

NOTE

DIRTY COAL

Sisir K Majumdar writes :

The English writer George Orwell (1903-1950—pen name of Eric Arthur Blair—born in India), famous for his prophetic book—'Nineteen Eighty-Four' (1949), probably again prophetically wrote over 70 years ago :

“Our civilisation is founded on coal”

Unlike Europe's, Asia's still is—particularly China and India.

Globally coal accounted for almost half of the increase in energy from 2000-2010; it may overtake oil as a fuel by 2025. There is plenty of it and compared with rival fuels, it is cheap. But it is dirty.

For the past two decades, Asia has been responsible for over two-thirds of the growth in global energy demand. As, above all, India and China race towards industrialisation, they will burn coal in huge amounts. The resulting carbon dioxide will be among the biggest hurdles in the way of a global agreement on limiting climate change.

China leads the world in coal production and consumption as well. It mines over 3 billion tonnes of coal per year—three times more than the next producer (United States of America), and yet last year (2011) overtook Japan to become the world's biggest importer. Over four-fifths of China's electricity comes from coal-fired power plants. Burning coal is a major cause of the severe air pollution afflicting parts of China, and through waste from coal washing and underground leakage, of contaminated water and degraded soil.

China is working hard to develop other sources of energy in order to lessen the energy intensity of its growth. It is already the world's biggest user of hydroelectric power, has almost as many new nuclear-power plants as the rest of the world put together, and is expanding solar and wind energy somewhat aggressively. China is still likely to consume 4.4 billion tonnes of coal in 2020, when its carbon emissions are expected to have increased from 6.8 billion tonnes of carbon dioxide equivalent in 2005 to 15 billion tonnes.

China imports coal from Australia and Indonesia, and Mongolia (outer) which is developing the world's largest untapped coal deposit just over the border. China is likely to remain a highly coal-dependent economy for decades despite diversification of energy sources.

India, second to China, is also burning awful lot of coal. Some 70% of its electricity comes from coal. The national grid has expanded hugely in recent years. But it still leaves about 300

million people (total population 1.2 billion) without an electric connection. In projections of increased energy demand over the next 25 years, India is second only to China.

Like China, India is ploughing resources into nuclear power, oil and gas exploration and imports, and renewable energy. Like China, too however India finds coal the obvious option. It is already the world's largest producer; it has the world's fifth biggest coal reserves. India seems to be slow in coal mining—its output has not increased for the last two years. So India may soon become the world's biggest coal importer.

On current trends, India's carbon emissions will increase by about two-and-a-half times by 2030. Its power industry alone will account for about one tenth of the total rise in global emissions, during the same time. However, in India's case total emissions (at 5 billion to 6.5 billion tonnes) will remain well below China; its people will still be producing for less carbon dioxide per head than Americans and Australians.

Across Asia, from Bangladesh to the Philippines, the drive for coal-fired power seems unstoppable. Renewable energy sources such as wind and solar generation do not offer affordable electricity on a big enough scale. Production of natural gas, which emits less carbon, will boom but not supplant coal. Technologies to make power generation cleaner and more efficient are available but not as widely deployed as they should be. If carbon emissions are not controlled, global temperature will rise. Asian growth will remain fuelled by coal, which is agonising for the planet. □□□