

NOTE

THE CHALLENGE OF "CHEAP" ELECTRICITY

Bharat Jhunjhunwala writes :

One can compete with China only by providing cheap goods. Large amount of electricity is consumed in the production of steel, cement and paper. High cost electricity increases the cost of these goods and that spreads into the whole economy and Indians are unable to face competition from goods made by Chinese businesses with cheap electricity. The cost of commercial electricity in India is about Rs 6 per unit against about half that price in China. The government is trying to increase the production and bring down the cost of electricity to meet this global challenge.

The three main sources of electricity are nuclear, thermal and hydro. There are limits to increase in production from all three. The radioactive waste generated by nuclear power plants poses threat of spread of radioactivity. Then the country also becomes dependent on imports of uranium fuel which hits at the economic sovereignty. Carbon dioxide gas is generated in large quantities from thermal power plants. This is contributing to global warming in a big way. Glaciers are melting and there is danger of cities like Mumbai located on the sea shores going under water. Hydropower dams are preventing flow of sediments to the sea. The sediment-hungry sea is eating the coasts. Reduced oxygen is reducing the happiness obtained by the pilgrims taking bath in the river waters. So it is not wise to make unending increases in production of electricity from any of these sources.

But it is essential to increase production for bringing down the price and facing the global challenge of cheap goods. The government does not collect the price of environmental damage from electricity plants in order to secure this objective. Say the direct cost of producing electricity from a thermal plant is Rs 3 per unit. The cost of re-absorbing carbon dioxide is Rs 2 per unit. The true cost of production is Rs 5 per unit. Yet the plant can happily sell power at Rs 4 per unit and make a good profit because the cost of reabsorbing carbon surreptitiously passed on to the society. The low price of power leads to increase in demand and it means yet more invitation to the environmental problems mentioned earlier.

Recall the ancestors of the Indus Valley civilisation. They cut their forests to burn bricks, secured huge economic growth and made the grand cities of Mohanjodaro and Harappa. They made beads and wines and exported them. But they failed to take into account the negative impacts of deforestation. Soon huge amounts of soil flowed into the Indus River, the level of the river waters rose and flooded those grand cities. That was the end of that civilisation.

There are two dimensions of the environment. One is the global dimension. Huge use of electricity, and oil by the developed countries is leading to large emission of Carbon dioxide gas and warming the planet earth. Then there is no alternative but to bear this. There is only small progress in global talks of reduction of emissions. But one can make efforts to strengthen national environment so as to be able to better face the global fallout. For example, if Indians adapt their agriculture to low use of ground water, if they have rivers and forests, reduce consumption of electricity in air-conditioned malls, impose high

taxes on large cars that consume huge amounts of petrol, make smaller satellite cities that require less transportation, etc. then they will be in a stronger position to bear the consequences of global warming. For this purpose, it is essential to proactively reduce consumption of electricity and impose taxes on environmental damage perpetrated by electricity plants.

Government will have to impose high taxes on industries that create environment damage. Nuclear power stations can be required to buy insurance against leakage of radioactive material. Thermal plants can be required to implement new technologies that reduce carbon emissions. Hydro plants can be asked to allow 75 percent of the water to flow freely. Farmers can be asked to plant trees on the borders of their fields. But this will lead to high domestic price of electricity and Indian goods will fall behind in global competition. The solution to this dilemma is to impose an additional 'environment tax' on all imports. □□□