

WORLD IS INNOVATING: TIME FOR INDIA TOO



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The world is in the throes of a paradigm shift towards sustainability. Innovation is the key for transitioning towards a sustainable economy, as the current economic system is doomed to collapse during the 21st century. The reasons for the death of business-as-usual are manifold: depletion of fossil fuel resources which form the cornerstone of current economic growth, ecological destruction of the planet's vital life supporting systems, and the predicted devastating impacts of climate change. The developed world has taken heed of these happenings and is abuzz with innovative initiatives to herald change. 'The State of the World 2008' report published recently by the Worldwatch Institute says: "We come away from this project with a strong sense that something large, perhaps even revolutionary, is struggling to be bornmuch innovation has been unleashed by the wave of concern about climate change that has broken across the world in the past year..." Policy makers, researchers, entrepreneurs, venture capitalists, business leaders and the civil society are innovating to design the architecture of a new world. At the core of this is a transition to clean energy technologies.

Many developed and some developing countries have laws facilitating an accelerated transition to a clean energy economy. Many of them have also introduced eco-taxes, feebates (a combination of fees and rebates to promote clean technology), congestion pricing in cities, etc. China, in 2006, enacted a Renewable Energy Law which has transformed the sector. Even as I write this, the country is amending the Water Pollution Prevention and Control Law to impose hefty penalties on CEOs of companies who pollute waterways. The proposal is to cut their salaries by half if their enterprises are responsible for creating severe water pollution. This is an extreme punitive example of an innovation for bringing about sustainability. Sweden is another good example of a country innovating at a fast pace. The country charged a fee on power plants in the early 1990s for emitting nitrogen oxide and redistributed the revenues to least polluting plants. In 2006, a special Commission appointed by the Swedish government recommended a plan for making Sweden oil-free by 2020. Australia pledged early in 2007 to ban incandescent light bulbs before 2010 and replace them with CFLs and LEDs. The 'State

of the World 2008' lists numerous such innovations. For example, the U.S. has a 'Superfund Legislation' which requires companies to report annually on the amount of hazardous chemicals generated by them. This disclosure requirement and their possible impact on the share value made companies take dramatic, unprecedented steps to redesign their processes to eliminate the need for these toxic chemicals. The U.S. and Europe are developing renewable technologies at breakneck speed. Even the oil exporting countries in the Gulf have begun the transition to renewables.

Is India innovating enough? Sadly, no; we are still treading the beaten track. We are obsessed with unsustainable double digit growth rates, and see securitisation of external supplies of fossil fuels as the route to achieving the same. That is why we continue to acquire foreign oil, coal and gas fields – all fossil resources whose production is predicted to peak soon and then decline. Foreign purchases are now extending to acquisitions (by IOC, BPCL and HPCL) of sugarcane fields in Brazil to produce ethanol! It is well known and well established that such acquisitions are highly unsafe and unstable, because, as the resource crunch tightens and as governments change, foreign investors are thrown out mercilessly. Venezuela has done it recently. Such external securitisation strategies will only add to our long-term energy insecurity.

India is blessed with abundant renewable resources. Along with protecting our natural ecosystems, we should develop or adapt and deploy harvesting technologies to capture the energy from these resources. Sorry to say that we still don't have any comprehensive or holistic strategy to do this. Our optimism about fossil fuel securitisation is unscientific and unfounded and our failure to innovate in time will cost us dearly in the not-too-distant future. We are still vacillating on many critical issues of innovation required for a sustainable future in the context of climate change mitigation and energy security. Even the 'Union Budget 2008' is a huge disappointment in this regard. It is high time we put in place policies, funds, regulations, research, institutional structures, etc., to fast-track innovative technologies to face emerging realities. Any more delay to innovate, to put it mildly, will be suicidal for our future.