
Introduction

Spurred by sustained economic growth, rise in income levels, and increased availability of goods and services, India's incremental energy demand for the next decade is projected to be among the highest in the world. This increasing energy demand also translates into higher demand for electricity. It has been estimated that in order to support a growth rate of the gross domestic product (GDP) of around 7% per annum, the rate of growth of power supply needs to be over 10% annually. This calls for rapid development of the country's power sector, taking into account, inter alia, considerations of long-term sustainability, environmental aspects and social concerns.

India is endowed with rich hydropower potential; it ranks fifth in the world in terms of usable potential. However, less than 25% has been developed or taken up for development. Thus hydropower is one of the potential sources for meeting the growing energy needs of the country. A judicious mix of hydropower in the energy portfolio can also contribute to energy security, reduction of greenhouse gas emissions, meeting the peak demand and also increased flexibility in grid operation. Besides, projects may also be conceived as multi-purpose ones contributing not only to power but also to irrigation, flood control, navigation, etc. The Government of India is, therefore, giving special emphasis to accelerated hydropower development in its power development plans.

Mobilization of adequate financial resources is an important requirement in this context. The Government has, therefore, been seeking support from international donor agencies and the private sector to supplement its own resources. This report has been prepared to facilitate such funding. It is not intended to be a critique of the development initiatives and policies of the Government. The objective is to provide a comprehensive assessment of what is happening in the hydropower sector in India that would be useful while appraising future funding options by donor agencies. This has been prepared based on detailed literature survey and personal discussions with senior officers of the Ministry of Power (MOP), Central Electricity Authority (CEA), Ministry of Environment and Forests (MOEF), and a number of public and private sector developers and consultancy organizations. The report also annexes an overview of hydropower development prospects in the states of Uttarakhand (formerly Uttaranchal), Himachal Pradesh, Sikkim and in the North-Eastern Region (NER), where large untapped potential exists.