

6. INFRASTRUCTURE AND SERVICES IN LAMJUNG DISTRICT

6.1 Road Infrastructure in Lamjung District

In Lamjung, the development of infrastructure; of roads, power supply, and telecommunications in particular; had achieved remarkable impetus by the beginning of 1996. Up to now, there is no power supply in Besisahar, the district headquarters, but an implementation programme has started and will soon reach the *bazaar* and many other rural areas along the Marsyangdi River. The rehabilitation and upgrading of the Dumre - Besisahar district road has recently begun and will convert the current fair-weather road to an all-weather road within the next two years. Since 1995, an extension of this road has been jeepable up to Khudi *Bazaar*; and road construction up to Bhulbhule on the Marsyangdi is taking place. In the last couple of years, the access road which links Sundarbazaar to the district road was extended to the west along the valley of the Paundi *Khola* up to Satrasaya. The alignment of another access road, which was recently completed, begins at Kalimati in Tanahun District in the Marsyangdi Valley, winds up the slope to some settlements, and finally goes down to the river bed of the Naudi *Khola* (district boundary) and again up to Kunchha *Bazaar* on a ridge top linking Tanahun and Lamjung districts. Still, transportation to this small *bazaar* does not take place on this road; tractors reach there through another access road along the valley of the Risti *Khola*. That access road is linked to an earthen road which was established already some years ago. This earthen road follows the Madi *Khola* starting from the Prithvi Highway at Damauli in Tanahun District and is presently ending in Bhorletar and Ram *Bazaar* at the confluence of the Madi and Midam rivers.

6.2 Drinking Water Supply

The improvement of drinking water supply and sanitation is the major activity of several development organisations and NGOs working in Lamjung. Poor drinking water facilities are seen as a critical factor for rural households. Over the last few decades, many drinking water schemes have been implemented in Lamjung. The field survey indicated that still, today, about 30 per cent of the households lack access to drinking water schemes. These households catch the water from ponds, wells, or rivers. The settlement survey provides information on the access to drinking water of about 81 per cent of the population. For the rest of the population, no information was provided by the surveyor, but it is assumed that these people have no access to piped drinking water; e.g., the total number of households in Bahundanda VDC totals 392; 153 of these households have access to a piped drinking water system (DWS), and, for the rest, no information is available. Asked about the sources of drinking water in the settlement, 77 per cent of the settlements have DWS; ponds are used by 41.7 per cent, rivers by 10.8 per cent, and wells by 0.5 per cent. Also, water from ponds and rivers was named as a drinking water source by 463 settlements and 120 settlements respectively; in many cases this is an additional supply to DWS. In 144 settlements, ponds are the only drinking water source. In 37 settlements, rivers were mentioned as the single drinking water source and, in 25 cases, both rivers and ponds were named. The remaining 59 settlements also have access to piped DWS.

The database can be used to identify gaps in the piped drinking water supply system. For example, in Taghring VDC, 10 settlements (about 50 per cent of the total) use river water as the only drinking water source, and the other VDCs where more than three settlements rely on river water are Bansar, Bhonje, and Gaunsahar. In Dhodeni and Karapu VDCs, three settlements use ponds and rivers for their drinking water supplies (Annex 35).

6.3 Services and *Bazaar* Areas

Information on the services that were covered in the settlement survey refers, in general, to the availability and location of a particular service and not to qualitative aspects. Still, this information

could be added in future if it becomes available. There are several discrepancies between the settlement survey and other sources which refer to services in Lamjung. To update the databases on health facilities and agricultural services, information from two sources was taken into consideration (HMG Nepal 1995; Devkota 1995). Table 43 provides an overview of the number of services that are available and the number of VDCs concerned (Map 37).

