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## TREKKERS, ROADS, AND DEVELOPMENT IN MANANG, NEPAL - HIMALAYA

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### MANAGING MANANG

Nepal's Annapurna has nature's marvels. Nine mountain peaks over 7,000 m with the towering Annapurna massif (8,091 m), world's deepest valley along the Kali Gandaki River, rare species that include 28 plants, eight butterflies and a mouse hare, found nowhere else (Yonzon, 2001). Add to it, two distinct climate as its southern region receives 3,000 mm of annual rainfall and only 250 - 500 mm in the north. All these geographic features and biological rarities, are presumably safeguarded in the Annapurna Conservation Area (ACA) (7,629 Km<sup>2</sup>). With over 48,000 trekkers who bring the much needed money, tourism is mis-matched with scarce resources, prompting Manang's ecological footprint to grow each year.

Manang District, a food-deficit area of 1,914 km<sup>2</sup>, lies in the rain shadow of the Annapurna. The District has three valleys: Nyeshang, Gyasumdo, and Nar Phu. In Nyeshang, the Gurungs primarily subsist on agriculture and animal husbandry while Manangis (*Nyeshangba*) and Tibetan immigrants fare well on trade/barter. Likewise, the Gurungs and many families of Tibetan origin, live in Gyasumdo and Nar Phu has more of Tibetan origin, who rely heavily on animal husbandry that include cattle, yaks, horses, sheep and goats owned by rich families from the Nyeshang Valley. Seasonal food deficit and harsh winter accentuate annual migration and over 80% of the population do migrate to Kathmandu, and several Indian cities.

At present, a 107 km road is under construction to connect Manang with Nepal's road link. Highways, all weather roads, feeder roads are all good because they bring benefit by linking local markets with opportunities outside, provide employment, goods and services, access and provision for education, health and communication. Given these, my attempt is to trace jagged edges of development in Manang, without undermining the greater benefits it brings, which stretches from poorer households to regional disparity.

### TOP TEN

Besisahar is the nearest road point, from where trekkers walk 5 - 7 days to reach Manang, a rugged Tibetan

landscape with rich culture and scenic beauty. It is a major trekking destination in Nepal and also, a major site of the 21-day Annapurna Circuit Trek. The Circuit is listed in the top ten trekking destinations in the World ([www.iexplore.com](http://www.iexplore.com)).

### PAST AND PRESENT

Once, the Manangis had a full-fledged *Khamba-Ngerba*, a traditional village council, to manage their natural resources and communities. It appears that *Khamba Ngerba* was similar to the present day, Village Development Committee (VDC). The council used to generate revenue from the livestock, land holdings and forest resources. Penalty from disputes and violations of regulations were other sources of income. Livestock was the main stay until the invasion of Tibet in early sixties. A mass immigration of the Manangis, was noticed until early eighties. By then, almost two-third of the population had migrated to Kathmandu. As Manang was opened for foreign trekkers in mid seventies, the first hotel was built in 1976 and now the Manang Village has more than 45 hotels with a capacity of over 1,000 beds. Annual number of trekkers in Manang, average between 8,600 - 15,000 and equal number of porters and guides accompany them. Given the extremely harsh climatic conditions and low productivity of the land, tourism now has become the integral part of their livelihood.

### COMMUNITY AND LIVELIHOOD

Manang Village (28°27'-28°54' N and 83°40'-84°34'E, elevation: 3,536 m, annual rain: 436 mm) is the largest village in the Neshyang Valley, with one third of the district human population (2,243 out of 9,432). It covers 23,205 ha of land with 42% rock, 28% ice, 23% grazing land, 3% forest, 3% shrub and less than 1% of farm land. Average household (hh) land is 0.16 ha (Gurung, 1995) which is far below the national average of 0.96 ha/hh. Crops are limited to wheat, buckwheat, potato, mustard and vegetables. Gurung (1995) reported that 163 households, produce 92 metric ton (mt) of grains each year in Manang which supplies only 67% of the grain requirement (650 pax; assumption: 210 kg of grain/pax/year as per WHO standard) and the deficit of 33% of food requirement, is imported.

