

Executive Summary

Improving rural access is an important objective of the Royal Government of Bhutan (RGoB). The RGoB is implementing Rural Access Project (RAP) in selected Dzongkhags with credit from the International Development Agency (IDA) and Technical Assistance from Netherlands Development Organisation (SNV). The Department of Roads plans to take up Jangchucholing – Tashidingkha Road in Wangduephodrang Dzongkhag (14.30 kms) and Drujeygang-Balung Road in Dagana Dzongkhag (42.50 kms) under a follow up/next credit of the IDA as RAP Phase II.

A socio economic assessment for these roads has been carried out with the objective of making explicit, through participatory information collection and dissemination, key social factors that affect the development impacts and results of the project. The main objectives of the socio-economic assessment are: identification and analysis of main stakeholders; collection of baseline information on socio-economic characteristics; exploring the possibility of voluntary land contributions, and assessing the scale and nature of potential land acquisition; and analysing the institutional capacity and risks in successful and timely implementation of the project.

This study covers 2 dzongkhags, 4 gewogs, 36 villages, and 241 households based on the proposed road alignment. A semi-structured questionnaire was used to carry out individual household interviews taking a sample size of 34%. A mix of qualitative and quantitative data collection methods was used. For the stakeholder consultations and institutional analyses, focus group discussions were held, while the socio-economic baseline survey adopted a semi-structured questionnaire to carry out individual and group household interviews. This assessment made use of both secondary and primary data.

The project area includes the Wangduephodrang and Dagana Dzongkhags in the west central region. The 14.3 kms Jangchucholing - Tashidingkha Road is expected to benefit 178 households of 12 villages under Dangchu gewog of Wangduephodrang Dzongkhag. The road alignment taking off at Jangchucholing from the Thimphu-Trashigang highway passes through the main villages of Ridang, Yusagang, and terminates at Tashidingkha. The 42.50 kms Drujeygang - Balung road in Dagana Dzongkhag starts from Drujeygang and passes through the main villages of Thangna, Budeychu, Baibithang, Petakha, Zinchilla, Tshangkha, Manidangra, Bana and ends in Pheunsumgang at an altitude of 1360 m under Lajab gewog. This road will benefit 100 households of Drujeygang gewog, 278 households of Tsangkha gewog, and 124 households of Lajab gewog.

Wangduephodrang is the second largest dzongkhag in the country with a total area of about 4,038 km² and elevation ranging from 800 to 5800 meters above sea level. The Dzongkhag consists of fifteen gewogs. There are 3,067 rural households, making up an estimated total population of 22,800. The higher altitude gewogs of Phobjikha, Gangtey, Sephu and Dangchu mainly depend on livestock rearing. The Phobjikha Gewog is known for winter nesting place of the black-necked cranes and potato cultivation. The Jigme Dorji National Park extends into the northern part while a major portion of the dzongkhag falls under the Jigme Singye National Park.

Dagana Dzongkhag lies in the west central region with a total area of approximately 1389 km² and the elevation ranging from 600m to over 3800m above sea level. The Dzongkhag consists of 11 gewogs with 2575 households and a population of 21,363. People are comprised of Ngalong, Sharchokpa, Khengpa and Lhotsapmpa. Settlements are fairly dispersed and remote.

The main stakeholders of the project include: the beneficiary community, including the rich, poor, and the vulnerable groups. The Gewog level stakeholders comprised the Gewog administration, rural and social development sectors and the GYT. At the Dzongkhag level the stakeholders

comprised the district administration consisting of the rural and social development sectors (Health, Education, RNR, and Engineering) and the *DYT*. The main expectations of the stakeholders out of the road project include: increased access to services like health, education, enhanced transportation and better access to marketing, increased business and trade, access to improved technologies, increased production of cash crops, improved communication, and improved working condition for women.

The administrative set up of a Gewog comprised the *Gup* (elected by the people) with administrative authority. *Maang-aaps* assist the *Gup* and act in his absence. A *Tshogpa* represented a village. *Chupens* or *Pirpens* were the messengers. All were answerable to the *Gup*. These together constituted the gewog government. The *GYT Chathrim 2002* delineates specific roles and responsibilities to all functionaries involved in development administration and management in the Gewog.

The district government headed by the Dzongda comprised mainly the service sectors of Planning, Education, Health, RNR, Immigration and Census, Land record, Power, Engineering Cell each headed by a District Level Officer and supported by field level assistants. An elected chairman of the *DYT* presides over the *DYT* meetings. *DYT* involves the people in political, social and economic decisions making thus increasing their capacities to set their collective priorities and to initiate means for their fulfillment. The *DYT Chathrim 2002* delineates specific roles and responsibilities to all functionaries involved in development administration and management in the Dzongkhag.

An Executive Engineer heads the Field Divisions, of the Department of Roads at Sarpang and Lobeyasa respectively for Dagana and Wangduephodrang Dzongkhags. The field division undertakes regular maintenance/restoration needs for the different roads with priority accorded to the National Highways.

The survey covered some 241 households with a total population of 1,822 in four gewogs of Dagana and Wangdue dzongkhags. Fifty two percent of the population consisted of females. On an average there were 8.5 members per household.

Forty seven percent of the sample population consisted of farmers, while 24% were students. Seventy six percent of the population resides in villages. The survey shows that sixty-nine percent of the population was illiterate.

