

## **RURAL ENERGY POLICY**

The major sources of energy in rural Bhutan are draft power for farming and firewood as fuel for domestic cooking. With the development of the national economy, the availability of new technologies, and complementary qualitative changes in the aspirations of the people, coupled with difficulties in access to and the sustainability of traditional energy sources, the need to harness alternative energy sources has been fully recognised by the Government. As a consequence of this concern, it is the stated objective of the Government to provide reliable, cost effective, and manageable forms of energy to the rural areas where 90 per cent of the total population live.

However, it is obvious from this case study that no deliberate attempt has been made by the Government so far to formulate a unified and comprehensive district energy plan. The review of the issues that hinder systematic rural energy planning in Bhutan indicates that the obstacles are a function of a combination

of factors. At the regional level, the economic viability of different options, the cost to individual households, and the manageability of technology by villagers are the crucial factors determining energy planning.

At the national level, the present system of government organisation, with ministries and departments structured along sector-specific hierarchical lines is not conducive to promoting a comprehensive rural energy plan, the components of which cut across various sectors. Therefore, there is an urgent need to review the functional responsibilities of the sectors involved in providing rural energy, such as the Department of Power, the Forest Department, the Public Works' Department, the Science and Technology Division, and the district authorities. The consideration of rural energy within a sectoral context leads to inefficient and piecemeal planning. However, the need is for comprehensive energy planning which takes into account the differential energy requirements of various regions from different sources of energy.

It seems that rural energy planning in Bhutan will continue to be undertaken by different sectoral departments in isolation. Nevertheless, the Government is clearly concerned with improving the supply of various forms of energy in a way that is in tune with local conditions. In most cases the perceptions of local people concerning the priority and relevance of new programmes are not taken into consideration in implementing these programmes. As a result, the fulfilling of physical targets becomes the main concern, with relevance and impact becoming secondary concerns.

Another important feature of rural energy projects implemented in Bhutan is their dependence on foreign assistance. As a result, implementation decisions are sometimes modified to reflect grant conditions, such as location of projects near motor road heads. Even in the implementation of fairly simple programmes such as improved cooking-stoves, reliance on external funding and technical expertise has led to the selection of villages on an ad hoc basis.

While it may be possible to implement rural energy programmes on an ad hoc basis, the advantages of a systematic rural energy plan are numerous. The preparation of a systematic and comprehensive energy plan allows us to identify the needs of different regions for different forms of energy. Once this basic information is available, programmes related to different forms of energy or the introduction of new technologies can be implemented with increased relevance to the region.