Although grazing land is limited to 5,375 ha, livestock is a major occupation. Alpine grass land contains a mosaic of herbs, grasses and sedges with such widely occurring genera as *Kobresia*, *Danthonia*, *Potentilla*, *Iris*, and *Bistorta*. Local traditional rotational grazing system, *Toshom*, is practiced in all eight grazing blocks (Tarken, Guntang, Genjang, Ledar, Bojotong, Humde, Tenah, and Mainah). In Manang, total livestock unit (LU) was estimated at 841 in 2001 which has increased from 403 to 609 in 1990 and 1995, respectively. Total dry matter (DM) production from grazing land is estimated between 536 – 1,075 mt per year suggesting the land can support 276 - 551 LU (assumption: one LU requires 1.95 mt DM/year) (HMG/N/USAID, 1986). Crop residue mainly of wheat and buckwheat provide 123 mt of dry matter which can be sustain additional 65 LU (Gurung, 1995). There is a net deficit of 439 mt of dry matter and livestock population is over 37% more than the land can hold. Perhaps such loss is reflected on shrub quality, forest cover and displaced wildlife population.

### IS FOREST SUSTAINABLE IN MANANG?

All north facing slopes have forests of pine (*Pinus wallichiana*), birch (*Betula utilis*) and fir (*Abies spectabilis*). South facing slopes show degraded shrubland with species of *Cotoneaster*, *Potentilla*, *Juniperus* and *Rosa*. Blue pine is the only timber. Total forest land (831 ha) in Phrawala, Tesing, Bojo Tong, Kone, Tenah, Mainah and Humde blocks show limited, slow regeneration. Despite over 200 valuable medicinal plant species in the Valley (Pohle, 1990), Manangis were never involved in medicinal plants trade. However, 47% of all households in the Gyasumdo, collect medicinal plants to supplement their income (Shrestha and Sah, 1995).

Some 826 m<sup>3</sup> of timber and 4,178 m<sup>3</sup> fuel wood have been estimated as yearly yield for the forests in Manang (Gurung, 1995; Das et al., 1996). It is estimated that a household consumes 1,039 kg of fuel wood yearly (2.85 kg/day) as opposed to a lodge which burns 1,227 kg (3.37 kg/day). Each year, trekkers (averaging 8,607 persons without porters and guides) and resident people (2,243 population) need fuel wood amounting to 2,748 m<sup>3</sup>/year and sustained yield from Manang forests is 4,178 m<sup>3</sup> bringing a deficit of 1,430 m<sup>3</sup>. Still, lodges are heavily dependent on firewood as only 13% of lodges use kerosene (Ryan, 2001). Local councils have banned timber harvest even for household maintenance. In 2001, a hotel was built with timber transported from the neighboring Pisang VDC. In 2005, Pisang VDC banned all timber transport because of rapidly shrinking forest, and high demand for timber in Manang.

### DOES TOURISM BRING COLLECTIVE BENEFIT?

Probable externalities in Manang, include both negative and positive of tourism that need intensive management activities and extensive plan. Annapurna Conservation Area Project (ACAP) was established in 1986 under the King Mahendra Trust with a provision

of legal authorities to manage it. Using a bulk of trekking fee as revenue, ACAP has on-going activities on tourism and resource conservation. However, Ryan (2001) indicated only 38% of lodges currently have access to waste management facilities in Manang. Incinerators and clean drinking water depots (ozonated) with several clean up campaigns in the past, need constant watch. To minimize the firewood consumption, a micro-hydro project (with capacity of 20 KW), a kerosene depot (capacity of 2,000 liter) and numerous back-boilers, space heaters, solar water heaters, improved stoves were installed by ACAP. The micro-hydro at Sabje Khola with capacity of 80 KW, initiated by Nepal Electricity Authority with a purpose to supply power to the entire Nyeshang Valley, is not enough even for lighting every households today.

Average tourist daily expenditure is NPR 747 (US\$ 1 = NPR 71) (Baskota and Sharma, 1993) which translates into NPR 12,858,111 (US\$181,100) as yearly earning from trekkers in Manang (assumption: on average, 8,607 trekkers stayed for two days). Only 45 households directly benefit as they own lodges out of 387 households in the Manang Village. Financial gains from tourism may accrue more to outside for importing food and facilities rather than locally. Also, uneven distribution of economic benefit within households is evident.

### TIMES ARE CHANGING

Development works better under scrutiny and guidance. External influences with buying power can influence traditional system or culture. There are over 30 *bhattis* (local bar), three video parlors, one disco and several cyber cafes. Other example is about women in Manang. *Khamba Ngerba* customs prohibit Manangi women to marry outsiders (non-Manangis) until 1997. Custom violation would end up in paying a penalty of NPR 50,000. With advent of tourism, the bulk of tourist lodge employees were non-Manangis from nearby districts such as Dhading, Gorakha, and Lamjung. As more outsiders who worked in Manang, married Manangi women in the last ten years, the penalty was reduced to a paltry sum of NPR 5,000 in 1999 and abolished in 2001. Now, at least 15% households are considered Manangis with outside origin.

