

Day One

Technical Session One

Chairperson
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OVERVIEW OF THE KANCHANJUNGA AREA, NEPAL

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Introduction

The Kanchanjunga area is situated in the Taplejung District of northeastern Nepal. The district is linked to the *Terai* by a new access road. Taplejung is also accessible by plane from Biratnagar and Kathmandu. The climate is variable depending on its location along the elevation gradient. The district has a broad elevation range of from subtropical to nival bioclimatic zones.

The climate, compared to the rest of Nepal, has a prolonged wet season caused by the early arrival and late departure of the monsoon (Stainton 1972). Most of the district is exposed to the full force of the monsoon and has humid summer conditions. A small area at the headwaters of the Tamur *Khola* is the exception, having dry inner valley conditions (Stainton 1972).

The topography is characterised by narrow V-shaped valleys with steep side slopes. The area is drained by the Kabeli, Simbuwa, Gunsa, and Yangma rivers which are tributaries of the

Tamur River. These Rivers cut deeply into the mountains, creating deep gorges. Demographically, the district is relatively sparsely populated, the estimated population being 122,072. The dominant ethnic groups are the *Limbu*, *Bhotia*, and *Sherpa*. The population is concentrated in the lower parts of the district.

A recent study of Kanchanjunga area states clearly that the area is unique

Plate 1: A typical Limbu house: Mamankhe (1,800m)



Photo: Devendra Amatya

in terms of rich biodiversity, cultural heritage, and geomorphology.

The National Conservation Strategy of Nepal, which is endorsed by His Majesty's Government, recommends giving highest priority to the establishment of one or more protected areas on Nepal's borders. The protected areas will help preserve rare or endangered species and protect genetic diversity and essential wildlife habitats.

According to the National Conservation Strategy for Nepal, the Kanchanjunga area meets four out of six criteria to qualify as a protected area. The four criteria are:

- a) contains sites of significant religious, cultural, archeological, or historic value;
- b) contains examples of outstanding site-specific or unique land forms or geomorphic features;
- c) contains sites necessary for the preservation of genetic diversity; and
- d) contains habitat essential for the protection and promotion of rare and /or endangered species.

The Department of National Parks and Wildlife Conservation (DNPWC) has already forwarded the proposal to declare the Kanchanjunga area a conservation area to the Ministry of Forests and Soil Conservation. It is expected that the Kanchanjunga area will be declared and gazetted as a conservation area within a month or so.

Challenges and Threats

However, there are a number of challenges and threats facing the conservation of Kanchanjunga area. Some of them are discussed briefly here.

Forest Degradation

Local People are dependent upon the forests to meet fuelwood, fodder, construction, and heating needs through-

out the conservation area. Expanding population and increasing tourism may result in degradation of forest resources, especially in critical high altitude areas.

Slash and Burn Agriculture

Shifting cultivation is common in the area and the time span between cropping has declined significantly, resulting in decreased agricultural productivity and increasing incursion into forests and wildlife habitats.

Lack of Trained and Equipped Natural Resource Managers

The impact of the District Forest Office in the Kanchanjunga region has been limited due to inaccessibility and staff shortages; there are no DNPWC staff in the area currently.

Lack of Integration between Local Resource Users and Central Authorities

There is insufficient information about the relationship between local people and natural resources in the Kanchanjunga area. Furthermore, local institutions managing natural resources have not been integrated into local development initiatives.

Inadequate Physical Infrastructure

There have been few government projects in the region, therefore the area lacks even the most basic physical infrastructure. This absence of physical infrastructure has hampered the development and marginalised the region's economy.

Lack of Social Infrastructure

Basic facilities providing social infrastructure such as schools, health care posts, and veterinary clinics, are absent and/or inadequate in the conservation area. Furthermore, women, low castes, and non-Hindu ethnic groups have been marginalised.

Lack of Information on Kanchanjunga's Flora and Fauna

There is a lack of accurate information on flora and fauna, especially on threatened species. Local informants indicate healthy populations of snow leopards (*Panthera uncia*), blue sheep (*Pseudois nayaur*), and serow (*Capricornis sumatraensis*). Very little, though, is known about the habitat status and population trends of these and other threatened species such as the Himalayan musk deer (*Moschus chrysogaster*). There is no information available on the numerous small mammals that are found in the conservation area. Several large birds of prey and pheasants inhabit the area and their status needs to be investigated.

