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Prachanda P. Pradhan

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**LOCAL INSTITUTIONS AND PEOPLE'S PARTICIPATION
IN RURAL PUBLIC WORKS IN NEPAL**

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and Administration**

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Prachanda P. Pradhan

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CHAPTER I

RURAL LOCAL INSTITUTIONS IN PERSPECTIVE

Among several kinds of people's participation in rural development, this paper will focus on the dynamics of people's participation in public works activities, like constructing feeder roads and suspended bridges and mobilizing local resources for public works activities generally within villages. The study will deal first with the growth of rural local institutions in Nepal and with their role and scope in providing services to communities. We begin with a summary overview, elaborated later in this chapter.

Nepal's modern history begins in 1769 when Nepal emerged as a single country under Prithivi Narayan Saha. The Kingdom of Gorkha, a small state in western Nepal had expanded through military expeditions to the east and west of Gorkha. As ruler, Prithivi Narayan Saha conquered Kathmandu valley in 1769 and established Kathmandu as the capital of Nepal. Thereafter, he ruled a unified Nepal from Kathmandu instead of from Gorkha, the ancestral home of Saha kings. In the course of Gorkha's territorial expansion, dozens of petty principalities were brought under the sway of the Saha kings. Unified Nepal was described by Prithivi Narayan Saha as a "garden of different flowers," denoting its composition from many ethnic groups with different cultural activities. Moreover, economic conditions varied markedly from one geographical region to another.

The administration of unified Nepal was an entirely new challenge to the Gorkha rulers. The trained manpower required for this new venture was

just not available. Physical control of expanded territory continued through army officers deputed by the Saha kings. Each army officer assigned to an area would look after the maintenance of law and order and would maintain a small army as well. The expenses for the army would be raised from the area where they were stationed. Neither economic integration nor administration integration was a priority; therefore different regions followed their own way of administering their area. A legal code applicable to Nepal as a whole came into existence only three quarters of a century after the unification of Nepal in 1769. The effects of this original pattern of loose integration have continued for almost two centuries.

1. A weak relationship with the center emerged from letting the old rulers of an area continue governing as customs and traditions of the area were not interfered with by the central government. These old rulers were required only to demonstrate loyalty to the new rulers of Nepal. The army officers deputed to the newly conquered area maintained armies on behalf of the government. The cost for maintaining them was acquired from the local people. Land was granted to the army officers in lieu of salary. The local people would then cultivate the land and support the army and officers.
2. The role of central government was confined to extracting resources from local people in the form of land revenue and other taxes. But there were not corresponding supplies of resources to do development work. Local development of physical infrastructure had to be undertaken by the local people themselves.
3. There was no direct contact by the central government with the local people except through intermediaries like zamindars, patwaris and mukhyas who worked on a commission basis to raise revenue for the central government. Local rulers were made to act on behalf of the central government but they were not really representatives of the local people. Ties with local rulers were often strengthened by the authorities of the center through matrimonial relations. The whole strategy of establishing relations with the local people was more through bonds of ascribed loyalty than through mutual communication between the local people and the central government.
4. With such a historical legacy of weak ties between the center and local institutions over a long period of time, attempts to establish rural local statutory institutions even after 1951 resulted often in dysfunctional relationships.

In 1951, the political system of Nepal was changed and a democratic system of government was promised. Attempts were made by the centralized His Majesty's Government (HMG) to reach directly down to the villagers and ensure their participation in development activities in Nepal. A survey will be presented below on the efforts of the government of Nepal aiming at establishing statutory local institutions over a period of time. The role of people's participation in this will be analyzed through looking at the local people's contribution in public works activities. Three cases are selected for analyzing rural public works, organization of public works activities within local communities, choice of technology at the village level and its relation to the size of public works, and the choices shaping investment alternatives at the central government.

People's Participation in Public Works Activities

People's participation is considered here as community participation in creating "public goods" or services by mobilizing different resources from within the community. Thus, the study focuses on participation not in terms of "political participation" through voting or being member of a local organization. Rather, an effort is made with this "public goods approach" to encompass both community participation as well as organizational participation. This latter approach usually covers only a small group of "elites" in decision-making positions and their distributing public goods under government control to urban groups or to the most vocal groups in the "periphery." The farther a rural community is from the center, the less would be its opportunity for receiving "public goods" or other services distributed by central institutions.

Several studies indicate that creation of "public goods" in rural communities is possible through community participation on self-reliant

basis. Generally, if the government-supported infrastructure is poor and government investment is limited, the participation of people in creating "public goods" increases. However, it appears that the economic level of the community should be comparatively better for this to be effective. Where there is utter poverty and lack of cohesive social fabric supporting the collective well-being of the community, participation of the community would be restrained and the possibility of self-reliant, community-based participation would not have appeal to the people.¹

In Nepal, abundant examples can be found where people have engaged in community-based participation for the creation of "public goods" or services. In earlier days, the effort of creating infrastructure at the village level was influenced to a great extent by the religious value attached to earning "merit" after death. Construction, repair and maintenance of public facilities was promoted by the religious beliefs of the people. Creation of such infrastructure was, however, limited in those days. After 1951, the volume of such activities enlarged and these activities were undertaken as part of a government program of extending "public goods" to the greater number of people in the rural areas. Many of these villagers gained satisfaction from building infrastructures like school buildings, trails, feeder roads,

¹In the Ten Mile Inn Village of China, the people did not have a basis of cooperation because of their utter poverty in the 1930s. Deliberate external intervention in the distribution of village resources became the essential step whereby the poor landless laborers and poor peasants could be brought together to form the basis for further cooperation and participation activities in the village. See Isabel and David Crook, Ten Mile Inn: Mass Movement in a Chinese Village (New York: Pantheon Books, 1979), p. 9. Similar experiences were reported with the people in resettlement areas of Nepal. These people depended more on the government's help than on improving their situation by themselves. They did not have anything to share, they were destitute people so they could not develop an attitude of community interdependence. See Vidya Bir Singh Kansakar, Effectiveness of Planned Resettlement Programs in Nepal, (Kathmandu: Centre for Economic Development and Administration, 1979).

suspended bridges, etc. These activities were undertaken on the initiative of the local people themselves. However, there has not been any study in Nepal of the mechanisms and implications of such activities of the rural population. Mobilization of local initiatives along with local resources could be an enormous resource for the government if the government can capitalize on the opportunity and channel them into expanding public goods and services.

Historical Perspectives on Local Institutions in Nepal, 1769-1950

Nepal became a politically consolidated geographical unit only after 1769 when Prithivi Narayan Saha brought small principalities and petty states under his control. Before this geo-political unification, Nepal was divided into dozens of states governed by local rulers. The territory of Nepal was not finally settled until 1858 when the Western Tarai (plains) was ceded to Nepal by the British government in recognition of help rendered by Jung Bahadur Rana, the first Rana Prime Minister, in suppressing the Sepoy Mutiny in India. From 1846, the Saha kings were forced into obscurity by the powerful Rana family. A Prime Ministership based on family succession emerged and continued until 1951 when this dynasty was overthrown, the authority of the Saha King (Tribhuvan) was restored, and a democratic system of government was promised for Nepal.

The first period of Saha dynasty aimed at the expansion of the territory under their political control. However, as noted above, few efforts were made to integrate the people of this expanded territory within the socio-cultural-economic framework of a unified Nepal. The geographical terrain of the country forced the rulers to let affairs of each community be carried out by the local communities themselves. The Saha and Rana rulers did not feel this a threat so long as there was no direct challenge

to the political authority of the rulers. The principalities agreed to accept the political authorities and in return, they were authorized to run the local administration on their own. When the rulers had difficulty winning over people such as in the Rai and Limbu areas, the rulers negotiated with the community letting them govern themselves by their own culture and political system so long as the land would be under the political control of the ruler of Nepal. Hence, local institutions based on ethnic communities emerged with a weak relationship with the central government. The relationship with the central government was largely formulated in terms of paying revenue or tribute to it.²

The weak relationship with the local institutions resulted in a system of community self-management. These communities were generally composed of a single ethnic group. The settlement pattern of Nepal was a conglomerate with one kind of ethnic group concentrated in one geographical area and another ethnic group in another area. The boundaries of ethnic groups are delineated by the mountains, valleys and ridges. Even these days, the concentration of different ethnic groups can be observed in the settlement pattern of Nepal.

