Towards a renewable energy future

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One of the most significant events that I have been associated with this month was the release of IPCC's Special Report on Renewable Energy Sources and Climate Change Mitigation. This report was originally requested by the German Government and was resisted by some countries initially (whom I would prefer not to identify), but in the end the entire Panel agreed to its production, and the German Government provided significant resources to make it happen.

The report examined 164 different scenarios available in the literature assessing different levels of penetration of renewable energy. The most optimistic scenario involved a 77% share of renewables in total world consumption of energy in 2050. Without going into the substance of the report, may I say that one of the important features that comes out of this product is the importance of long term policies and prices which can make an enormous difference to the kind of energy mix that the world is going to see in the years ahead. In particular, a price on carbon would be critical in ensuring adequate expenditure on research and development and market initiatives by which renewable energy can start replacing conventional sources within a reasonable period of time. Renewable energy also has a huge potential in creating energy access opportunities which certainly do not exist currently for over 1.4 billion people who have no access to electricity and well over two billion people who still use biomass, often of low quality, for cooking purposes. TERI's campaign for LaBL, while not mentioned in the report, provides substance to this reality.

One major concern I have is related to our own poor record in development of renewable energy options in India, even though we have had for almost 30 years a special department dealing with this sector in the Government of India and for quite some time now a separate ministry. Unfortunately, our highly bureaucratic structure and inability to bring about changes which are required for moving away from business as usual are a major constraint and barrier to rapid development. The National Solar Energy Mission gives us an opportunity to bring about change, which has to be preceded by some institutional innovation which, unfortunately, is also being impeded by existing institutional structures and individuals. If we are serious about meeting the target of 20,000 MW of solar capacity in the next ten years approximately, we need a very different organizational structure for conceptualizing, spreading, implementing and monitoring such a programme. All stakeholders, including industry and business would have to be part of this major national effort. If we succeed, then similar organizational innovations can be implemented in other sectors as well. If we do not, then this country would have to pay a very high price in the years ahead when our dependence on fossil fuels will reach levels which are even more unsustainable than is the case today.