Overgrazing of Rangelands

The dangers of overgrazing and associated soil erosion have been recognised for many years in Nepal. High elevation grasslands and forest areas in Nepal are deteriorating as livestock numbers increase. Overgrazing by domestic livestock and increased competition for forage may directly threaten Kanchanjunga's blue sheep (*Pseudois nayaur*), ghoral (*Nemorhaedus goral*), and serow (*Capricornis sumatraensis*) populations. However, local people, by tradition, have the right to graze their animals on the pastures and in forests of the Kanchanjunga area.

Incursions into Habitat and Poaching of Threatened Wildlife

Kanchanjunga's unique Himalayan larch and extensive juniper coverage face immediate threats from incursions. Hunting by local people and government employees is reported to be a big problem in the region; the extent of poaching, though, is poorly understood.

Inadequacy of Tourism Infrastructure

The Kanchanjunga area is unprepared for the impacts of tourism. Increased tourism, if unplanned, could have a harmful effect on the indigenous cultures, local institutions, and ecosystems. However, in an area like Kanchanjunga, it appears that without economic and infrastructural inputs, as well as tourism income, the local cultures and institutions are just as likely to suffer.

Based on extensive discussions between the local people and the Department of National Parks and Wildlife Conservation/World Wildlife Fund (DNPWC/WWF) teams, it is clear that the residents of the area would welcome the economic benefits tourism has brought to other areas of Nepal — e.g., the Khumbu region. There is a general belief that tourism will bring prosperity to the region. However, the local people are neither aware of the nature of tourism enterprise, nor do they have the funds to develop tourism facilities.

Emigration and Cultural Decline

Emigration from the Kanchanjunga area is a growing phenomenon. Generally, the wealthy and the economically marginalised emigrate to the district centre, the *Terai*, or to Kathmandu. The case of the



Photo: Devendra Amatya

Plate 2: Pasture land at Tseram with yak herd (2,500m)

Digichiling Gompa (monastery) of Olangchung Gola succinctly illustrates the effects of emigration and the economic decline of local cultural institutions. The massive and elaborate (*gompa*) monastery was built when Olangchung was one of the wealthiest trading entrepôts in the Himalayas. Now, many of Olang-chung's wealthy and influential residents have left; since the local community is now smaller and less prosperous, the monastery is experiencing a severe crisis in terms of both finances and personnel. Unfortunately, other communities of the Kanchanjunga area are in the same situation. Without investment in infrastructure and income-generating activities, many cultural institutions could disappear because of lack of local support.

Transboundary Conservation

The Kanchanjunga mountain system forms the border of three nations: Nepal, India, and China. So far, there have been no coordinated efforts to conserve this unique ecosystem and control threats such as those of poaching, habitat incursions, and over-harvesting of plants.

Priority Areas for Conservation

It is imperative to identify priority areas in the Kanchanjunga region before

managing it as a conservation area. The following areas have been considered important because of their size, relatively undisturbed nature, and their vulnerability to human-related disturbances (Yonjon 1996).

Amjilhasa - Khambachen

This area of rich biodiversity is comprised of settlements such as Pholey, Gyaphla, Ghunsa, and Khambachen. The maintenance and management of natural resources, especially high-altitude forests and pasture lands, are important. Above Amjilhasa, denuded oak forests signify overgrazing. The monitoring of yak and domestic sheep populations will be central concerns when dealing with subsistence issues in the area.

Ghunsa - Mirgin La

Combinations of Juniper (*Juniper indica*), rhododendron (*Rhododendron sp*), and birch (*Betula sp*) forests are impressive in this area. There is a wide diversity of bird life. The forests close to Ghunsa are already showing signs of human-related disturbance. A few alpine pastures are highly degraded because of grazing and further abused by organised trekkers using them as camping grounds. This area is also the prime habitat for snow leopards.