The major ethnic groups of Nepal are the Newars, Magar, Tamangs, Sherpas, Thakalis, Gurung, Rais and Limbus. The community-based social organization developed their own structures of authority, devised social services, built infrastructure, and enforced social regulations. The

²Ludwig F. Stiller, S. J., The Rise of the House of Gorkha, (New Delhi: Manjusri Publishing House, 1973), pp. 251-276. Lionel Caplan, "Some Political Consequences of State Land Policy in Eastern Nepal," Man, Vol. 2, No.1 (March, 1967), p. 108. Christopher von Furer Haimendorf, The Sherpas of Nepal (Berkeley: University of California Press, 1969), p. 100.

sharing of labor by the community was regulated, and self-help was supported, and self-reliant economic systems came into existence. Practices like Parma (sharing of labor in agriculture or in individual house construction or in village development activities), Mankajya (collective activities in helping the community), Digur (a community-based banking system) and Rodi (culturally-based communal work on farms) were prominent in the structure of the community life of Nepal. These are examples, not an exhaustive list of the kinds of communal work found in Nepal.³

Limited Functions of the Central Government

The role of the central government traditionally centered around raising revenue and maintaining law and order. Most of the agencies at the local level were on a contract basis like land revenue offices. This practice led to the emergence of intermediaries between the central government and the local people. The village chiefs would act on behalf of the central government in addition to the raising of land revenue and depositing this in the district revenue office.⁴ In return for the service thus rendered,

³Almost all ethnic groups have community-based social control mechanisms to be regulated either by the hereditary village head or by the elected village head of the community. These village heads invariably became agents of the central government. See Dor Bahadur Bista, People of Nepal (Kathmandu: Department of Publicity, 1967). A detailed analysis of the working of ethnic-based village councils to regulate the socio-economic and cultural life of Sherpas is given by Haimendorf, op. cit., pp. 100-125.

⁴Different titles are associated with different ethnic groups: Rai with Rai ethnic group, Subba with Limbus, Talugdar and Mijar with Tamang, Bhusal with Magar, Amali and Mukhiya with Thakalis, Mehato with Tarus, Gova and Pambu with Sherpas. Village chiefs were either hereditary or were elected by the community. They have had a wide range of authority ranging from settling disputes, regulating the social order and collecting revenue for the central government. See Dor Bahadur Bista, People of Nepal, op. cit.

they would get some commission according to the amount of revenue raised. They had a quota of revenue to raise and if they failed to fulfill the quota they had to pay the difference on their own. On the other hand, any surplus they could keep for themselves. These intermediaries could be very harsh and raised revenue by using all possible means. They served as extensions of the district administration and kept records of the local people, of activities in their villages and reported regularly to the District administration. However, the collection of revenue remained their foremost responsibility.

Control over District Administration

Separate administrative structures were devised to administer the hill districts, the Tarai (plains) districts and Kathmandu valley in Nepal. Hill districts were governed by military personnel because most of the recruits for the army came from the hill districts. Tarai districts did not generally have military personnel to administer them. The chief administrators of districts, who were called Bada Hakims, could have different ranks. At one time a General of the Army might administer a district; at another time, in his place, a Captain might be the district administrator.

The influence of a Bada Hakim would generally depend on his relation with the Prime Minister in Kathmandu and on his role in the Rana family hierarchy. He would be in charge of the district revenue, district accounting and auditing and he would control the district treasury. He would recruit personnel for district administration. He would take care of public works activities, the postal system, health, forest, protection of caste, and religion through the respective district level offices.

Tarai district administration had elaborate district offices, and revenue offices were better organized than in the hill districts. Since

the Tarai was the main source of revenue to the Central government, these elaborate district offices had to be created in order to maximize the extraction of resources from the Tarai districts. Resources allocated for welfare activities at the district level were almost unknown. Resources allocated to the districts from the center were meant only for salary payments to employees in the district-level offices. The Rana administration adopted a strategy of maintaining only a skeleton administration and of extracting resources through intermediaries. In the case of Kathmandu Valley, however, the administration was looked after by the central administration.⁵

Parallel to the district administration, in a number of old principalities, hereditary rulers (46 in number) were given autonomy to govern in their districts. By the prescriptive authority vested upon them, they would take care of revenue collection and would decide local judicial cases. These principalities were of three types according to the nature of revenue relation with the central administration. Principalities based on contract would have to raise revenue on behalf of the central government. If they failed to do so the ruler of the principalities would be changed. Another type of principality had to pay an annual tribute to the center, and another type of principality enjoyed total exemption from paying revenue to the center. The revenue collected in the latter would be the property of the local ruler. On many occasions the relationships of these principalities, with the center were reinforced through matrimonial relations with the family in power in Kathmandu. This system of rulership of principalities was abolished after 1951, except for a few principalities

⁵ H. N. Agrawal, The Administrative System in Nepal (New Delhi: Vikas Publishing House, 1976), pp. 74-105.

where political considerations or matrimonial relations prompted preservation or these rulers' positions. Even so, these days, they get only a title and a certain amount of allowance paid them by the state. They no longer rule in their own right.

Experiments in Local Administration

Circumscribed and guarded experiments have been made in the past to establish local institutions in Nepal. Most efforts were centred around Kathmandu Valley, the capital of Nepal. In 1919, a Municipality regulation was promulgated with the objective of getting roads, lanes, drains and latrines of the common people cleaned. An office to implement this was established in Kathmandu with members nominated by the Rana Prime Minister. This office had two divisions, one looking after petty judicial cases and the other looking after sanitation in Kathmandu town. The Municipal Officer in charge of this office was appointed by the Rana Prime Minister. There was no provision for election of membership.

In 1930, a Panchayat regulation was promulgated, authorizing the establishment of nine village Panchayats in Kathmandu valley. Its objective was "that small disputes be solved in these village Panchayats in the interest of the local people....going to different offices for petty cases causes financial loss as well as loss of agricultural production to the people....so these village Panchayats are hereby set up..."⁶ The members of these Panchayats were to be nominees of the government; they were given grants by the government and also authorized to set a fee on the settlement of disputes. These Panchayats were more an extension of the judiciary system of the central government than rural local institutions to look after the development of villages in consultation with the villagers.

⁶ Ibid., p. 107.

In 1948, an election was held for the first time to elect members to the Kathmandu Town Panchayat. By this time, political activities against the Ranas had already reached a high level, and the independence of India from Britain in 1947 had put pressure on the Ranas to be more liberal and to accommodate the people in a gradual sharing of power with the Rana rulers. As an attempt to liberalize the political system of Nepal, the Constitutional Act of Nepal, 1948, was promulgated with some degree of power sharing with a Cabinet composed of representatives of the people, a legislature composed of people's representatives as well as the nominees of the Ranas. The Act provided also for elected village and District Panchayats. However, the Prime Minister who introduced this reform was driven out of the country, and his hard-line successor chose the course of trying to suppress the growing popular uprising against family-based Rana Prime Ministership. A village Panchayat Act was promulgated in 1950 and a program was worked out to conduct elections for village Panchayats throughout the country. The political situation was, however, already out of hand for the Ranas, and elections were not organized. On February 18, 1951 the Rana Prime Ministership ended, and promises were made for the establishment of a democratic system of government.

