

# Road to social and economic transformation of RIA communities in Terhathum

Arjun Poudel<sup>i</sup>

## 1. Connectivity to the national road network system

Track opening of 26-kms long Basantapur Myanglung Feeder Road started in 1988 took 10 years to complete to fair weather standards to connect Terhathum district headquarters with national road networks system using heavy machines and equipment, the conventional approach of road construction. It's now 13 years for Myanglung, the district headquarters of Terhathum, has had a dry season connection to the national road network and 10 years since this was upgraded to all-weather standard. The DFID, UK Aid grant-financed Rural Access Programme implemented road geometry improvement and spot improvement works to ensure all-year use following the labour-based, environmental friendly and participatory approach and complemented with socio-economic development and income generating programmes, for the targeted poor and disadvantaged households engaged in road construction works. Following the RAP Phase-I improvements in December 2008, GoN is upgrading this road to the



blacktopped standards and is near to completing the present upgrading works (see picture 1). During author's interaction Mr Kishor Chandra Dulal, the ex-chairman of DDC and now a social worker, recalled the travel hardships faced by road-users prior to RAP intervention and expressed his satisfaction with the present state of road and believed that the upgraded road will be the vehicle of economic development in the district as a whole. He however commented on the narrow road width and substandard road geometry in some locations of the road, constructed meeting Feeder Roads Standards. Owing to the daily traffic volume, the road will cater services to the present types of road transport vehicles running along the road corridor.

## 2. Integrated road construction and livelihood improvement programme

As in its other road construction project, RAP followed the "transport PLUS" implementation approach for the BMFR upgrading works, where poor and disadvantaged households residing within the Road Influence Area (RIA) worked as road construction gangs of 49 groups comprising 15-20 people in a group. However, unlike other RAP new road corridors, the mobilisation of Road Building group (RBG) members in construction works was not as extensive, which was inhibited due to use of heavy machines and equipment at the time of track opening prior to RAP. RAP works were therefore, mainly limited to geometry improvements mobilising local RBGs. Spot improvement works, which was carried out during RAP implementation on the other, was beyond the scope of RBG skills. These works were carried out mobilising the private construction contractor. The local people were engaged for about 4,000 labour days



of work per km road length; this is approximately 25% of the labour days required for new road construction in a similar terrain. The mandatory provision of 10% of wage contributions towards a group savings and credit scheme proved to be an effective means in improving and sustaining the economic condition of the targeted poor who relied mainly on portering work before the programme intervention. Wage income from construction helped RBGs meet the immediate household needs and enabled them to invest in different on-farm and off-farm activities supported by RAP in the form of live demonstration pilots, training and on-demand extension services. Engagement of poor and disadvantaged households in road construction works opened up new opportunity to meet daily demands vis-à-vis supported for shifting from portering-based occupation to improved and sustained livelihoods running the income generating activities within the RIA peripheral community settlements. During a recent community interaction meeting (see picture 2) held at Chyakche, Sunnam-2 in Terhathum, one of the vegetable collection and selling centre, Mr Khadka Bahadur Rana Magar commented, “portaging days for we poor people are now gone forever as we are making good income from agricultural and agro-based products through better utilisation of then fallow dry land, including the leased ones, livestock rearing and bee keeping”.

**3. Conversion of fallow land to vegetable cultivation**

The first half section of BMFR alignment mostly traverses the ridge at an altitude of 2,300m - 2,200m AMSL with poor availability of water for irrigation. Most local residents could obtain only one crop a year and thus were only able to feed their families for 2-3 months in a year.



Again, majority of land area in the vicinity was fallow and people never ventured cultivation in dry lands with higher cross slopes. People felt it’s worth portering than cultivating in these highly unproductive lands. But the situation changed as the people started vegetable cultivation during RAP implementation. After some trials, they found the land is productive for vegetable cultivation and at present majority of farmers residing in 4 VDCs are cultivating two crops in a year. Gradually, the fallow

land is converted to the cultivated land giving earning potential of 8-10 folds of that earned using traditional crop cultivation practices. The increased level of entrepreneurship at the community levels through public awareness campaign and live demonstration training has played a catalytic effect on conversion of fallow land to cultivation land in order to increase household income amongst roadside community people. The entire ridge corridor is now fully covered with vegetable along with other different cereal crops cultivation practices (see picture 3). Vegetables produced from this area are mostly exported to Tarai and neighbouring Indian towns through cooperatives and private entrepreneurs. Local community interaction also indicated a new trend of land leasing, where households with insufficient land of their own have started leasing land for vegetable cultivation to supplement their livelihoods. Although agricultural along commercial basis is in its early stages, it’s noteworthy to mention that a definite trend towards small scale commercialisation has begun to emerge and is likely to extend along the entire ridge corridor very soon.

#### 4. Production and income

Author's interaction meetings with ex-RBGs and community people along the road corridor in Sept-11 and in Nov-11 revealed that most of households have begun to grow and consume vegetables on a regular basis and sell their surplus products in local markets. On average, each household is earning NRs 40-50 thousands in a year by selling their vegetable products. These products mainly include cabbage, potatoes, cauliflower, carrot, radish and peas. The total vegetable export from this location recorded for year 2011, was 1,000 ton/yr with a minimum value of NRs 100 million from sales. Lead farmers, with significant land holding and family members available to support farming activities, are making a net profit in a range of NRs 200 – 300 thousands per annum (see box 1). Field inquiry also shows that this income is found to be increasing in subsequent years through the expansion of farmland, enhanced local expertise on cultivation practice and well-established market linkage of selling of products.