Ramje - Tseram

Ramje and Yalung are prime habitats for both snow leopards and blue sheep. Lower Tseram provides a habitat for red pandas (*Ailurus fulgens*) and other ungulates such as musk deer (*Moschus chrysogaster*), goral (*Nemorhaedus goral*), and serow (*Capricornis sumatraensis*). Because this area is a main thoroughfare for cattle movement, rapid habitat degradation is possible.

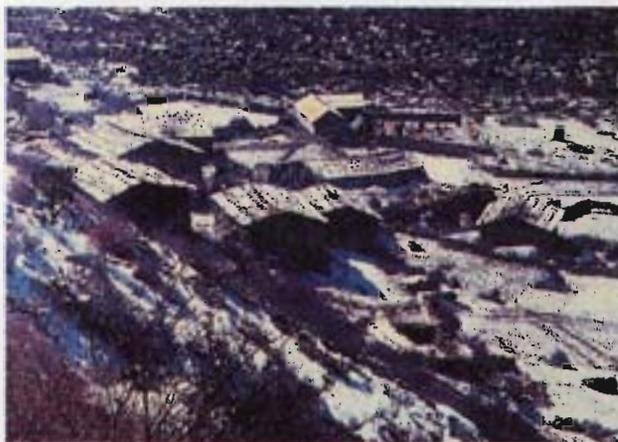


Plate 3: Khambachen Village (4,000m)

Photo: Devendra Amatya

Deorali Danda - Amje Khola

Deorali *Danda*¹ is contiguous with Tseram, although dissected by the Simbuwa *Khola*. Excellent stands of *Tsuga dumosa* and *Abies spectabilis* also exist here. Some slash and burn activities have begun in the temperate evergreen forests at lower elevations.

Carpenter et al. (1994) reported Dhupi *Danda* (2,480m) between Omje *Khola* and Yamphudin to contain the most diverse forest stands in the Kanchanjunga region. Further work would reveal if such floral diversity also incorporates similar diversity in fauna.

Olangchung Gola - Yangma

This valley consists of conifer forests and shrubs with a large expanse of grazing area. This area is famous for blue sheep and snow leopards. The area is also part of a trade route to Tibet.

References

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Discussion

Mr. Javed Hussain from WWF, Thailand, wanted to know what would be the legal definition of the proposed gazetted area. The other observation he raised was that the different zones did not seem to fit very well with the traditional IUCN (The World Conservation Union) categorisation, because they overlapped and there seemed to be a need for a functional definition rather than a special definition. How could that be accommodated with the overlapping of functions? The third question was that the presentation seemed to suggest that there were a lot of problems in the different systems. What would be the advantage in terms of conserving the area by taking it from a national status to a transboundary status?

Dr. T.M. Maskey replied that there was already a provision for declaring this conservation area in the gazette, and His Majesty's Government could declare any area by designating the boundary of the area a conservation area. The main objective of the conservation area, as already mentioned, was to protect the area with people's participation.

Regarding the second question, there were problems because at the moment there was no legal way to control all the destruction that was taking place in that region. Once the area was declared a conservation area there would be a legal framework to protect the conservation area which could minimise all the damages. Preparation was already in process for the management and the operational plan for the area. Work would begin accordingly.

Regarding the third question, as Mingma Sherpa had already men-

¹ *danda* = hill, cliff

tioned, there already was transboundary conservation in Qomolangma National Park in Tibet. In Nepal, Sagarmatha, Langtang, and Makalu Barun were transboundary areas. With these experiences one had benefited in terms of awareness of conservation problems in border areas. If there was no trans-boundary conservation concept, there would be no communication at all and it would be difficult to identify the problems. There had been one trans-boundary conservation meeting with the Indian authorities two months previously and problems of the border areas had been discussed

to reach a solution to help protect the flora and fauna in that area. Similarly, a visit had been made to the Tibetan Autonomous Region of China for discussions. Nepalese people along the border areas went to Tibet to poach and steal timber. Similarly, Tibetan people came to Nepal to steal animals. Therefore, ways of controlling these activities were discussed and a local-level coordination committee was formed with the representation officers from both areas. Therefore, the concept of transbound-ary conservation was very helpful in protecting an area.



Map 2. Kanchanjunga Range (4,000m)