The land use type is predominantly dry land followed by wetland and *tseri*. The average land holding is 5.18 acres in Dagana, while in Dangchu the size of land holding is 2.91 acres. In Dagana, the main cereals grown include maize, rice, millet, wheat and buckwheat. Maize is the main crop grown in terms of acreage and production in all the three gewogs followed by rice and minor cereals. Potato and vegetables like beans, peas, and greens are grown in small scale for home consumption. Mandarin orange is the main cash crop with an area of about 82 acres in Dagana dzongkhag. There is a notable potential for cash crops like vegetables, mushroom, mandarin orange. Main constraint reported is access to market.

In Dangchu gewog, Wangdue, the main cereals grown include wheat, buckwheat, barley, rice, and maize. The area under rice and maize is low as compared to minor cereals. Potato and vegetables like beans, peas, and greens are grown in small scale for home consumption. None of the sample households own orchard land in Dangchu. The main livestock owned by the sample households include cattle 1818, horses and mules 212, followed by poultry and pigs. Cattle form important component of the farming providing milk and milk products, FYM, and drought. Horses

and mules are mainly used for transporting goods. Some improved breeds on cattle, pigs and poultry have been introduced. In Dagana, the farmers used 330 kgs of fertilizers, 205 kgs of improved seeds, and 35 kgs of pesticides annually, while none of the sample households used fertilizers and pesticides in Dangchu gewog of Wangduephodrang.

In Dagana, there is an RNR Centre at Drujeygang and it takes about 1-2 hrs to reach the centre from the surrounding villages. Tshangkha has an RNR Centre, while there is Agriculture and Livestock centre at Lajab. Average walking distance to these centres is about 2- 3 hours walk. The nearest schools for the sample households are located at Drujeygang, Tshangkhatar, Phuensumgang under the Drujeygang, Tshangkha, and Lajab gewogs respectively. It takes about 1-3 hrs from different villages to reach the schools. There is a BHU in each gewog of Dagana located at Drujeygang, Tshangkhatar, and Phuensumgang. It takes about 2-3 hours walk from the villages. The nearest hospital is at Damphu under Tsirang dzongkhag, which is one-day walk from the gewog. Majority of the households reported access to emergency services as “poor”. The health status of the women and children was reported to be poor.

In Dangchu, Wangdue there is an RNR Centre at Tangrey. From the surrounding villages it takes about 3 to 3.5 hrs to reach the centre on foot. It takes about 3 hrs from Tashidingkha, to reach the nearest primary school at Tangrey, and about 1.5 hrs from Rida goenpa to reach the lower secondary school located at Nobding. There is a BHU at Tangrey which is 1.5 hrs far from Tashidingkha, and also at Bajo which is about 3.5 hours walk from Rida Goenpa. The nearest hospital is at Wangdue which is 3.5 hrs far from Rida Goenpa, and 5.2 hrs walk from Tashidingkha. Sixty percent of the sample households reported access to emergency services as “poor”. Health status of women and children was also reported as “poor”.

In Dagana, 32% of the households had availed loan from BDFC, while in Dangchu, Wangdue only 4% of the households' availed loan. Most households of the project area reported existence of off farm work opportunities like weaving, carpentry, house construction etc. The existing wage rates range from Nu. 100 to Nu.150 per day.

Major sources of income for the sample households include: sale of agriculture and livestock products, sale of animals, working as casual labour and hiring out of horses/mules. The annual average income of sample households was Nu. 27,000 in Drujeygang, Nu. 51,000 in Lajab, Nu. 45,551 in Tshangkha, and Nu. 38,194 in Dangchu, Wangduephodrang.

The households mainly incurred expenditures on purchase of essential food items, children education, purchase of farm inputs (seeds, fertilizers, chemicals etc), purchase of clothes, and contribution for *Rimdo*. The average annual household expenditure in the three gewogs of Dagana ranged from Nu. 14,669 to Nu 22,188. In Dangchu gewog of Wangdue, the average annual household expenditure was Nu. 15,616.

In Dagana, mandarin orange, vegetables, and livestock products are the main commodities sold by the households for cash income. Small quantities of other commodities sold include maize, rice, mustard, potato, and vegetables. In Dangchu gewog, Wangdue, farmers sell vegetables, potato, chili seedlings, and livestock products including cheese and butter. Some farmers from Dangchu also collect *Cordeyceps* (medicinal herb) from the high altitude areas for sale. In all the four gewogs of Dagana and Wangdue, the main items purchased by farmers are rice, cooking oil, sugar, salt and other basic necessities.

In Dagana, mandarin orange and vegetables are the main commodities transported, while in Dangchu, Wangdue the main commodities transported are potato and vegetables. Manual transport is the most common means of transport. For larger quantities and heavier loads,

generally horses and mules are used. Transportation of bulky commodities like oranges, potato, and vegetables is the main problem faced by the households. Transportation costs are high and it takes long time.

In the three gewogs of Dagana 45% of the sample households own simple huts with poor condition. Fifty five percent of the houses have access to potable drinking water supply. Most of the farmers reported that their priority need is housing. Only 6 households in Dangchu gewog of Wangduephodrang own double storied houses with CGI roofing. Nine households own single storied mud houses. Poor households own smaller huts constructed from stone and mud. Nine of the houses have electricity. Thirty three percent of the households reported having access to potable drinking water.

The existing Government rate for wet land is Nu 35000 per acre and for dry land is Nu 20000 per acre, while the existing market rate for wetland ranges from 75000 to 150,000 per acre.

In Dagana dzongkhag, majority of the sample households reported lack of proper housing, lack of food, and lack of cash income, and lack of access as major constraints. In Dangchu, Wangdue, the three main problems reported were: lack of road access, lack of electricity, damage to crops by wild animals.