*Khamba Ngerba* system brings festivals and rituals like *Yartung* (horse race) and *Metha* (archery). Religious sites like Tarkya Ne, Angmu Ne, Tukche koro, Bocho Gompa, and Melerepa caves are still revered with distinct traditional values. Given the ever-changing local and national political landscape, *Khamba Ngerba* will wane unless proactively pursued and adapted to new laws and regulations including tourism, to bring community cohesion through economic benefits.

### NOW, THE ROAD SHOW

In 2005, the National Planning Commission (NPC) initiated a project to build a two phase road: 1) the

Besisahar - Chame Road (62 km, elevation: 791 - 2,670 m); and 2) the Chame - Khangsar Road (45 km, elevation 2,670 – 3,750 m). NPC initiated the project in the spirit that every district must have road linkages to bring all districts at equal level of development activities (Fig.1). The Besisahar-Chame Road is currently built by the Army, with project objectives to enhance economic growth, reduce poverty and address environmental degradation. In 2005, the construction began without environmental impact assessment (EIA) which is mandatory in Nepal. Only initial environmental examination (IEE) is available for the Project.

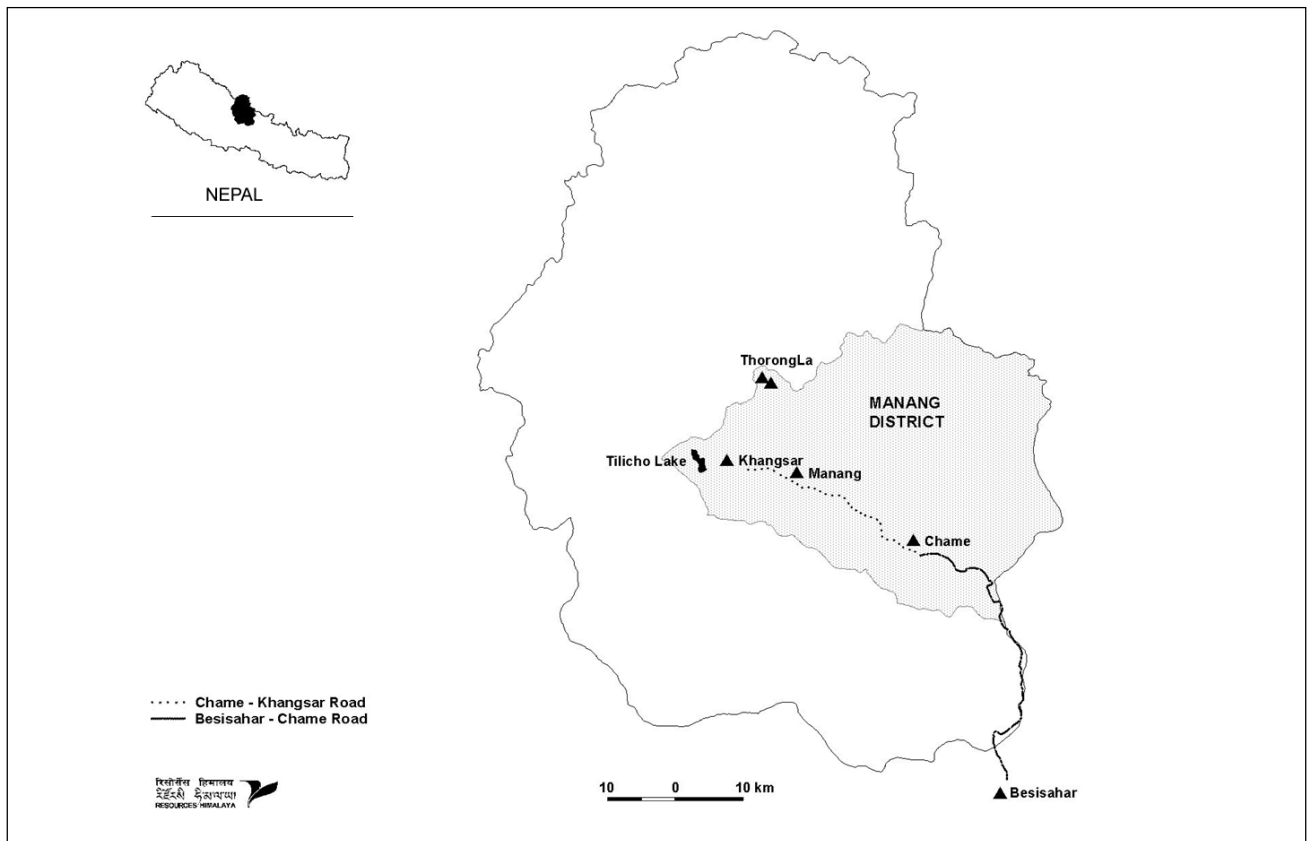
The Besisahar-Chame Road Project is in the Annapurna Conservation Area which has legal governance of Conservation Area Management Regulation (1993) and Conservation Area Management Direction (1999). In addition, Environmental Protection Act, 1996 and Environmental Protection Regulation, 1997 clearly mandate that any or all projects proposed for implementation in the National Parks, Wildlife Reserve and Conservation Areas should undergo detail Environmental Impact Assessment (EIA) process. Because of the authority pretentiousness that the State can make or break any rules, this override has self-defeated the Government in protecting environment. It cannot get worse than this!