Political Changes after 1951 and Their Implications for Rural Development

Until a new constitution for Nepal was ready, Nepal was governed by an Interim Government Act of Nepal 1952. It incorporated the ideals of governing the country under democratic principles and of maximizing the participation of people in conducting the affairs of their country. To provide services to the people in rural Nepal, a village development scheme was adopted by the government with the objective "to assist each

village in planning and carrying out an integrated multi-phased family and village plan directed towards increasing agriculture production, improving existing village craft- and industries and to provide minimum essential health services and to improve health practices and to provide educational facilities to children and adult education programs for village women and youth."⁷

Among other ministries formed after 1951, was the Ministry for Local Self-Governemnt. A Village Development Scheme known as "Tribhuban Gram Vikas" was undertaken primarily by the Agriculture Ministry. To train the required manpower for village development, a Village Development Training Center was established in 1952. The graduates of the training center, after completing six month courses, were to man the satellite centers outside of Kathmandu and they were to train multi-purpose village workers.⁸ The training center was supported with instructors and teaching materials by the United States foreign assistance program (U.S.O.M.). The rationale given for American support to the rural development scheme was that "the village development service is the multipurpose organization which the government of Nepal is building to have an organized effective means of distributing and increasing services to the people and channel through which people may pass their judgment about problems and solutions to the central government."⁹

⁷Village Development Scheme, Kathmandu, USOM, 1952.

⁸Eugene Mihaley, Foreign Aid and Politics in Nepal (London: Oxford University Press, 1965), p. 31.

⁹Nepal - A Little Country with Big Problems (Kathmandu: USOM, 1954), p. 10.

The First Five Year Plan of Nepal 1956-60 worked out a strategy for village development. The plan provided for local contributions, particularly voluntary labor contribution. Rs. 20,000 was put at the disposal of each district office. This fund would be used to subsidize public works of local importance like a road, a well, a school building, etc. The villagers had to contribute at least half of the cost of the project and voluntary labor. After the initial stimulation of local initiative for development, a rural development strategy was planned where improved seed, fertilizer, horticultural practices and other improvements in the village would be introduced. The third stage was village development where all the previous activities would be intensified and new activities on a wider scale like soil conservation, the improvement of farm practices, health facilities etc. would be initiated. For the purpose of implementing village development activities, the country was divided into 150 development blocks averaging about 200 each.¹⁰

Between 1951 and 1960, local institutions with participation of the people could not be formed except in municipalities of the then urban areas. Even the municipalities had to depend almost entirely on the subsidy of the central government. With a view to strengthening the village communities economically and in order to develop among them the feeling of self-help, experiments were made for the institutionalization of village cooperatives. In 1954, a department was established to look after the cooperatives of Nepal and the First Five Year Plan set a target for organizing cooperative societies. However, there was a wide gap between the target and actual achievement.

¹⁰Draft Five Year Plan: A Synopsis (Kathmandu: Government of Nepal, 1956), pp. 19-20.

In this initial period, USOM/Nepal expanded its activities in rural development activities in Nepal. In the meantime, India felt that her massive rural development program in Nepal should not be interfered with by USOM, and India felt that it should extend her influence in the rural areas. Its rural development program became framed as much for the wider range Indian political interest as for the development activities of the rural people of Nepal. Within this political context, USOM limited its activities of rural development to manpower development programs. Later on, Nepal asked India to leave the village development field, and the United States had the field to itself after 1962.¹¹

The Administrative Reform Planning Commission headed by the Prime Minister Tanka Prasad Acharya in 1957 proposed a hierarchy of organization for village development activities. Village Panchayats would be at the bottom, with a Block composed of a number of villages, a Sub-division with a number of Blocks, a Division with a number of Sub-divisions to supervise, and a District unit to coordinate the overall activities. By 1960, the district and village development activities were organized in line with the proposal of the ARPC. Nepal was divided into 150 Blocks, and all development activities were given to Block Development Officers. The Bada Hakim of the District was made to look after only the maintenance of law and order administration. The creation of so many new positions in the District administration and below gave an opportunity to the existing Cabinet to fill these positions with Nepali Congress workers throughout the country. This action became the target of criticism by other political parties.

¹¹ Mihaley, op. cit., p. 82.

In 1960, King Mahendra took all authority into his own hands and promised to establish a democratic system for the government suitable to the situation of Nepal. Henceforth he proclaimed the country would be governed through a Panchayat system, without any political parties. The preamble of the Constitution of Nepal, 1962, states that "the Panchayat system shall base on the participation of people and decentralization of powers."¹²

Trends Affecting Local Institutions after 1960

Four tiers of Panchayat structure came into existence with the National Panchayat at the apex and with Zonal Panchayats, District Panchayats and Village Panchayats below.

Village Panchayats were established throughout the country. Generally, a Village Panchayat was formed for a population between 1,000 to 9,000. An area with a population of 10,000 or more was made a Town Panchayat. A Village Panchayat would have two parts, an executive body known as the Panchayat, and a legislature, the Village Assembly composed of all adult members of the village. The latter was to meet twice in a year to approve plans and programs for the village prepared by the Village Panchayat.

The Village Panchayat was authorized to collect taxes for the development activities of the village.¹³ Many functions regarding the regulation of village life were also given to the Village Panchayat. The number of the Village Panchayat has kept changing but at present, there are about 3,000 Village Panchayats in Nepal.

¹²Constitution of Nepal (Kathmandu: Ministry of Law, 1962), Preamble.

¹³Anthology of Local Panchayat Acts (In Nepali) (Kathmandu: Ministry of Law and Justice, 1969).

The creation of Panchayat units at the village level was impressive even if operational aspects of the Village Panchayats were not satisfactory. There were not enough competent people to run the administration of the Village Panchayats where they had to maintain records, minutes of meetings, accounts, etc.¹⁴ The provision for a Village Panchayat Secretary was intended to handle the administrative responsibilities of the Village Panchayat. He was to be an honorary secretary with no salary provided. Later on, this provision was changed and all Village Panchayats were staffed by a trained secretary with salaries provided by the central government.

In the early period in order to cut the expenses incurred in elections, a direct election was conducted by the raising of hands in the Village Assembly. This method of selection of candidates however helped perpetuate the power of traditional leaders of the village based on caste, large holdings of land, and status in the village.¹⁵ In the course of time, election through balloting was introduced, and the Pradhan Pancha

¹⁴ Keshav Raj Parsai and M. Misra, Development of Administrative Process in the Village Panchayat: A Case Study (In Nepali) (Jhapa: Panchayat Leadership Training Center, 1973).

¹⁵ Pashupati Rana and Mohammad Mohsin, Pattern of Emerging Leadership in Panchayats (Kathmandu: Home and Panchayat Ministry, 1966). Their findings on the ethnic basis of leadership might not have general validity as the areas surveyed had dominance held by different ethnic groups. However, the findings of leaders' having greater land holdings has validity, and large land holders do exert authority and thereby take the leadership in village Panchayats. Similar findings were presented by Patricia Caplan in her field study of Far Western Nepal. There she found that the role of the landed group leadership became active specially after the introduction of the Land Reform Program in 1964. Thus, the Village Panchayats were made the center to collect information of the status of land in the village. The Land Reform Program aroused the interest of the landed group of people to be active in Village Panchayats thereby to safeguard their land in the village. See Patricia Caplan, Priests and Cobblers: A Study of Social Change in Hindu Village in Western Nepal (San Francisco: Chandler, 1972).

(Panchayat Chairman) was elected by the villagers directly. Election by secret ballot systems was in practice for some time before the Second Amendment of the Constitution of Nepal established the "Back to Village National Campaign" as a constitutional body. This organization was to play a role of directing the political activities of Panchayats, and it initiated the strategy of selecting panchayat members on the basis of "Consensus." Approval of the "Back to Village National Campaign" was made a pre-requisite to stand as a candidate at all levels of the Panchayats. Thus, elections were narrowed, and the right of the people to participate in the selection of the office bearers of the Village Panchayat was controlled.¹⁶ The value of political education through participation in voting was reduced by the discretion given by the "Back to the Village National Campaign." This situation bred more "discord" than consensus in the political life of Nepal.

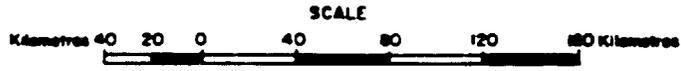
The establishment of the Village Panchayats throughout the country must be counted as an achievement of the 1960 political change. However, they worked under constraints and under close direction of the District Administration. At least, the Panchayat structure gave some identifiable forum in the village where the villagers can voice their opinions and ask for redress for the conditions of the villagers.