##### Box 1: Profile of one of the lead farmers

Mr Bhim Bahadur Karkee, a resident of Ratopati Basantapur VDC joined Road Building Group formed for road construction works and earned NRs 100,000 in three working seasons started in 2005. Through RAP, he also received live demonstration training on off-season vegetable farming techniques and started to apply these in his farm. As a lead farmer, he was then appointed Local Resource Person by the programme to support RBG households in his area of expertise. Being the RBG member, a group facilitator and a LRP, he successfully performed all tasks bestowed upon him by the community. At the time of RAP exit Mr Karkee was established as one of the lead farmers in his local vicinity, who had started encouraging community people to initiate vegetable farming in commercial scale and create alternative means of sustained livelihoods.

Mr Karkee continued expanding vegetable cultivation during the post RAP phase of implementation and now makes the net income of NRs 225,000 – 250,000 from vegetable production sales alone. He said, "RAP is our eye opener and if the programme had not been here all people, including myself, would have continued living a hand to mouth existence and would never have been able to rid myself of poverty trap and portaging life. In the mean time, we have been able to cover daily necessities, including costs for celebrating festivals and other social obligations from our own income and are relieved from paying 36-60% interest rates charged by moneylenders on their loan, then only mean of sustaining livelihoods". He also did not forget

#### 5. Establishment of farm to market linkage

Cooperatives formed towards the end of RAP in Dec-08 were found capable of establishing linkage between the producers and market through private entrepreneurs. In the post-RAP period, it is learnt that Commercial Agricultural Development Programme implemented with the ADB assistance provided technical support to capacitate the cooperatives. As a result, cooperatives are now better placed to manage bigger trade transactions and support their members by establishing effective linkages with the market. Hence, farmers are in a position to sell larger quantities of farm produce at minimum risk and at a better price. However, associated risks of manoeuvring on commodity price on products by *Bichauliyas* (middlemen) still persists, which is normal in the context of poor and weak government monitoring mechanism under the competitive free market based economy.

## 6. An occupational shift from portering to agricultural farming

The “Transport PLUS” approach of labour-based road construction opened up an opportunity to create alternative means of livelihoods through on-farm and off-farm activities for the roadside communities from Basantapur to Sunnam, Piple and Jirikhimti VDCs in Terhathum, and made it possible them to switch over from portering to agricultural farming. Women consulted during interaction-shared information and recalled the hardship and panics especially of childbearing mother during portaging period, which is really very painful and shocking to all. With taking long breathe and glimpse of hopes group of women during interactions commented with greater confidence and hope that recently created alternative means of on-farm and off-farm based livelihoods will help future generations from roadside communities especially women get rid of portaging life of hell forever.



From the recent field reconnaissance survey, it is revealed that the roadside community households are using a land area in a range of 0.5 - 10 ropanis for vegetable farming. Farmers with small area of land for farming have started leasing land for vegetable farming. Farmers who have less land are engaged in farm employment by large-sized land holding farmers and do not go outside local vicinities seeking employment, including portaging. However, portering activities for transporting products for sale from farmland to the road head collection centres located at strategic locations are quite common to the farmers (see picture 4).

## 7. Change in dietary habits and level of affordability

Changes in agriculture techniques and livestock management has made it possible to consume green vegetables and dairy products on a regular basis. Prior to RAP, vegetable consumption was not widespread, but now with surplus local production, vegetables are a common part of local diet. This change in dietary habit has contributed to improved nutrition levels and thus improved resistance to common diseases within the target communities.

An improved income has led to increased affordability of household needs and on other unproductive sectors, including festival celebrations, marriage ceremonies and social events. The significant ones include i) all school going age children from community households have started admitting to boarding schools for better education, ii) frequent visits to health check ups specially by child-bearing women during pregnancies and immunisation of infants to nearby health facilities, iii) improved dwelling structures with solar panel lighting system and toilet facilities, and iv) procurement of land and ornaments. Local people feel that social status has uplifted significantly with the improved economic status in the community in recent years.

**8. Conclusion and recommendations**

It is obvious that improved road connectivity provides the catalyst for local wealth creation through better management of natural resources and enhanced local level of entrepreneurships. The only point of concern is how far the productivity is picking up with the increased facilities. From the recent development interventions experiences, it is evidenced that more enterprising people inhabit the eastern cluster districts, where they have climatic and topographic advantages to initiate income-generating activities on their own and demonstrate better positions compare to the people in western cluster districts of Nepal within the specified time lapses. Ex-post road connectivity induced development trend between the two clusters also provides sufficient evidence in this regard.

In RIA of BMFR, compare to other road corridors region of influence areas, commercial farming practices by local people took place sooner after completion of all weather road facilities. This has been possible due to well-blended construction and social and economic development programmes injecting lot of money on wages followed by a group saving and lending scheme, introducing appropriate farming technologies through live demonstrations and training and establishing linkages with markets during RAP implementation.

In contrary to the stand-alone concept of conventional approach of implementing rural transport infrastructure development projects, an integrated labour-based and environmental friendly approach that helps create maximum local employment and alternative means of sustained livelihoods with transferring knowledge and technical know-how through training is found to be more beneficial and high level of public ownerships.

The approach on the other, supports minimising detrimental impacts in naturally balanced environs of fragile geologies as well. Hence, sector development partners- government ministries and departments, bilateral and multi lateral donors involved in road construction projects are strongly recommended to adopt “transport plus” labour-based and environmental friendly approach of road construction project implementation blended with income generating activities addressing poor and disadvantaged households in order to uplift economic conditions of rural people struggling for the hand to mouth existence living below the poverty line. Strict follow-up of the approach will certainly help control current practice of haphazard building of non-engineered bulldozed roads in rural hills, which hardly come into operation and control rampant corruption and save the naturally fragile environment at the same time.



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<sup>i</sup> Deputy Programme Manager, Rural Access Programme