



ANIL RAZDAN

Former Power Secretary of India

I will say at the outset that what I will speak to you will not be confined strictly to the energy debate; it will also address the environment, because I think that is the topic and we will not be able to get back to it if we stick to energy. I have often said that developing countries, and countries like India, believe that five principles cover the subject of energy and the environment. These are that you need energy, you need equity, you need to protect the environment, you need efficiency, and you need enterprise. Unless these five Es are present, we will not be able to tackle the problem.

The other good slogan that came out of the World Bank report in 2010 was that we need to act now, we need to act together, we need to act differently, and we need to act smartly. We heard in yesterday's discussion with the head of the OECD that we are now in collision with the environment, and he suggested we go structural, we go social, we go green, and we go institutional. What is preventing this? Developing countries feel that it is a kind of obstinacy on the part of some of the developed world, which is refusing to accept the concept of energy and environmental equity.

We say that there is a collision with the environment, and if we believe this is a problem universal to the planet, we must understand that the fruits of development must also be shared equally. This stubbornness and refusal to comply with the obligations of Kyoto, of the UNFCCC, of the Bali action plan, means that we are in a situation where we keep discussing at COP16, COP20, or however many COPs there will be; bureaucracies are burgeoning, air travel is increasing – 17,000 people attend these conferences, and what comes out of them is anybody's guess.

Looking at the World Bank report, I see that a long-term goal of per capita emissions converging to a band could ensure that no country is locked into an unequal share of the atmospheric concern. This is the only way to move away from the present climate change cold war. We have been engaged in a cold war, with two camps deciding to obstruct each other's moves. Unless we accept the principle of equity, there will be no breakthrough.

There is no doubt that the high-income countries have to drastically reduce their carbon footprint to sustainable levels. This is absolutely essential. The cumulative CO₂ emissions on the part of high-income countries since 1850 are 64%, with a population of one billion, 34% by middle-income countries with a population of 4.2 billion, and only 2% by the low-income countries with a population of 1.2 billion. This shows that the poor will continue to remain poor; inequalities will increase and are increasing, unless we act here and now.

There is also a growing feel, which also came out in yesterday's discussion, that the high-income countries are looking at short term goals, whereas the middle and low-income countries seek to look at long term goals for development and also poverty alleviation. There is also a feeling in the developing countries, that a change has been coming since the 1990s, and that the balance of economic power is shifting. The developed world perhaps wants to stall the developing world from moving centre stage, at least the emerging countries. Unfortunately, those who are very poor are nowhere, and they will continue to meet all the good environmental standards, energy sustainability, etc., because they are just not providing any energy to their people. A World Energy Council report from 2011 comparing energy strategies shows that countries such as Nepal come right on top in terms of environmental sustainability as they are not providing any energy, in spite of sitting on huge reserves.

What is the other issue affecting the energy problem? It is the issue of subsidies and the proper price of energy. Subsidies were about USD310 billion in 2007 in developing countries on petroleum products alone. We have to create a climate where we set differential standards for who is to pay how much. The moment you exceed subsistence limits of consumption, you pay a much higher price; otherwise, we will not make much progress. We are trying a direct cash transfer system for subsidies in India, through our UID programme, which seeks to enlist every citizen in the country who is a beneficiary. Let us see if it succeeds.

Where does a country like India move from here? Let me just give you a feel for it. We had about 200,000 megawatts in connected grid power in March-April, out of which hydro was about 39,000, thermal was 131,000, nuclear was only



4,780, but renewables, new renewables as we call them, were about 24,503 megawatts, and the good part is that about 21,000 came from private sources, which means that the private sector finds it worthwhile to move into these areas.

What has made this possible? I can think of the Prime Minister's national action plan on climate change. Two programmes are particularly significant and worth mentioning. One is the national mission for enhanced energy efficiency, which seeks to cut down emissions through greater efficiency, and create tradable energy efficiency certificates for those who exceed their targets. Those who are not meeting their targets will need to buy them. Unfortunately, the carbon market is crashing.

The other national mission is the solar mission. This has also done very good work. We intend to add almost 30,000 megawatts of renewable energy in the next five years. Where is the failing? We created structures like regulators through policy, but the regulators did not revise tariffs, which plunged the distribution companies into huge indebtedness. Democracy at times is a drag, with political pressure on regulators, populism, and the new creation called civil society, with unbalanced, irresponsible opposition to setting a real price for energy, and also stalling a nuclear reactor which is almost built, and which I was associated with way back in 1989.

There is the artificial price of electricity and water; in fact, no price for water. This is a huge inconsistency in the policy. There are gas shortages and burgeoning LNG prices, with USD16 being offered in Japan. How can a developing country move from coal to gas? It cannot. Shale gas does offer some hope, but let us hope we can get lower LNG prices. There is no peaking tariff in most of these countries, and unless you have one, they will not move to more efficient load management or cleaner fuels. There is no 100% metering of consumers; this is a prerequisite for energy accounting. There is a good example of prepaid metering in South Africa, but it is missing in most developing countries.

We wanted to move to low carbon or carbonless growth for generating electricity, in line with the energy technology perspective plan which the IEA had presented, but then Fukushima happened, and that has stalled a lot of new initiatives.

What are the positives? The regulatory mechanism in India has put forth a renewable purchase obligation, where each distribution company has to progressively move into a 5-10% renewable purchase obligation. The economics have shown that the burden will not be very heavy. There is also very good movement on super-critical technologies.

Given these issues, I will just draw your attention to one more aspect, and that is the urgent need in transport sector to suppress the consumption of liquid fuels. Pollution from the transport sector is the fastest growing pollution. Yet, it is the aspiration of every developing country, whether China or India, to move from smaller to bigger private vehicles. This must stop, and mass rapid urban transport must be put in place before any new urbanisation takes place. We have to ensure that people do not get into the habit of buying individual cars and other modes of transport. Once they invest in these modes, it is very difficult to turn the clock back. We have had examples of BRT, etc., but infusing something into an old settlement gives rise to lots of problems. Begin when new urbanisation is coming, create smart cities and smart initiatives, and the time to do it is now. The most important thing is that the developed world has to provide the cash and incentives to make this happen, otherwise I assure you it will not happen.