Table 43: Number of Services in Lamjung

Type of Service	Number of Services	No. of VDCs
Health		
- hospital	1	1
- health post	10	10
- sub-health post	34	34
- ayurvedic shop	6	6
Post office	44	40
Police post	11	10
Bank	8	6
<i>Bazaar</i>	81	42
- cloth shop	135	31
- grocery shop	379	42
- teashop	418	43
- lodge	53	13
- hotel	120	22
Agricultural service	12	12
Livestock service	13	13
Agricultural Inputs' Corporation	1	1
Cooperative Society	9	8
AIC dealer	12	10
Agro-veterinary concerns	5	4

6.3.1 Health Posts

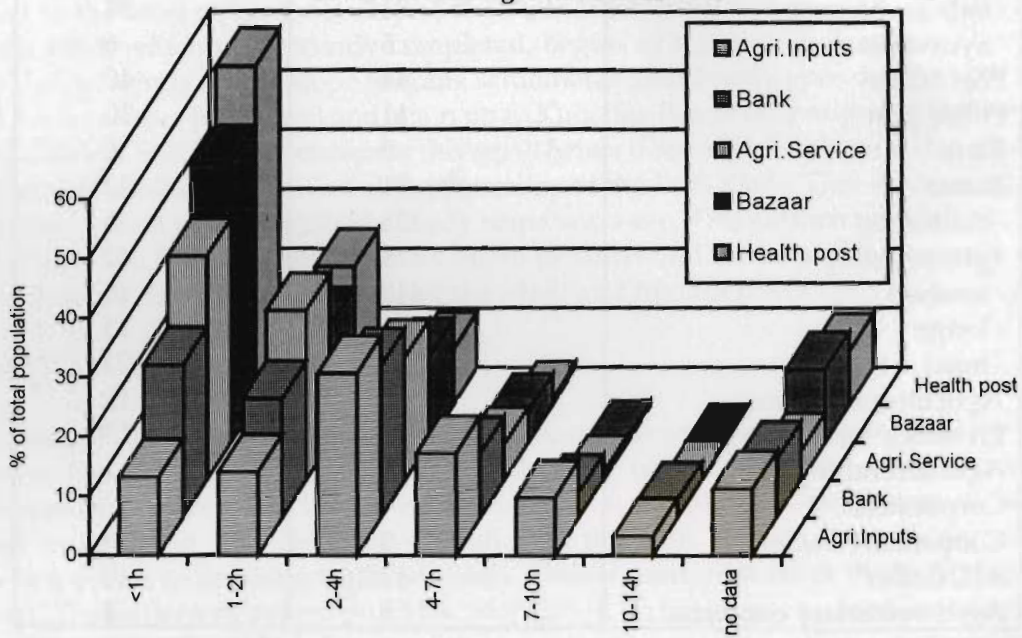
According to the 1991 Census, ten health posts and ten sub-health posts had been established in Lamjung District. By the end of 1995, 45 VDCs were covered by health services, i.e., one district hospital in Besisahar, 10 health posts, and 34 sub-health posts (HMG Nepal 1995). In addition to Besisahar, five VDCs had Ayurvedic health facilities. Thus, ten VDCs were lacking health services. In the first place, this corresponds to the information collected during the settlement survey, although, since data collection, an additional 14 sub-health posts have been established in the district. Only in Gilung VDC was a discrepancy noticed between the settlement survey, which located some health facilities there, and the database at the Department of Health which does not include this information.

According to people's perceptions, about 57 per cent of the total population has access to health posts or sub-health posts within one hours' walking distance; this does not consider the 14 newly-established sub-health posts. About 10 per cent of the population has to walk more than two (and some villagers have to walk up to seven) hours to reach health facilities, e.g., from Dhare (Bahundanda VDC) to Ghermu sub-health post; from Sano Mroche (Bajhaket VDC) to Besisahar; and from Siumang (Khudi VDC) to Khudi *Bazaar*. The average walking time from all settlements to a particular health post is about 1.2 hours (estimated variance is 1.1). The people of Chyamche and Nasakche in Taghring VDC seek health services in Taal, Manang District, which takes about one hour's walk (Figure 6) (Annex 36).

