## The Himalayan Dilemma

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The last one and half decade witnessed the growing interest amongst ecologists, geomorphologists and environmentalists in Himalayan conservation and regeneration. The most talked about movement against deforestation was led by womenfolk of the Garhwal region. It is populary known as "Chipko movement". How far this movement has reversed the trend of Himalayan deforestation is a matter of debate.

The book contains ten chapters dealing with the physical and socio-economic dynamics of the Himalayan region. First chapter is concerned about the environmental degradation of the Himalayas. The authors reviewed the historical information and opined that the human impacts, principally those of subsistence farmers were not at all negative. They cited most of data and photographs from the Nepal Himalayas. But if one trek in the present inner Himalaya of Garhwal Kumaon and Himachal Pradesh, then it is distinctly evident that population explosion has led to the demand for more terraces for farming. This is causing the deforestation of hill slopes and progressive shifting of the village hutments. This type of trend is noticeable on a trek from Ghuttu to Khatling in Garhwal Himalayas and Manikaran to Ticku glacier in the Parvati valley of Himachal Pradesh. Chapter two deals with the standard geographical overview of the Himalayas. Chapters 3 to 6, however, details the physical aspects and linkages with the theory of environmental degradation. The linkages established (1) Population growth→deforestation→increased soil erosion→landslide activity and (2) Deforestation→ hydrological changes in regime→soil erosion → sediment transport. Most of the established are valid. But in my view, the disruption of hydrological regime is linked to the snow and ice cover of the Himalayas which is under the threat of necession due to local CO2 increase by the extensive deforestation and increase in vehicular traffic in the inner Himalayas. Chapters 7 and 8 discuss in detail human aspects of population like poverty, growth rate, and demand on limited natural resources. The authors again in these chapters drawn their conclusion on the basis of Nepal data. How far their extension to the

Indian Himalayas is valid, is a matter of debate. Chapter 9 reviews all the preceding chapters and discusses, in detail, the impending crisis which according to the authors is due to social economic institutional and political situation. The combined effects of these factors will led to environmental degradation. The Indian Himalayan region does not and is not likely to face drought on a wider scale in near future. But if the present trend is not reversed in the coming decade, then the super-crisis is imminent.

Himalayas is the largest reservoir of snow and ice outside polar region and support multitude of glaciers. It is estimated that the glaciated area in Himalaya is around 50,000 km<sup>2</sup> whereas the snow covers over ten times of this area during winter. Glaciers occupy around 17% of the total mountain area in Himalaya. The entire water resources potential of Himalayas is linked to snow and ice. It is very surprising that there is no chapter dealing with the glaciers and their role in sustaining the water resources of Indian sub-continent. Glaciologists fear that the Himalayan glaciers are receding at a faster rate and if this trend continues, most of the Himalayas glaciers will disappear in the next 300 to 350 years. If this happens, not only the Himalayan region, but the entire World is going to witness one of its worst ecological disasters.

The concluding chapter ten focusses on the research to be adopted for the Himalayan region. In my opinion an integrated insight into the ecological, geomorphological, hydrological and social aspects from the data collected from the entire Himalayan region will give a holisstic picture of entire Himalayas.

The present volume is a valuable adition to Himalayan knowledge. It sets out to examine the impact of subsistence farming and population explosion on the ecology of the Nepal Himalayas. The book covers a wealth of material of interest to sociologists and ecologists. It will also be an invaluable source of reference material for Himalayan research especially pertaining to environmental degradation in Himalayas.

On the whole, however, the volume is slickly produced and mainly concern the validity of the theory of Himalayan environmental degradation. Most of the data and examples given are from Nepal Himalayas.