degradation.

India's annual consumption of petroleum products has crossed 120 million tons, and it is increasing constantly. While in the case of electricity generation we have alternative sources to fall back on, in petrol and diesel we have reached a vulnerable position.

If India can discipline its energy strategy and follow a holistic approach, we will be able to save our own environment and become better than many developed nations. The new and novel scheme of “Carbon Trading” will assume importance. India will gain. It is the responsibility of the government, researchers, manufacturers and the policymakers to address this problem and set ambitious, achievable goals.

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Reference Book:

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