6.3.2 Post Offices

According to the settlement survey, 43 post offices have been established in Lamjung. Access is comparable to health facilities; more than 58 per cent of the population has access to a postal service within one hour's walk and the maximum distance is seven hours, i.e, Sano Mroche (Bhalayakharka VDC), where people walk to Besibhachok in the same VDC; Siumang (Khudi VDC), walking to Khudi Bazaar; and Nasakche (Taghring VDC), walking to Bahundanda. The average walking time from all settlements is about 1.2 hours, with an estimated variance of 1.2.

Figure 6: Population and Accessibility to Services in Lamjung District in 1995: Walking Time to Services



Source: Settlement Survey 1995

6.3.3 Bazaar Areas

Bazaar areas, in general, were defined as having at least two grocery shops, which should not consist only of teastalls. The settlement survey identified 81 bazaar areas in Lamjung, and they are located in 42 VDCs. There are several other places with only one shop or with teashops. In total, 349 grocery shops and 135 cloth shops were counted. Besisahar, Sundarbazaar, and Bhoteodar have the biggest markets. There are plenty of teashops and local hotels in the district, but in only 43 VDCs. Fifty-three tourist lodges were counted; 15 of these are located along the old route, around Annapurna, in Nalma, Baglungpani, and Isaneshwor, and they are probably not much frequented anymore.

The access to bazaar(s) as defined by villagers includes the bazaar areas of 31 VDCs. About 47 per cent of the population will reach a bazaar within one hour's walk. The people of Bhonje, Ghermu; and Taghring VDCs need more than eight hours to reach Besisahar. In general, villagers within one VDC seem to prefer the same bazaar areas, but there are some exceptions, e.g., in Bhonje, Bhulbhule, Chiti, Duradanda, Ghanpokhara, and Jita where people go to three different bazaar(s) for shopping. In eleven VDCs people reported going outside to shop, although there are small bazaar(s) in the neighbourhood.

The average walking time from all settlements is about 1.6 hours; the estimated variance is 2.4.

6.3.4 *Agricultural Service Infrastructure*

Agricultural Service Infrastructure covers the District Agricultural Development Office, the Agricultural Development Bank (ADB/N), the Agricultural Inputs' Corporation (AIC), and the Cooperative Societies (Devkota 1995). In the settlement survey, questions were asked about the location of the agricultural service centres, AIC and AIC dealers, and agro-veterinary concerns.

Besides the District Agricultural Development Office in Besisahar, four agricultural service centres have been established in Lamjung, i.e., Bhorletar, Khudi, Nauthar, and Sundarbazaar, and sub-service centres have been established in Bichaur, Chakratirtha, Chandreshwor (Chihanpata), Chiti (Tilaha), Gaunda, Maling, and Tandrung/Taxar (Sotipasal). In addition, one veterinary service unit is located in Bhone (Devkota 1995). This information is well reflected in the field survey and stored in the settlement database.

Based on the figures given by the villagers, about 38 per cent of the population have access to agricultural services within one hour's walk and about eight per cent need five hours and longer. Villagers from Dudhpokhari need up to 13 hours to reach the sub-service centre in Chakratirtha, passing the centre in Bichaur, which is only frequented by the villagers of Bichaur VDC; two settlements in Dudhpokhari; and six settlements in Ilampokhari. One settlement in Ilampokhari seeks agricultural services in Hanspur VDC in Gorkha District. The average walking time from all settlements to agricultural service centres is about two hours, with an estimated variance of 2.7.

