

## SUMMARY AND CONCLUSIONS

The energy situation in Almora District represents a typical case of the Central Himalayan Region of India where the majority of the population is dependant on traditional sources of energy such as fuelwood and agricultural wastes. Commercial sources of energy, among which electricity, kerosene, LPG, and coal are prominent, account for only a small percentage of total energy consumption.

Lighting is the principal end use of kerosene. Urban households use kerosene also for cooking. Those urban households that have access to electricity use it mainly for lighting. Electricity is also used in some areas for lifting water, irrigation, and drinking water purposes. Only five per cent of the total villages in the district are supplied with electricity. The consumption of coal and LPG is negligible.

The primary source of energy in the district is fuelwood. Fuelwood is sold in urban areas through formal as well as informal marketing systems. The informal marketing system constitutes a large number of villagers who collect fuelwood and sell it in the foothill towns. *Khyoa*- producing industries, the most important type of industry in Almora, consume a substantial volume of fuelwood. For various reasons, forest resources have been exploited at an alarming rate without much attention given to their regeneration. An extensive effort to improve the biomass situation in the district is long overdue.

The strategy for energy development in the district should focus on reducing the biomass energy consumption and on improving the biomass fuel supply in the district. It should also promote rural electrification by extending the electrical grid and expanding the electricity generation capacity.

The existing local institutions such as the *Van Panchayats* provide readily available grassroots' level network for energy planning and management. However, the present organisation and management of *Van Panchayats* are too weak to accomplish the desired level of effectiveness. This is partly due to inadequate support from the district level forest unit. *Van Panchayats* have limited access to the fund generated through the sale of forest products. In addition, the skills of the functionaries of *Van Panchayats* are inadequate for mobilising funds and implementing programmes. Hence, grassroots' level institutions must be strengthened in order to accomplish effective decentralised energy planning and management.