OVERVIEW OF THE KANCHANJUNGA REGION IN THE TIBETAN AUTONOMOUS REGION OF CHINA

BAN ZONG

Introduction

I would like to introduce the National Reserve System of the Tibetan Autonomous Region of China. One of the largest nationally protected areas in China is the Qomolangma Nature Preserve (QNP). It is located on the southwestern border of the Tibetan Autonomous Region (TAR) and has four districts; Tingri, Nyalam, Kyirong, and Dingye. The total area of the land is 33,819sq.km. and the population is 8,000. A ten-year integrated master plan for conservation was first established in 1989 to establish a provincial Nature Reserve. Later, in December 1994, the area was approved as a National Nature Reserve.

Management

The QNP is administered through the Working Commission for the Qomolangma Nature Preserve which has its headquarters in Lhasa. This Working Commission represents 16 member organisations from various TAR departments.There are representatives from Forestry, Economic Planning, Health and Education, Tourism, Science and Technology, and the Bureau of the Environment, and a representative from the Shigatse Prefecture. The Working Commission acts as an inter-agency coordinating body, facilitating communication, cooperation, and technical assistance among, and from, its representative groups. Besides coordinating the efforts of the members, the Working Commission also has the responsibility of uniting and assisting local and county governments and departments in the management of QNP. It also has the responsibility of seeking assistance, coordinating resources available within China, and acting in liaison with international organisations to further develop QNP. Four branch bureaus have already been established in all the above four districts falling in the QNP region. The Working Commission office is located within the Forestry Department and has been recently expanded to include additional administrative and management responsibili-

Plate 7: *Primula deuterinana* (Primrose)

Photo: Krishna K. Shrestha

ties over three departments; Qomolongma Nature Preserve, Tibetan Autonomous Region Forest, Nature Preserve and Wildlife Management, including the Chang Tang Nature Reserve with a total of 13 preserves, and the Lhasa Office of the People's Republic of China representative office of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) for the protection of endangered species.

Objective

The main objective of the reserve is the conservation of nature while developing the economy, since both conservation and development complement each other. It also aims to contribute to the global conservation of nature and the promotion of exchanges with bordering countries like Nepal, India, Bhutan, and Pakistan.

International Collaboration

International collaboration has already been established with the United Nations Development Programme (UNDP) for training and capacity building; the Mountain Institute, USA; the Concerning World Development Organisation, USA; and the Foundation for Future Generations, USA, for the conservation and development of the area.

Demarcation

Ten years of development planning for the Qomolangma Natural Preserve has already been launched for the period from 1990 to 2000 A.D. The area has been divided into three zones. The Core Zone is comprised of 10,324.85sq.km. (32.45%) and is a protected area for the conservation of rare and precious plants and animals. The Buffer Zone covers 6,254.93sq.km. (18.45%) of the total land area. Development and experimental activities with less impact on the environment are allowed in this area. The Economic Development Zone covers a total land area of 16,561.30sq.km. (48.84%). This area focusses on sustainable development of agriculture and animal husbandry for local communities and eco-tourism and handicrafts' production.

Education

Education is a big problem in the area, and only about 40 per cent of the children attend school. In some parts, attendance is lower than 15 per cent due to poverty, remoteness, and lack of school facilities.

Primary Health Care

There are insufficient numbers of trained doctors and nurses and even the fundamental facilities for primary care are not available. Family planning education is very poor. Modern water supply facilities are not available in any of the villages. There is a lack of well-trained staff, so management of the area has not been efficient so far.

Training of Staff

The training of staff is a critical issue and only a few staff have training in conservation. A training centre for staff was proposed, and it has already been established, but, due to a lack of funds, there have been no activities, nor has building construction commenced. A communication and information centre is urgently needed at QNP Headquarters in Lhasa.

Nursery

Three forest nurseries have been established in the natural preserve to provide free seedlings for afforestation to the local communities in the area. The objective of this is to improve environmental conditions, living standards, health, family planning, development of agriculture, livestock, housing, and so on. The general objective of the reserve is to provide more farming opportunities and to improve the incomes of the local people.