¹⁶Two micro-political studies of villages indicate that the election process in the village definitely raised the status of the neglected groups of people. In the case of Far Western Nepal, untouchables like cobblers and in central Nepal economically-deprived Tamangs won prestige in the village; candidates for election as Pradhan Pancha gave due recognition and importance to the voting right of these people. Thus, services were provided to them. See Bengt-Erik Borgstrom, The Patron and the Panca (Stockholm: University of Stockholm, 1976); and Patricia Caplan, Priests and Cobblers, *op. cit.*

Fig. 1

NEPAL

DEVELOPMENT REGIONS, ADMINISTRATIVE ZONES AND DISTRICTS



LEGEND

- International Boundary
- - - Zonal Boundary
- - - District Boundary
- Regional Development Boundary
- Zonal Head Quarter
- District Head Quarter
- ◆ Development Centre
- ⊗ Project Study Area.

 Cartography Section

In order to make the Village Panchayat effective, Panchayat training Institutes were created where the Pradhan Pancha, Panchas (members) and Village Panchayat secretaries would be given training in leadership, village problems, rules and regulations governing Village Panchayats, and local public works activities like bridge construction, trail construction, minor irrigation and agricultural improvement activities, etc. Such exposure in the training program helped villagers to form their opinions and to look for alternatives in village development activities.

In order to help with village development activities, especially infrastructure development, a Local Development Department (LDD) was established in 1972. This department provides technical services as well as material and financial help to villagers if the villagers ask for assistance. When asking for help from the Local Development Department, the Village Panchayat should be able to mobilize matching resources from within the villages in the form of voluntary labor and material resources. The amount of subsidy to be given to respective Village Panchayats is according to categories based on the geographical locale of the villages and the economic conditions of the region. The poorer and more remote areas are eligible for relatively greater subsidies.

Decentralization of Power: A Struggle

According to the provision stated in the Constitution of Nepal of 1962, decentralization of power and people's participation in the political process were to be important dimensions in the administrative and political reorganization of the country.

Nepal was divided into 75 districts instead of 35 as had been the case during Rana administration. Fourteen zones were created with the objective of having more interaction between different ethnic groups and

geographical regions.¹⁷ The activities which were being carried out by the Block Development Officers were amalgamated with the newly created District Panchayat. The administrative district units were made smaller so that administrative services could be reached better to the population.

The scheme was proposed to effect administrative, political and economic decentralization within the Panchayat structure, and a 20 year decentralization of power scheme was proposed. It was argued that without economic decentralization, political decentralization would be ineffective. A pilot project was undertaken to experiment with the working of a Panchayat Development and Land Tax system in Jhapa District. This scheme was introduced along with the Land Reform Program in 1964.¹⁸

The Local Administration Act, 1965, was promulgated to authorize District Panchayats to look after all development activities in the districts. The District Panchayat Chairman who would be elected from the District Assembly was made a major actor in all district development activities. In order to help the District Panchayat Chairman, a Chief District Officer (CDO) from the Home and Panchayat Ministry and belonging to the administrative cadre of civil service, was made the secretary of the District Panchayat. With the introduction of the CDO, the position of Bada Hakim in the District administration was abolished. The law and order function was given to Zonal Commissioners, assisted by special officers. Thus, the law and order function and development activities were separated and put under the control of different agencies.

¹⁷ Report of the Zones and Development District Demarcation Committee, His Majesty's Government, 1962.

¹⁸ Guidelines of the Decentralization of the Government Functions, (Kathmandu, Ministry of Panchayat, 1965). For an evaluation of this experience, see Mohan Man Sainju, et al., Return to Budhure (Kathmandu: Centre for Economic Development and Administration, 1974).

Within a few months of such an arrangement, conflicts between the Chief District Officer and the Chairman of the District Panchayat became acute in many districts. The Chairman regarded the Chief District Officer as his secretary and the CDO being a civil servant could not accept the District Panchayat Chairman who was often an illiterate person from the District as his boss. The personality conflict became dominant, hampering the activities of the District Panchayat. The CDO was succeeded by a Panchayat Development Officer (PDO) as the secretary of the District Panchayat. The CDO was made the overall supervisor of the district administration including the development activities and the law and order function. Hence, the CDO emerged as the most powerful man in the district, even overshadowing the position of the Chairman of the District Panchayat.

In order to make the district administration more responsive to the national objectives and goals, a District Administration Reform Plan was introduced in 1975. It made the field units of many ministries subordinate to the Chief District Officer. The District Panchayat was pushed into an ineffective role where it has to depend on the CDO. The District Panchayat Chairmen were unhappy with the District Administration Reform Plan and raised their voices against the scheme. Efforts are underway to compromise the power between the CDO and the District Panchayat Chairman.¹⁹

Efforts to Reach the Rural People

One of the strategies adopted to reach the people is the bureaucratic approach. To achieve the objectives set after the political change of 1951, the administrative services have been greatly expanded. In contrast

¹⁹ Dwanika Nath Dhuyel, "District Development Administration: Problems and Prospects", in S.D. Muni (ed.), Nepal: An Assertive Monarchy (New Delhi: Chetara Publications, 1977), pp. 110-126.

to the Rana administration which maintained minimum administrative structures in the District with the objective only of extracting revenue and maintaining law and order, the administrative services took a more extensive role. Services of junior agriculture technicians, health assistants and village schools have been expanded. In 1956, government employees were estimated to number about 14,000; there were 110,000 employees including the employees of the public corporations in 1979.

A prototype administrative structure was set up in all districts irrespective of revenue income generated for the central government. Still attempting to reach the rural population without corresponding local organization strength resulted in ineffectiveness of the government services, and officials at the local level became more center-oriented than client-oriented.²⁰

The center has accepted that the rural populace deserves more attention; their basic needs of food, clothing and shelter should be met as much and as soon as possible; small farmers should be given more production inputs; reforms in agriculture should be introduced. In order to fulfill these objectives, a regional development approach in planning was adopted and a "small area development" strategy was taken up by the government. Integrated rural development programs were launched. Decisions implementing the goals set by policy makers at the center could have had a far-reaching impact upon the rural population. However, the administrators tend to be unilateral suppliers of these services. In preparing to provide such services, little consideration was not given to the needs

²⁰ Prachanda Pradhan, Public Administration In Nepal (Kathmardu: Tribhuvan University Press, 1976), pp. 109-110.

and demands of the public. Thus, the supply of such services has not been accountable to the clients and the supply of services was determined largely by the whim of the suppliers. Formulation and implementation of Integrated Rural Development Programs without involving the public in the identification of needs and in the implementation process has become the rule rather than exception.²¹ The achievement of targets set for the program, often by bureaucratic manipulation of target fulfillment, carried no direct benefit to the targeted group at the local level. Thus, the bureaucratic approach to reaching down to the people through government services negated their role of participation in determining services as well as in executing them.²²

Cooperative Organizations in Nepal

Cooperative societies at the village level were considered as an important institutional vehicle to transform rural life. A Cooperative Department was created in 1954 and a movement to organize cooperative units in the villages was launched. The First Five Year Plan set the target of organizing cooperative societies throughout Nepal but this ambitious target was never fulfilled. To regulate the cooperative societies, a Cooperative Society Act was enacted in 1959 and gave legal status to cooperative societies in Nepal. Multi-purpose cooperative societies, credit societies, cottage industries, consumers' societies, dairy societies, marketing and credit unions were created. However, the operation of cooperatives was not satisfactory, so His Majesty's Government of Nepal appointed a Cooperative Review Committee in 1968.

²¹ Pertinent examples can be taken from "Integrated Rural Development Project - Rasuwa-Nuwakot" financed by the World Bank.

²² See Report of Seminar-Cum-Workshop on People's Participation in Rural Development in Nepal (Kathmandu: Agricultural Projects Service Centre, 1978).

This committee reported that about 17% of the existing cooperatives were in good condition, fulfilling or capable of fulfilling expectations, while 65% of cooperative societies were in poor condition without any capability of fulfilling the objectives; about 18% had potential but were not capable at the time of review.