The IEE on Chame-Khangsar Road Project, states that the road begins from Chame (Lower Manang VDC) to Pisang, Bhraka, Manang, Tanki Manang and Khangsar (upper Manang VDCs). The fund for the road is to be

provided by the DDC, VDCs and Manang District Development Society. However, consensus about the Project is being debated between the Kathmandu-based Manangis who promote road development and resident elite Manangis who have lodges and hotels and favor trekkers. The Kathmandu-based Manangis argue that all 130 hotels and 144 tea shops benefit only 1.7% of the total households. In addition, the five day walk would be effectively reduced to five hours travel. Other benefits include: 1) easy availability of alternative fuels such kerosene, petroleum products and hydropower; 2) creation of markets within and outside for local produce; 3) cheaper transport, and accessible journeys for all age groups; 4) widespread of tourism activities in areas otherwise secluded such as Tilicho lake; and 5) an increase in volume of regional and local tourism.

The opponents have different views. They suggest that over 300 porters will become unemployed due to competition from quicker, cheaper transportation of goods by road. These porters who earn NPR 10,000 per month, who have no other skill, would loose their livelihood. Twenty three village sites between Besisahar and Chame will receive fewer or no tourists. Chame and Manang will have a higher immigration, resulting in loss of agriculture land and forest, scarcity of water, sewage problems and if not managed, slums like situation. Also, people who herd 350 mules for transporting goods, have to look elsewhere to make their living. Opportunity for some 15,000 – 16,000 guides and porters who travel all the way from Kathmandu, would also be curtailed.

Figure 1. Annapurna Conservation Area with the Besisahar-Chame-Khangsar Road Project.



## IS EIA EXPENDABLE IN NEPAL?

Nepal has signed 21 international conventions to safeguard environment and natural resources. There are eight government working plans, and stringent environment laws. EIA key stakeholders are all government institutions that include Parliamentary Committee, National Development Council, Environment Protection Council, National Planning Commission (NPC), Ministry of Environment, Science & Technology (MEST), Ministry of Forest & Soil Conservation, Ministry of Industry, Commerce & Supply, Ministry of Local Development, Ministry of Agriculture & Cooperatives, and Ministry of Water Resources.

Given the institutional muscles and legal teeth and claws to protect environment, is Nepal well protected to sustain long-term development? The answer is not clear. Many sectoral agencies white wash the EIA, just as formality. The MEST has approved 25 EIA reports until 2004, and it has not monitored them (ADB, 2004). Therefore, EIA has become an 'add-on' project burden. Perhaps, this is a reflection of the past into present, and NPC has deemed that the Besisahar-Chame Road Project need no EIA scanner. No wonder, the ADB Report 2004 suggests that EIA issues are acute in Nepal.

## ANTICIPATED FALLOUT

Manang Village may remain under threat in the long run. The village communities and their natural

resources will have significant impact for the following reasons: 1) With more vehicles, Manang Village can get over-crowded with volume trekkers as they need to stay at least two-three days for acclimatization before heading to Thorong La, a popular high pass at 5,416 m; 2) Immigration in Manang, will be overwhelming as it is the end station of the road alignment, where all job-oriented people in tourism, transport, hotels and markets, need shelter and food; 3) Maximizing benefits from tourism may not happen because accommodation tariff war, compromise in quality service, unreliable water supply and sanitation; 4) high altitude forests around Manang, will be impacted unless stringent rules are made and enforced on fuel wood usages and timber; and 5) covert activities can easily proliferate, damaging wildlife resources. Such examples are many in the India Himalaya.

There is nothing such as good or bad development. It goes sour only when communities are undermined. Therefore, knowing who should benefit from roads in Manang, will remain crucial? Who should have the decisive role to carry responsible, high altitude tourism that will not degrade environment? Benefits of development arising from mountain roads, is a common property resource. Therefore, mountain communities should jealously safeguard themselves from market-based corruption and individual interest which are the worst of all human wrong doings when unplanned development happens.

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