Immediate Objectives

a. Improving mountain people's living standards and quality of life
b. Preserving and protecting the mountain environment's condition
c. Improving mountain people's health and education, training of local people in income-generating activities, self sufficiency, and micro-enterprise development
d. Improving agriculture, animal husbandry, housing, communication, and basic infrastructure

Dinggye District

Dinggye is one of the four districts falling into the QNP area. The administrative management of the district was established in 1960. There are 11 sub-districts and one township; the latter is located 510km south of Lhasa and 230km south of Zhikatze City. Kanchanjunga mountain is located towards the southwest of the district bordering Nepal and Sikkim. The total land area covered by the district is 7,560sq.km., and it is situated on the northern slope of the Himalayan mountain range. The climate in the area is dry (trans-Himalayan), cold-dry, or cold desert with strong winds for up to eight months and only 100 frost-free days. The annual rainfall is 350mm, and it falls mainly in the months from July to September. The total population of the area is 20,000 and the average elevation is above 5,000m. Six sub-districts of the area are defined as QNP protected areas. The major ethnic groups are Tibetan, *Sherpa*(s), and *Han* Chinese.

Timber is produced in an area of 2,667ha and agricultural land covers 600ha. Rangeland covers 313,600ha and 32,100ha consist of forested land. There are 800,000ha of unused land and 20,000 livestock. Forest covers 5.93 per cent of the total area and the common species are *Picea spectabilis* and *Abies sp, Larix sp*, etc. The total river length is 500km and the radiation is 3,300. The national grade I wildlife found in the area are Tibetan antelope (*Pantholopus hodgsoni*), Takin (*Budorcas taxicolor*), Himalayan Tahr (*Hemitragus jemlahicus*), Snow Leopard (*Panthera uncia*), and Tibetan sheep (*Ovis ammon hodgsoni*). The agricultural crops commonly grown in the area are barley, mustard seed, potatoes, and peas.

The level of education is very low in the area, and there are only 12 primary schools (7 public and 5 private). There are three motorable roads connected to the district. Only one sub-district, Cheng-Tang, is not connected by road.

The Future Plans of QNP[3]

How to Implement Development, i.e., Training, Education, and Promoting Comprehensive Development.

To promote village economies as a component of our master plan for QNP, we must seek to:

a) develop a mechanism for extension of micro-credit type loans to individuals and groups;

3 According to a paper received by ICIMOD from the QNP Office, Lhasa, Tibet

b) build and equip village schools;
c) train village teachers;
d) train tourist service workers;
e) train and equip village / public health service providers; and
f) provide agricultural assistance in by training and by providing suitable and sustainable crops such as apple trees.

Future Development of Areas of Interest

a) Develop a system for management information and communications between Lhasa QNP Headquarters and local branch offices.
b) Research will be introduced in the areas mentioned here.
   i. Determine optimal tree species for local consumption (cooking and building) in both mountain forest and agricultural areas, including arid regions
   ii. Develop a programme to introduce (or re-introduce) bamboo species for use in handicrafts and building materials (determine best-suited species for high yield and quality)
   iii. Animal husbandry issues relating to strengthening of herds and improvement of breeds
   iv. Solar energy research into appropriate, low-cost, and available technology and design development for cooking and heating, particularly for use in schools
   v) Research and design income-generating projects taking into consideration cultural appropriateness, existing local markets, production capabilities (quantity and quality) and the potential effects upon the family and community

Training and Education Goals

a) Train 30 young local people as eco-tourism service and management workers
b) Train 20 local people in mountain village economic management and development; to include the fundamentals of business management and production, distribution, and marketing issues
c) Practical training in production techniques appropriate to the QNP economy, i.e., spinning, weaving, knitting
d) Agricultural training development (including for vegetables and fruit production)
e) Comprehensive training to facilitate management and development as defined by the QNP Master Plan
f) Assistance in providing higher post-graduate education and training in forest management and biological sciences

Practical Field Models

a) Apply the available research for re-forestation and test assumptions by planting trial forests to determine the acceptability and effectiveness of species and management techniques
b) Develop bamboo trial forests as above
c) Solar heating for schools
d) Develop physical facilities (mountain hut systems, solar toilets, etc) to preserve and protect fragile and overused areas such as the Everest Base Camp, Kamma Valley, etc
e) Complete building and equipping of the training centre inside QNP
f) Establish an eco-tourist system and network of tourist services
g) Domestication of selected wildlife for production of traditional medicines to minimise negative effects on species in the wild, e.g., musk deer (*Moschus chrysogaster*)

Policy and Research Appraisal and Development

a) Develop a plan for resource use within the QNP and 12 other TAR

Forest and Wildlife Preservation Areas

i) Appraisal and definition of available resources for all TAR Forest and Wildlife areas
ii) Determine permissable use of forest resources, for example, maximum sustainable harvesting limit for cooking and building uses
iii) Define potential for domestication of wildlife, as above, to preserve species in the wild
iv) Formal appraisal of Chang Tang and Medog Nature Preserves and subsequent development of Master Plan for each

Management Department Skills' Development

a) Management training at the Lhasa Headquarters
b) Equipment needs include a high-quality video camera and related equipment, computers (desktop and portable), and simultaneous translation broadcast devices for conference attendees
c) Field worker equipment to facilitate surveys, communications, and management tasks

Discussion

Regarding transboundary collaboration between two countries, **Mr. Devendra Rana**, WWF, Switzerland, asked the representative of the Tibetan Autonomous Region to share her experiences and to point out the positive points of collaboration between the Nepalese National Parks (Sagarmatha, Langtang, Makalu Barun) and the Tibetan National Parks.