The non-functioning of cooperatives was attributed to the fact that the "societies were organized by a handful of people and were limited only to a small area of the Village Panchayats...The maintenance of records and accounts was generally poor and there were many cases of misappropriation and mishandling of funds." On the social and political front, the cooperatives let the status quo persist, and the local landlords, money lenders and merchants - people in positions of socio-economic dominance - used the societies for their own benefit.²³ In subsequent years, supervised cooperative societies were pushed. A hierarchy of Cooperative Society Committees was formed with Cooperative Society Committees at village levels, district levels and on a national level. The cooperatives at the village level were made the dealers and agents of the public enterprises of Nepal with the hope of providing financial credit for agriculture improvement as well as making them distributive units for necessary consumer goods and agriculture inputs.²⁴ The cooperative movement in Nepal has been mainly a government effort to reach the rural people. The bureaucratic efforts could not get local organizations internalized and institutionalized in the rural population.

²³ M.M. Sainju, Political Implications of the Cooperative System and Tiller Participation in Nepal (Chapel Hill: University of North Carolina, unpublished dissertation, 1972), p.76.

²⁴ Bhuban Bajrabajrachaya, Impact of Village Sajha Society on Small Farmers (Kathmandu: CEDA, 1978); and Cooperatives: Problems and Prospects in Nepal (Kathmandu: CEDA, 1978), (Mimeograph).

Panchayat Development and Land Tax Scheme

An experiment with a Panchayat Development and Land Tax was conducted as a pilot project in 13 Village Panchayats in eastern Nepal replacing the traditional land tax. Financial support for the Village Panchayats was thought to be more secure if land revenue were collected on the basis of actual land productivity. Of the amount collected, 55% was to remain in the village for meeting local development needs, 10% would go to the District Panchayat and 35% to the Consolidated Fund of His Majesty's Government. In the course of time, this scheme was extended to several districts of Nepal. The experimental villages gave positive indications of the effectiveness of the Village Panchayats in development activities, in the maintenance of school systems, transport improvements, irrigation facilities, etc.²⁵ Once this scheme was extended in several districts where the farmers had to pay more through the PDLT Scheme, however, there was serious resentment which resulted in withdrawing the PDLT Scheme in 1979.

The withdrawal of the PDLT Scheme has forced a readjustment in the resource allocation made for the sixth Five Year Plan, 1981-85. From a national perspective, this scheme could bring greater disparity and different levels of development among the geographical regions of Nepal by setting the tax base on agricultural productivity. The middle hill regions and the northern part of Nepal where agricultural productivity is low would have less well-financed local development operation efforts. Such disparity which is already wide among different geographical regions would continue further.

²⁵ (see Sainju, et al., Return to Budhbare, op. cit., and sources cited therein.)

The previous sections have surveyed the efforts of the government for the last 30 years to introduce local level institutions at village levels through different policy instruments of the central level. However, these institutions have been effective only to a limited extent. In sporadic cases, they have become successful. The inactive nature in most of the local institutions can be attributed to the lack of scope provided and promoted for local people's participation on a wider scale.

Approach of this Study

This historical overview indicates that Nepal has emerged from the condition of having no statutory local institutions before 1951 to the establishment of various such institutions at the village level at present. At least three approaches can be delineated for reaching the rural population;

1. Expansion of the bureaucratic structure down to the rural population in order to reach the local rural population through bureaucratic channels without having corresponding responses and reciprocity from the local population.
2. The statutory institutions which in operation, are essentially extensions of the agencies of the central bureaucracy. Such institutions have had difficulties securing a wide range of participation of the local people. However, efforts have been made to mobilize local resources in the form of voluntary labor to implement local development projects.
3. Local institutions based on ethnic or other group characteristics with some capacity for community self-management. With the rise of social and geographic mobility and with the establishment of Village Panchayats having a larger population and area than in the Village Community as earlier constituted, the fabric of the community self-management system has been greatly weakened.

Which approach is most appropriate, or does there need to be still some other, perhaps hybrid institutional form to support more rapid rural development? This depends in part on what the tasks to be undertaken are. We find that by and large rural people and their leaders feel a need for things that mostly fall in the category of public works, as seen from

Table I

VILLAGERS' AND LOCAL LEADERS' PREFERENCE FOR
THE MOST NEEDED DEVELOPMENT WORKS

Development Works Needed	Villagers (N=387)			Local Leaders (N=257)		
	Rank 1	Rank 2	Rank 3	Rank 1	Rank 2	Rank 3
Irrigation	23.9%	9.8%	8.7%	44.7%	11.2%	7.1%
Drinking Water	23.9%	15.9%	11.0%	14.4%	18.5%	9.6%
Roads and Trails	14.0%	23.5%	18.5%	5.8%	25.2%	13.0%
Dispensaries	12.8%	18.8%	14.8%	12.4%	12.2%	10.0%
School Building	6.8%	3.4%	8.1%	5.8%	5.9%	6.3%
Bridges/Culverts	3.7%	3.4%	4.3%	3.5%	2.8%	6.7%
Cottage Industry	3.7%	2.9%	6.7%	2.7%	5.5%	10.4%
Seeds, Fertilizer	4.0%	6.1%	8.7%	1.6%	7.1%	8.4%
Agricultural Loans	2.8%	7.7%	9.6%	3.9%	3.9%	13.0%
Adult Education	1.4%	1.8%	1.7%	1.6%	2.3%	5.4%
Agricultural Equipment	0.3%	1.1%	2.6%	0.8%	2.3%	5.9%
Electricity	1.4%	2.9%	1.7%	0.8%	1.6%	0.9%

Note: The percentages in each column do not add up to 100.0 because only the most needed ones have been included.

Source: Bruno Knall, Local Government and Rural Development in Nepal, Kathmandu, March 1975, p. 15.

Table I (p.26). The data are based on interviews in 18 different Village Panchayats selected from five districts that are reasonably representative of the four geographical belts of Nepal.* Since most of the needs expressed by villagers can be addressed as infrastructure development through public works activities, we should consider what would be the most effective means for responding to such needs.

Within the context presented in this first chapter, case studies of rural public works activities are presented below to analyze: (A) the degree of participation and local organization feasible in such efforts; (B) the effects of choice of technology on the level of people's participation in implementation of development projects; and (C) rural resource mobilization and cost factors in rural public works projects. We will be looking at local people's capability for making demands and at the corresponding response of the administration to provide more services in the form of financial resources, technical inputs, etc, to achieve local development goals.

The next three chapters present cases of public works activities in rural areas in Nepal:

- (A) Banglung Suspended Bridge Construction;
- (B) Illam-Charali Trunk Road Construction; and
- (C) National Development Service Efforts at Infrastructure Development through Local Resource Mobilization.

These are chosen for the light they shed on good and not so good experiences with people's participation in rural works provision. In a concluding chapter, we will suggest what implications these experiences present for future rural development efforts in Nepal.

*Terai (Siraha), Lower Terai (Surkhet), Hills (Palpa and rural part of Kathmandu), and mountains (central and northern parts of Gorkha).

CHAPTER II

BANGLUNG SUSPENDED BRIDGE CONSTRUCTION: AN OUTCOME OF PEOPLE'S PARTICIPATION

The Banglung Suspended Bridges Project is significant for the organized effort of the local people and the use of traditional technology available within the district in order to construct dozens of bridges for the improvement of rural transport in Banglung District as a whole. The people were able to construct an unprecedentedly large number of bridges at remarkably lower cost because the project deliberately avoided using exotic and costly materials. Cement and other materials that had to be imported from outside the district, except for basic materials like cable, were avoided and instead iron fittings and other materials which were made or available in the district were used. An important feature of this project was the large-scale participation of the local people in deciding on the sites of bridges, in transporting construction materials, and finally in constructing the bridges themselves.