The Agricultural Inputs' Corporation (AIC) has a branch office in Besisahar and sells agricultural inputs, i.e., fertilizers, cereal seeds, and agricultural chemicals, through cooperative societies and private dealers (Devkota 1995). There are ten cooperative societies in the district, i.e., Besisahar, Bhorletar (2), Chakratirtha, Isaneshwor, Khudi, Sindure, Sundarbazaar, Tarkughat, and Tandrung/Taxar (Sotipasal); twelve private dealers who sell agricultural inputs in Baglungpani, Besisahar, Bhalayakharka, Bharte, Bhorletar, Jita, Kunchha (3), Parewadanda, Rangha, and Udipur; and five agro-veterinary concerns in Besisahar (2), Bhorletar, Bhotedar, and Sundarbazaar dealing in vegetable seeds, agro-chemicals, agricultural tools, and veterinary drugs. In the settlement survey, a distinction was made between AIC, AIC dealers, and private agro-veterinary concerns. Thus, there is a discrepancy in some locations, e.g., the VDCs of Bhalayakharka, Parewadanda, Rangha, and Udipur are not in the list of suppliers.

According to the response of the villagers, access to agricultural inputs is a problem in terms of walking time. Access to these services is worse than to any other service, according to the survey. Only about 13 per cent of the population has access within one hour. Although twelve VDCs were mentioned as locations for agricultural supplies, villagers seemed to have a clear preference for travelling to Besisahar for these products. The district headquarters was referred to by 587 settlements. Chakratirtha VDC provides services to 129 settlements in the neighbourhood, although all settlements in Chakratirtha prefer to go to Besisahar which takes ten hours' walk. The same was the case for Khudi, Sundarbazaar, and Nauthar. The average walking time from all settlements to agricultural inputs is about 3.6 hours, with an estimated variance of 5.8.

6.3.5 *Banks*

According to the settlement survey, banks are located in Besisahar (3), Bhorletar, Chakratirtha, Chandreshwor, Chiti, and Sundarbazaar. In Besisahar, Bhorletar, and Chakratirtha, there are branches of the Agricultural Development Bank of Nepal (ADB/N). In Dhodeni, Isaneshwor, Khudi, Rangha,

and Sundarbazaar, the Small Farmers' Development Programme (SFDP) has offices (Devkota 1995). Some of the banks mentioned may belong either to the ADB/N or SFDP.

Although banks are located in only six VDCs, the access to banks seems to be far better than to agricultural inputs. About 26 per cent of the population have access within one hour's walk. Still, villagers from remote places in Dudhpokhari claim to walk 17 hours to reach the bank in Chiti. There is no information for 10 per cent of the settlements, 363 settlements give preference to Besisahar for financial affairs; other banks which are frequented most often are in Chiti (151), Sundarbazaar (146), Bhorletar (113), and Chandreshwor (102). Some settlements in Bichaur and all settlements of Ilampokhari conduct their bank business in Hanspur VDC in Gorkha. The average walking time from all settlements is approximately three hours, with an estimated variance of 7.4.

6.4 Nurseries

Several questions in the settlement survey are related to nurseries, i.e., type, ownership, and year of establishment. The information was cross-checked with the feasibility study for private agro-enterprises and updated accordingly (Devkota 1995). This feasibility study lists 14 fruit nurseries in nine VDCs. Some of the nursery owners have been trained through a programme of the District Agricultural Development Office and provide, in particular, citrus saplings for horticultural development in the district.

According to the settlement survey many more nurseries are maintained in the district. Again, no information was collected on, e.g., quality, production, or size of facility. In total, 63 additional nurseries were counted; 48 nurseries being privately owned, six under government management, and four belonging to the community. The information on government nurseries, in particular, may be outdated, and the location may have already been abandoned. Also, there might be errors in the information from the VDCs of Dhamilikuwa, Isaneshwor, and Mohoriyakot where twelve, six, and thirteen nurseries respectively have been recorded. To improve the database more field verification and updating are necessary.

Twenty-seven forest nurseries were recorded in 14 VDCs. Some of them had been established in the early 1980s through the Community Forestry Development Programme and may have been given up by now. Recently, forest nurseries have been established in Bhujung and Simpani with the support of ACAP programmes. The information should be updated with the help of the District Forest Office in Besisahar.

According to the settlement survey, vegetable nurseries have been established in eight VDCs. There seem to be centres for vegetable development in Dhamilikuwa and Tarkughat where nine and seven nurseries respectively were found. In Dhamilikuwa, this development started only in 1993.