The TAR Representative, **Mr.s Ban Zong** pointed out that she had had very good experiences regarding transboundary conservation which was also known as 'Join Hands'. Bahrabise was the border area on the Nepalese side and Nehlamu was the border area on

Photo: Krishna K. Shrestha

Plate 8: *Rhododendron lepidotum*

the Tibetan side. Nehlamu fell under the Qomolangma National Preserve and Bahrabise was a part of the Langtang National Park. Transboundary harvesting of fuelwood and medicinal plants and grazing of livestock were very common in the border areas. On the Nepal side, forest management was very strict, but on the Tibetan side it was not as strict because of the new management system and lack of staff. So there was no control. But now, communications had already been established through a call for a Joint Technical Meeting of the foresters. These meetings had taken place between Bahrabise and Nehlamu over the last three years. Transboundary activities had been reduced to some extent due to communications between the border areas. One meeting had already concluded this year in which the two parties were able to talk face to face about critical issues. The meeting first highlighted the problems then looked for solutions without criticism of either party. The border areas shared common problems.

The representative from the Mountain Institute, Nepal, **Mr. Brian Penniston**, pointed out that the institution had been working with the people from both the Nepal side and QNP side. There had been a series of transboundary working visits. The first visit had taken place two years previously when the representatives of QNP were invited to Nepal to visit the Sagarmatha National Park. This visit was a warden-level visit. This was the foundation for the second visit which took place in September-October the

previous year when a higher level delegation from Nepal visited Lhasa, Shigatse, and other sites within the QNP. This became the foundation for the third visit which was planned for the autumn of the current year at the working level; viz., Joint Technical Level. A six-point collaborative agenda had been developed and an agreement had been signed, focussing more on the common problems and the common solutions and not on criticising each other, in Shigatse in September. The points that were touched upon in the third level meetings were illegal trade issues, control of wildfires, and transboundary grazing. So they had gone from the working level to policy level to local level. Now, the next series of transboundary exchanges would focus on resolving common problems at the local level. On the Nepal side, they were focussing on the local people of Langtang National Park, currently, because the TAR officials were interested in exploring transboundary tourism in the Kerong Valley as well.

The representative from Sikkim, Mr. Gut Lepcha, pointed out that the transborder migratory species in Sikkim were Tibetan Antelopes and Greater Tibetan Sheep, which sometimes came to Sikkim and sometimes went to China. Therefore, there were certain problems concerning the protection of these endangered species. What were the measures that China had taken to protect these endangered species?

The representative from the TAR pointed out that there had been two measures taken for the protection of endangered species in China.

a) Educating the local people about national protection of wildlife. Ninety-five per cent of the local people were already aware or educated. They had established their own monitoring system to control poaching. They reported to the National Preserve Management System.
b) Poachers were fined and punished if they were caught.

Chairperson's Remarks

The Chairperson mentioned that there were three issues on the Conservation of the Kanchanjunga Mountain System. The current situation was uneven. The Sikkim side had already established a well-managed system for the protection of the Kanchanjunga Mountain System. In Nepal, the government had already approved of and was on the verge of declaring a Kanchanjunga Conservation Area in the near future. Some basic field surveys, such as those on wildlife and vegetation, had already been carried out by concerned scientists. On the China side, the Kanchanjunga area was under the QNP. The management was not very intense in that part of the area, due to inaccessibility and remoteness, and also the vegetation was very simple and little study had been carried out in this area. This area had a very good fundamental basis for future development. The area was important from two aspects. In terms of botanical history, Sikkim was one of the most important areas in the eastern Himalayas for its high plant biodiversity; with 7,000sq.km. of area having more than 7,000 species of plants and many endemic and local medical species which were highly endangered. Secondly, this area had a large number of ethnic groups, so when one talked about conservation of biodiversity one should not forget about conservation of cultural diversity. We must work hard to push for conservation of Kanchanjunga as a large transboundary protected area by keeping these two important factors in mind. The Chairperson closed the session in thanking the three speakers and the participants.