Banglung is a mountain district in western Nepal and by the nature of the area, the people there often have to cross major rivers and streams in their day-to-day life. The tradition of construction of bridges connecting main trails across rivers was common, and such construction ventures would be undertaken by certain local people with the hope, according to their religious beliefs, of earning merit after death. Such types of bridges would be maintained by the family of the benefactor who financed the bridge. Construction of such bridges was sporadic and unplanned, and

the site of the bridge would be decided by the donor family. They were not built in terms of improving rural transportation with a district perspective in mind.

Rural Transport Improvement Efforts in Nepal

A brief account of the efforts of HMG Nepal for rural transport improvement would be relevant at this juncture. In order to improve the traditional trail system and rural transport in general, HMG entered into an agreement with USOM/Nepal for a "Rural Transport Improvement Program" in 1958. The agreement visualized an integrated approach for this rural transport program with trail improvement, STOL airport construction and suspension bridges being provided in an integrated way.

The Raods Department of HMG established a unit to look after the construction of Suspension Bridges in collaboration with USOM/Nepal. The difficulties faced by the project from the outset were: (A) a lack of trained manpower within Nepal to work on the Suspension Bridge Project; (B) no inventory of the required number of bridges and no priority setting; (C) no metal fabricating workshop in Nepal; and (D) not much cooperation from different units of HMG to carry out the project.

One of the important components of the project agreement was that the local administrators, in consultation with the local people would decide where they needed the bridges. The list would be sent to the Roads Department and on the basis of a centrally-compiled list of bridges for the districts, a priority schedule would be set. The local people, as their contribution to the project, should transport the materials from Birgunj Railhead on the Nepal-India Border to the construction site. To begin with, the government was not able to compile a reliable list

of the bridges required in districts, but also, people's participation in terms of transportation contribution never was forthcoming in the manner expected.

Finally, it was decided in Kathmandu that targets for the construction of bridges should be set there, and project authorities worked out all plans for experimental bridges at the initial stage. They placed orders for the fabrication of three suspension bridges with 100 foot to 300 foot spans from a company in Calcutta, India. When the ordered bridges were ready, the authorities in Kathmandu were not yet ready with locations to site the bridges. So they started looking around for appropriate spans of river in order to use the already fabricated bridges. The bridge locations thus were not decided primarily in terms of the needs of the people; rather they were a result of the search for an appropriate span of river across which to fit the already fabricated bridge. Thus, these bridges were inappropriately sited and when erecting the bridge, not much consideration was given by planners to the behavioral patterns of travelers along the trail route.

The lessons of such a mistaken approach were quickly apparent and the approach to site selection and bridge design was modified. The capability for suspension bridge construction has tremendously increased over a period of time in Nepal. Workshops with the capability of fabricating suspension bridges grew within Nepal. The suspension bridge division within the Roads Department developed its designing capability, and standardization of suspension bridges was developed in collaboration with the Swiss Association for Technical Assistance (SATA). But the construction costs of each bridge have been tremendous. Hence the study of the Banglung Suspended Bridge Project becomes relevant regarding the

cost and method of construction of bridges. The techniques used in that district have permitted it to become a district with a complete network of bridges. (It is now designated a Suspended Bridge Free District). A suspension bridge, it should be noted, requires a more sophisticated technology for balancing the suspension, and tower and cement components need to be higher, whereas suspended bridges are constructed from both sides of the river and do not require such a sophisticated technology as that of suspension bridges.

Initiation of the Banglung Project

Bridge building in Banglung District uses an old technology which was never considered during the initial period of introducing the Rural Transport Development Program funded by USOM/Nepal. Previously, the Banglung people built wooden cantilever bridges, many of which can still be found in use. They also made suspended bridges across rivers with chains made out of locally-mined iron. Technical know-how to do this was and still is locally available. It has been a tradition in this District that if a well-to-do person wanted to undertake a work of charity, he would donate financial resources for a public facility, such as a school building, chautara (a structure of stone built around a tree or two as a resting place for travelers and porters) or a bridge across a river. Other people in the locality would contribute free labor in such an undertaking in order to help him realize his act of charity. Contributions of voluntary labor have also been part of the culturally recognized system of Parma (a household labor exchange system on a reciprocal basis). Parma takes place mostly during the planting and harvesting seasons and during the construction of individual houses in a village. So, the sharing of labor is a part of culture in this region.

Mr. Omkar Prasad Gauchan, a member of the National Panchayat (National Legislature) from Banglung District and a son of one of the district's recognized public leaders,* saw the possibility of launching a campaign to construct a large number of bridges, thereby alleviating the problem of fording rivers in the district. Perhaps at least in part, Mr. Gauchan's effort to launch this campaign was motivated by a desire to strengthen his political standing in the district. Nevertheless, the campaign provides excellent evidence that indigenous technology can be as useful and effective as any imported technology in fulfilling the needs of the people. Further, the cost of development projects can be substantially reduced by enlisting people's participation and by using locally available technology.

Mr. Gauchan presented a proposal to the government for a grant in order to construct bridges with local technical know-how and labor and with governmental participation in the form of providing materials such as cables and iron fittings. One basic characteristic of his proposal was that it completely did away with the services of trained engineers and overseers. It was felt that their design would cost more money and would slow down work. The number of such technicians in Nepal is limited and reliance on them would not result in the large number of bridges that were proposed. So, his proposal indicated that the government needed only to support local initiative by a grant to provide essential materials such as cable and iron fittings. Local people would mobilize indigenous technicians and unskilled laborers to complete the construction of the bridges.

Despite several years of pleading, it was difficult for Mr. Gauchan to get the Local Development Department of the Home and Panchayat Ministry

*Such persons are referred to in Nepal as "social workers."

interested in the proposal. The LDD was to provide technical support for such local development activities. However, the nature of the proposal submitted by Mr. Gauchan required an entirely new approach, quite a departure from the nature of technical support and grants being provided by the LDD. Either the LDD was skeptical about the proposal or it did not have confidence that such a large-scale bridge construction project could be possible at that low cost, mobilizing such an enormous amount of local voluntary labor and indigenous technology.

Mr. Gauchan was finally able to get the then Vice-chairman of the National Planning Commission, Dr. Harha Gurung, to visit Banglung District on a trip to Mustang in 1972. Making use of the occasion, Gauchan convinced him of the possibility of such construction by showing him a few such bridges already in existence. Having won him over, Gauchan submitted a new proposal to the Local Development Department requesting its assistance in the construction of a total of 50 bridges, 30 of them with a span up to 50 feet and the rest with spans up to 100 feet in three phases of ten, twenty and twenty. The amount of financial involvement estimated was Rs. 1,400,000 out of which only Rs. 400,000 was expected to come from the government in the form of materials. This amounted to only \$110,000 in total, and only a little over \$30,000 from HMG.

The response of the government at the initial stage was conservative, and HMG approved only a total of five bridges though it assured support of more on the basis of experience with the first five. In 1974, after further negotiation, still more bridges were approved and a sum of Rs. 260,000 (\$20,000) was sanctioned. Upon the granting of money, a plan was made to construct 20 bridges plus three more supported by the LDD. These 23 bridges were the target for the first phase of the Project.

Project Management

For implementation of the pilot project, the Local Development Department formed a Committee that was called the Banqlung District Suspended Bridge Construction Pilot Program Committee, chaired by Mr. Gauchan as a member of the National Panchayat from Banqlung District. The chairman of the Banqlung District Panchayat was appointed as vice-chairman of the committee. Other members included a District Panchayat member and a District Assembly member. The Panchayat Development Officer of the District who was also secretary of the District Panchayat was nominated as the member-secretary of the Committee. The committee was to be accountable to the LDD. A separate bank account for the project was maintained. All expenses were to be authorized by the chairman of the committee, or by the vice-chairman in the absence of the chairman. Although the committee was composed of members from different levels of the panchayat structure, this committee was, for all practical purposes, operating outside the framework of the regular institutional structure provided by the political system of the country.

At the project level, provisions were made by the LDD to create "sub-committees" of the main committee at the village level to mobilize, supervise and implement the project. Members of these sub-committees did not necessarily have to be members of the local Village Panchayats. They included Panchayat members, members of class organizations or social workers for the village.* The members and chairman of the sub-committee were selected by the main committee on the basis of their dedication and

*The government of Nepal previously established "class organizations" for peasants, women and other social categories, though these never became very active at the local level. On "social workers," see previous footnote.

their potential for mobilizing local people to implement the bridge construction project.

