

TERI ENERGY & ENVIRONMENT DATA DIRECTORY AND YEARBOOK

2013/14



The Energy and Resources Institute



with complimentary CD

Preface

As India moves along the path of economic growth, environmental issues are assuming increasing importance. So is the objective of attaining sustainability in the pattern of development that the country pursues. Among all the sectors of the economy, the energy sector deserves special focus, because not only is fossil fuel energy in particular a source of pollution along its entire cycle, but emissions of carbon dioxide and other greenhouse gases are leading to climate change, the impacts of which are becoming progressively more serious globally. There are also issues of energy access, because, for instance, there are 1.3 billion people in the world who have no access to electricity and over twice that number are dependent on burning of biomass for cooking purposes using inefficient cookstoves, the emissions from which are a serious health hazard. Women and children in particular who receive maximum exposure to this form of indoor pollution are particularly vulnerable. At this stage, as we move well into the 21st century, the deprivation of large numbers of people to modern forms of energy is an aberration which continues largely unresolved.

It is evident from the global consultations on energy which culminated in the ‘Oslo High Level Meeting on Energy in the post-2015 Development Agenda’, that a consensus is emerging on the need for energy to be explicitly integrated into the new development agenda. This reiterates the importance of increasing the availability and affordability of, and access to cleaner forms of energy and other essential resources across all sections of society in an equitable manner. In terms of economic growth and environmental sustainability, green growth is considered to have the potential to promote inclusiveness. This is well reflected in the Report of the Thirteenth Finance Commission of India (paragraph 3.15), which articulates green growth as “rethinking growth strategies with regard to their impact(s) on environmental sustainability and the environmental resources available to poor and vulnerable groups”.

The importance of green growth in the context of sustainable development is now being seen by many

as a global imperative. All over the world, countries are adopting sustainable development policies and are factoring climate change risks to build resilient societies. A transition to clean energy is being witnessed across many countries. The major global initiative of Sustainable Energy for All, launched by the Secretary General of the United Nations and the President of the World Bank, has been able to galvanize commitments and country-level action. This programme includes provision of universal energy access, doubling the share of renewables and improving energy efficiency across the economy. In India, in particular, an understanding has been reached that choices made today in the energy sector and towards allocation of our environmental resources are bound to define the course of development in the coming decades.

TERI takes pride in presenting the twenty-eighth edition of its flagship publication *TEDDY (TERI Energy & Environment Data Directory and Yearbook)*, which provides the latest updated information and statistics on the energy sector and the environment in India. Energy supply and energy demand both have been discussed in great detail within the energy sector. *TEDDY* has been a frequently used reference document for several international peer reviewed journals and reports. The publication provides a review of government policies that have implications for energy-related sectors of the Indian economy. Energy supply has been discussed through chapters on coal and lignite, petroleum and natural gas, power, and renewable energy sources and technologies. The section on energy demand covers extensively the major energy consuming sectors of agriculture, industry, transport, and domestic entities. The section on local and global environment examines local environmental issues and their impacts on society; and also discusses various facets of climate change. Topics including forestry and biodiversity, global and India-level emissions and climate change trends over India have been discussed within this section. The Green Focus at the end of each chapter highlights in particular successful initiatives or sustainable practices, which are of current interest within each sector. This

publication for the first time is also featuring a section with a discussion on developing metrics to inform sustainable development goals around sustainable energy and environmental sustainability.

At TERI, we attempt to bring constant refinement to *TEDDY* and I am hopeful that like all the previous editions, *TEDDY 2013/14* will also be of immense value to policy makers, business organizations, academic institutions, and research scholars. Comments and

suggestions from the readers shall be welcomed and appreciated highly as these will help us in improving subsequent editions of this publication.



R K Pachauri, PhD
Director-General, TERI