

## 6. PARADIGMS SHAPING THE PRESENT ENERGY USE PATTERN

The development paradigms which have shaped the present trend of unsustainable energy use patterns in the HKH region are briefly illustrated in the following paragraphs.

The agriculture-led development paradigm focussed on increasing the productivity of basic food crops to meet the objectives of food security without establishing sufficient infrastructure (access to market, information and technology, and the provision of energy) and associated costs to support the rural economy. In this process, the mountain-specific opportunities for growing high-value energy-intensive, agro-based or skill-based commodities always remained marginal. As a result no technological innovation occurred. Consequently, the quantity and quality of energy requirements received no attention and thus technological and institutional innovations in the energy sector did not occur.

The industrial development strategy completely neglected the fact that resource degradation and consequent change in the environment entailed a cost to the society. For example, forest resources, always viewed as a source of national revenue, led to large-scale felling in accessible mountains areas. Therefore, the accessibility of mountain areas became instrumental in the destruction of the environment rather than enhancing the economy. The regeneration of forest resources never received priority for investment in the name of providing social infrastructure in the mountains. The resources that were available in the mountains always found their way to the plains and whatever value-addition occurred it was to the advantage of the population living outside the mountain economy.

Fuelwood from forests remained a main source in the newly-created demand for energy (i.e., for incoming tourists, road construction, and cottage industries) without considering energy technology interventions or without expanding the supply base of the energy resources and cost of afforestation. The cost envisaged for fuelwood extraction from the forest was the opportunity cost of collection rather than its real resource cost. The new areas opening for tourism, as well as cottage industries, did not consider energy as a constraint that might pose a threat to their growth in future.

Traditional belief is that the emerging energy transition in the HKH region can be made sustainable with the provision of imported fossil fuels and by minimising the cost of

transaction by improvement in accessibility. This is reflected in the increasing share of fossil fuels with increase in the per capita income level, even in Nepal where dependency on imported fuels is increasing. This strategy may be suitable in countries where mountain areas do not form a large part of the landmass, but this is not the case in largely mountainous countries.