Disbursement Arrangements by the LLD

Altogether, the Local Development Department has made an allocation of Rs. 660,000 (\$50,000) for a total of 62 projects involved in the two phases of the program. The bulk of the contribution was in the form of construction materials. Payments were made directly to the Nepal Transport Corporation to buy used cables from a ropeway which runs between Kathmandu and Hetanda (cables from that ropeway were to be replaced every three years.) The cables and some other iron fittings were transported by the LDD up to Naudanda, the town served by the road closest to Banglung District. Iron fittings for the bridge were made by one of the local steel fabricators in Kathmandu and payments for them were made directly by the Local Development Department. Only the balance of funds after paying for the materials was sent to the Pilot Project Committee. In the resource allocation of the first phase, there was a cash balance of only Rs. 74,000 (less than \$6,000) which the Committee distributed to the sub-committees at the rate of Rs. 1,000 - 2,000 per bridge depending on the cash requirements of the projects.

The local projects did not require much funding because most of the work was done on a voluntary basis. This included the carrying of cable from the road at Nandanda to the construction site, the collecting of stones and the excavation for anchor blocks. Only the skilled workers, masons, carpenters and blacksmiths were paid for their work.* In many cases, local cash donations were made to help meet the local costs. In

*Interestingly, such persons often are from castes regarded as low status, so it was often the case that low caste persons were paid while higher caste persons contributed labor.

the case of a 270 foot span bridge over Kaligandaki at Armadi, the actual total cost of the bridge was Rs. 140,000 (\$11,000). Rs. 100,000 was collected locally and Rs. 40,000 came from the Pilot Project Committee (this included the materials plus Rs. 11,000 in cash). A suspension bridge of this size constructed by the government would have cost Rs. 1,100,000 (\$86,000), almost eight times more.

Method of Local People's Participation

The participation of local people in bridge construction basically in the form of voluntary labor and cash contributions was remarkable in Banglung District. The Pilot Project Committee generated the feeling among the villagers that the job of construction of the bridges was theirs. The committee would provide them only with the required amount of cable and iron fittings and some amount of money depending on the span of the bridge. The materials required for the bridge had to be carried by the people from the nearest motor road to the bridge site. When asking for the materials to construct the bridge, the sub-committee had to assure the Pilot Project Committee that they would mobilize the local people for the construction of the bridge. If such participation was not assured, the materials were not made available. In the case of comparatively backward areas of the district with inarticulate groups of people, the Pilot Project Committee would take special initiative to help such people build the bridge.*

In consultation with the local people, the sub-committee would make the rules and regulations governing contributions for construction of the bridge. Generally, one person from each household in the village had to help with portering the materials. Those who could not participate

*Some communities are made up largely of ethnic groups having had less contact with the modern sector and less schooling.

in this effort would have to contribute food or money to the people who did participate in the actual work. Almost all Village Panchayat people got involved. In some cases, only the villages which were going to get the direct benefits from the bridge would be involved in the bridge construction.

Timing is one of the important factors for having such public works projects undertaken with people's participation. The villages willingly cooperate and participate during the post-harvest period when they do not have much to do on their farms. Construction of the bridge occurs during two time periods, in March and April when villagers bring materials to the site and later in December and January when they work on the actual construction of the bridge. According to information collected in the field, once all the materials were on site, the bridge could be completed within 25-40 days.

The participants are grouped into two categories: paid, skilled laborers such as blacksmiths, carpenters and stonemasons, and manual laborers who would be unpaid volunteers. Villagers have shown pride in doing the job by themselves. Once Peace Corps volunteers in Banqlung District went to help the villagers in bridge construction, but the villagers sent them back, telling them that they were capable of building their own bridges by themselves. They had the skill and technology of bridge construction coming down from generation to generation within the villages. For these people, a bridge was much more than just an easy means of crossing a river, it was a symbol of "capability of the villagers."

Bridge Site Selection

In preparation for the project, the Banqlung District Panchayat prepared a list of 118 bridges required in the different Village

Panchayat areas throughout the district. This list based on Village Panchayat suggestions comprised an overall assessment of bridge requirements for the district as a whole. From this list prepared by the District Panchayat and approved by the District Assembly, the Pilot Project Committee selected 62 bridges to be completed first, at the cost of Rs. 660,000. These 62 bridges were selected from the priority lists of the villages. These bridges had the endorsement of the District Panchayat because the chairman of the District Panchayat was the Vice-Chairman of the Pilot Project Committee.

District Administration and Pilot Project Management

Some local politicians had reservations about the implementation process for bridge construction activities in the district. They argued that the District Panchayat, not the Pilot Project Committee, should be the legitimate agency for implementation of this program. However, the local politicians who had voiced this opinion did not want the process stopped. The reason for not vigorously campaigning against this program was the notable quantity of local participation and enthusiasm for the bridge construction movement in the district. In our field study, interviews were conducted with people who had experience in undertaking bridge construction under District Panchayat subsidization and under Pilot Project Construction Programs.

Local leaders expressed the view that the earlier District Panchayat subsidized project format was too complicated a process. It involved a request for bridge construction to the District Panchayat and this usually would take a long time to get the funds approved. Before approving the funds, an overseer of the District Panchayat had to survey the site and prepare a cost estimate. He had to present his report to the District

Panchayat. Upon approval of the project by the District Panchayat, the grant would be made available on an installment basis so that the second installment would be made available only upon satisfactory completion of the first phase of work. The completion of this work had to be certified, again, by the overseer of the District Panchayat.

The local leader of the village was held responsible for all activities but, unfortunately, he had little control over many activities which would go on in the District Panchayat. He had to be dependent on the favor of the District Panchayat all the time in order to get the project completed. Frequent visits by him to the District Panchayat would be required for the release of funds, and on completion of the project, a final check had to be made by the overseer of the District Panchayat. Such a process presented lots of difficulties for the local leaders and, often, they would prefer to avoid such responsibilities. On top of all this, when villagers learned that a grant had been made available by the District Panchayat, they would not contribute voluntary labor or participate in public works, thinking that local leaders were pocketing the money and mobilizing the voluntary labor instead. Such a situation would lead either to abandoning the project or increasing the cost of the project.

In the case of the Pilot Project Bridges Construction Program, the bureaucratic procedures were made shorter and informal. The objective of completing construction was given top priority, so the procedures governing them were made to depend on the individual situations which would be decided by the community itself. Thus, activities could be geared according to the need of the particular situation. The committee was responsible for providing all local materials. Once the outside materials were made available, the villagers themselves would decide

how to go about constructing the bridge. They ended up putting more effort into the construction, resulting usually in a better bridge than one built by conventional government means.

Villagers would feel that these bridges belonged to them and a sense of community ownership would develop. When a Village Panchayat had to make several bridges, they would learn from the experience of constructing the first bridge and introduce improvements in the second and subsequent bridges. A sense of competition emerged when several bridges were being constructed in the District at the same time. There was a collective effort from the villagers to make theirs a better bridge. Since the people involved in the bridge construction activities did not handle many financial transactions, there was little chance of misappropriation or corruption. This seems to have contributed to villagers' willingness to participate in the common effort.

Supervision by Members of the District Panchayat

The District Panchayat regularly assigns areas which are each to be supervised by one of the District Panchayat members. In the case of suspension bridge construction, the area supervisors took a keen interest and ensured that activities for bridge construction went smoothly. If the Village Panchayat encountered problems, the District Panchayat supervisor would help them to sort out the problem. In one instance, in Pandav Khani Village Panchayat, the villagers did not have the skill needed for construction of the bridge and the Village Panchayat had difficulty in meeting the target date set for completion of the bridge. The Village Panchayat sought help and the supervisor arranged to send a group of people from a nearby village with technical know-how for constructing bridges who helped them construct the bridge. The villagers of Pandav

Khani learned the trade of bridge construction on-the-spot by themselves with practical experience and were subsequently able to construct other bridges in the village. Thus, inter-village transfer of technology was also possible without difficulties. The type of technology used could be transferred by communication on the same "wave length" of local understanding, therefore, adoption was quicker and easier.

