ANIL RAZDAN

Former Power Secretary, Government of India

It is my pleasure and privilege to invite you to this workshop on energy and the environment. We have a distinguished panel here with us. Bruno Lafont is Chairman and CEO of the very large industrial company, Lafarge. We have Mohammed Tawfik Mouline, our host, who is the Director General of the Institute for Strategic Studies. We have my old friend and colleague Ambassador William Ramsay, who is the director of the energy programme at IFRI, and previously of the International Energy Agency, and both of us were at this seminar last year also. Qu Zing is the President of the China Institute for International Studies, and he should be giving us a lot of critical inputs from China.

There is an inseparable link between the way we produce and consume energy and global warming; that is the hard reality. It is thought that if the way we are proceeding today goes unchecked, global temperatures will be five degrees Centigrade above preindustrial temperatures, which could bring horrific changes in the environment, causing further misery particularly for the 75% of the population living in the developing world.

There is also an inseparable link between energy use and deployment and levels of income and development. Therefore, energy is virtually a sine qua non of any poverty alleviation programme. There is gross inequity in wealth and energy across the world; the world was formerly divided between the rich and the poor, but now we also have the middle-income group. We had the developed countries and the developing counties, but now we have a very strong group called the emerging countries, from which China and India are represented here.

Lower-income countries presently represent only about 3% of the total energy demand; that is a paradox. These are the countries, along with India and China, where energy has to be deployed in large quantities, and these countries will consume up to 90% of the increase in energy demand over the next 30 years.

The per capita emissions in the developing and the developed world also present a similar picture. The per capita emissions in the most highly developed countries of the world are almost eight times higher than in the least developed world, and about five times higher than in other developing countries. The problem before us today is whether we develop or not; that is a crucial problem for the emerging countries at least. It is a considered consensus among what are now called the “BASIC” countries that we have to progress. These countries are not bound by any Kyoto obligations, and yet they are on the path of development, and would not like to see that development hindered to their detriment.

They would not like to be part of international obligations, because under international treaties they are not supposed to be; but quite creditably and sensibly, they formed national programmes. China has declared a very clear

programme, as has India, which has an action plan for climate change, and in which two of the national objectives relate to solar power and enhancement of energy efficiency.

What are the problems that face the segment we are talking about today, the energy segment? We know that energy use is fossil fuel dependent; that is the way we have developed. However, fossil fuels are finite, and that is the brighter side of the picture as far as the future of energy is concerned: we cannot take fossil fuels for granted, and must move along another path of energy development. We have to change the way we produce and consume energy, and that brings in energy efficiency, which is the most available, the fastest and the most cost effective way to bring about reductions in emissions and the availability of energy.

There are distortions also within the rich countries, and a clear example is to be seen in the US and Europe. Fuel demand in Europe today is half of what it would have been if it had followed the same practices as in the US. European emissions are also half of what they are in the US. These are two land masses which are equally abundant in wealth yet whose behaviour patterns are different, and I think this is where policy has made the difference. I think that higher fuel and electricity prices in Europe have been the key to lower consumption.

How do we change behaviour patterns? A study was done by the World Bank which showed that if 40 million SUVs, which are all the rage in the US, were converted into energy efficient vehicles, this would provide electricity to 1.6 billion people across the world who currently do not have it. This is one small example of how we might be able to find solutions if we change the way we live. Crises shake up societies and present problems, but they also show us that the way we are functioning is not sustainable. They enable us to analyse, to think, to find better solutions to the way we live, to provide deeper insights into the problems that face us, and also show us the way forward, in this particular case in sustainable development.

Another problem we have before us today is that we are not spending enough on energy research, development and deployment. For example, global subsidies paid on petroleum products are said to be about USD150 billion annually, whereas research, development and deployment (RD&D) on public energy is only USD10 billion annually. Private spending on energy RD&D is about USD40-60 billion annually, and constitutes only about 0.5% of private sector revenues. This is against 8% in the telecom sector and 15% in the pharma sector.

That is quite an insight. The answer is very clear to me. Companies tend to put R&D investment where it will be proportionate to profits and the demand for the commodity. Telecom has had huge demands, and pharma, because of healthcare, has had huge demand and huge profits, along with IPR to some extent. However, energy use and deployment has been more or less constant for the last 20-30 years; it is fossil fuel-dominated. We have not changed, as telecom has changed from landlines to wireless. Here is the opportunity for the energy sector, and government policy, to say that henceforth energy will only be produced by more efficient means, will be produced by renewables as far as possible, and will have progressively lower emissions as prescribed.

This problem and this sector cannot be left to market forces to find solutions. It is clearly an area where governance and public policy have to intervene, and intervene effectively, not only through elected governments but also through the vast plethora of regulators that dot the landscape in this sector. A very clear and bold directive has to come from there, more particularly in the developed world, which has immediately to get down to reducing its energy use and emissions by as much as 50% in the foreseeable future.

What will happen if we do not act now? Some studies have shown that answering climate change has two aspects: one is mitigation and the other is adaptation. The cost of mitigation will be doubled if we do not act for the next ten years. Secondly, if we do not deploy the right kind of technology for energy production today, it could become a bad investment for the 25-30 year life cycle of those plants. Therefore, there is great need for, firstly, moving straight to energy efficiency and for taking the best technologies that are available today for better methods of energy production, and working on carbon capture and safe storage and not just sweeping the problem under the carpet. Thirdly, we need to develop new technologies. The question arises of funding these new technologies, particularly in those countries where 90% of the demand will come in the next 20 years, and these are the poor countries. I think even the World Bank study now acknowledges that there is no way out except for the developed countries to contribute at least the incremental cost of new and better energy deployment in the developing world. These are some of the areas I thought we would be working on today.

Regarding funding, while inadequate, it is widely scattered; it is estimated in a global study that there are least 20 bilateral or multilateral funds for climate change. These need to be cut down drastically; the transaction costs will come down, and there will be greater clarity in governance. This is clearly a case of bad governance. CDM has proven to be a very good exercise for technology transfer, for capacity building, and also for emissions reduction. Personally, I think there is no case for CDM reduction, and not only must it be continued but strengthened further.

CDM and carbon pricing through cap and trade are two market mechanisms that we can introduce to bring about sustainable fund flow for the ultimate deployment of funds. One sector I will mention before I close, because industry will be discussed by Bruno, is transport. It has been estimated that, according to current trends, 2.3 billion cars will be added between 2005 and 2050, and 80% of these will be in the developing world. Therefore, we need to encourage efficient and comfortable mass public transport. Urban metro transport is a must, along with better planning, so that people do not have to traverse large distances. Along with this, we need better construction techniques and better housing planning so that dwellings are more energy-efficient and better lit.