Cost-Factors in Bridge Construction

Using technical know-how available locally, bypassing the usual administrative infrastructure, and making a deliberate effort not to use imported materials like cement in construction tremendously reduced the cost of bridge construction. In the government's undertakings, it was estimated that almost 40% of the total cost of the bridge would go into administrative overhead in terms of office maintenance, salary and allowances for staff. In addition, the money spent on materials like cement cost a great deal. As noted above, the 270 foot span bridge over Kaligandaki at Armadi cost only Rs. 140,000 whereas a similar length suspension bridge would cost generally about Rs. 1,100,000. In the same district, the government undertook to construct a suspended bridge over Kathe Khola near Banglung Bazar costing Rs. 65,000 whereas a similar bridge constructed by the local people was completed for Rs. 20,000. The Banglung people could not believe the Kathe Khola Suspended bridge cost Rs. 65,000 because these people were directly involved in the operation of constructing similar bridges in the District.

Utility, Safety and Expected Life

The utility of bridges situated on more important trails has been greater, of course, than for those built on the minor trails which serve

only the local people. But this does not obviate the value of the latter to those who use them. Engineers are of the view that the safety factor for travelers in the case of all major bridges is good. Structurally, the anchor blocks and anchorage have a large enough safety margin. The anchor block is sufficiently stable as it functions like a solid block, with less stress on it than on the towers of a suspension bridge. Since the cables are used ones, they may have less load carrying capacity than new ones but the short span bridges being constructed are safer than longer span bridges using the same type of cable.

The factor of safety such as required by international standards, may not be achieved by using second-hand cable according to the engineers, but they feel that the compliance to such standards alone should not be the criterion. The safety factor appears adequate, particularly, because the bridges are maintained by the local communities better than usually for rural bridges constructed by the government. The expected life of the bridge without any major maintenance is about 10 years. To increase the life expectancy of some of the bridges, the local people have tended not to use them during the dry season and to do any necessary repairs and maintenance during this season.

Findings

(A) Such projects which directly relate to the needs of the people have a greater chance of mobilizing both financial resources and voluntary labor within the village. The immediate and visible implementation of the project attracts such resources and increases the rate of people's participation in the implementation.

(B) The use of familiar technologies with which rural people are accustomed elicits more participation. Such familiar technology makes

the rural community capable of making decisions by itself in implementing the project. In the Banglung case, the bridge construction technology was already known to the local community, so they could make the choice of what techniques they would employ in implementing the project. Such technology developed out of the village environment could be easily transferred from one village to another.

(C) Having fewer financial transactions in local projects (with inputs from outside provided mostly in kind) makes the villagers more confident that no corruption has taken place. This in time increases their sense of responsibility toward the project. On completion of such a project, it becomes the community property and the community takes the responsibility of maintenance of the bridge because local materials are available and the technologies for maintenance are known within the community.

(D) Organization at the grass-roots level and involvement of the local people in making decisions about the project definitely helps to increase their participation in implementing the project faster. The use of existing formal institutions is valuable, but it is good if there is enough flexibility to work through informal organization and leaders where the formal ones are not strong or not committed to the task at hand.

(E) The choice of locally available materials decreases the cost substantially. In the Banglung case, local people did not use cement which is costly and difficult to transport to the villages. They used only local materials such as rock available within the village setting. The choice of local materials and use of volunteer labor plus the minimization of bureaucratic involvement at the site for supervision reduced the cost tremendously.

CHAPTER III

THE ILLAM-CHARALI TRUNK ROAD CONSTRUCTION: A STUDY ON THE LEVEL OF PEOPLE'S PARTICIPATION AND GOVERNMENT INTERVENTION

This chapter presents the role of local people's participation in trunk road construction linking a hill district with Nepal's major East-West highway in order to bring the district's people into the mainstream of national activity. An attempt is also made to show the stages of interaction between the local people and the Roads Department of the central government and the extent to which the local people can actively participate in terms of the task and the level of technology involved.

Geographical Setting and Socio-Economic Background

The geographical location of this project site of road construction is in the eastern part of Nepal: Illam, a hill (mountain) district, and Jhapa, a Tarai (plains) district. The population of these districts is about 200,000 each with a variety of different ethnic groups.

Jhapa is a rice and jute growing district whereas Illam produces tea, cardamom, citrus fruits and potatoes. The economic link of Illam is more to Jhapa than to other districts of Nepal. The educational level of these districts is somewhat higher compared to the national average. Illam is adjoining the District of Darjeeling in West Bengal of India. Darjeeling was at one time a colonial "hill station" of British India, so the infrastructure of transport, educational institutions and social services is well developed there, and the people of Illam are familiar with the infrastructures of Darjeeling.

Road Construction Activities in Illam

Immediately after the political change in Nepal in 1951, Illam people organized themselves and decided to construct motorable roads in Illam linking up with Darjeeling to the east of Nepal and with Jhapa to the south. The road construction movement started in Illam even before Nepal had any plan of highways or road links among the districts of Nepal. Road construction and school building construction were the two most notable activities after 1951 which enlisted voluntary labor contributions and local resource mobilization. As a result of the movement for road construction, Illam was the first hill district in Nepal to have motorable roads. These went to Jhapa district and through Pasupati Nagar to Darjeeling in India. Besides these roads, the people of Illam were constructing link roads to Illam district headquarters.

These roads were an expression of the need for an improved transportation system, but the people did not have all the required technical capacity during the road construction movement. Due to a lack of technical input in the alignment of the roads, they were either difficult to use or were washed away during monsoon rains. In the course of time, the Illam people learned the difficulty of road construction. They realized that unless technical support could be available in road construction, the voluntary labor and resources contributed by the local people would be wasted. The people of Illam realized the value of having a technically sound, durable road rather than a spontaneous, amateur road which would be washed away in the monsoons.

Expression of Needs by the People of Mechi Zone

Even before there was a plan building north-south linking roads in Nepal, the people of Illam were digging motorable tracks along such lines,

to connect with the east-west main highway. No comparative example of such effort could be found in other districts of Nepal. They had about 200 miles of motorable tracks constructed between 1951 and 1963. However, many portions of such roads became unserviceable because of inappropriate alignment or technical infeasibility of the track.

In the winter of 1963, a concerted effort was launched to build a functional road between Illam town, the district headquarters of Illam district, and Jhapa district in the southern part of Nepal where the new East-West Highway would be. A joint meeting of leaders of Panchayats and class organizations of both districts was convened, and they decided that a linking motorable road between Illam and Jhapa Districts needed to be constructed.

The joint meeting decided several important issues concerning the road construction; (A) no dispute should occur in the matter of alignment of the road, and, (B) the alignment of the road should be determined by a survey by the engineers of the Roads Department of His Majesty's Government. Once the technically feasible alignment was set by technically competent engineers, the alignment should be accepted by all parties concerned, and Panchayats from both districts should contribute to the construction of the road.

In the winter of 1965, the Zonal Assembly of Mechi Zone, which includes both Illam and Jhapa districts, decided that a motorable linking road should be constructed all the way from Jhapa to Taplejung, but later on this was modified to have construction of the road just between Illam and Jhapa in the first phase. In the same year, the Zonal Assembly formed a "Cooperative Committee for the Construction of Linking Road in Mechi Zone." The membership of the committee included not only the

Panchayat representatives but also high ranking district and zonal level government officials, social workers and businessmen of the zone. The main job of this committee was to ensure cooperation from government, local people and businessmen of the areas. This committee was an ad hoc committee for the purpose of the road construction and to establish liaison with different sectors in the zone.

Roads Department's Technical Support and Choice of an Alignment

In 1965, on the request of the Mechi Zonal Assembly and "Cooperative Committee for the Construction of Linking Road in Mechi Zone," the Roads Department of HMG deputed engineers to do a detailed technical feasibility survey for the road construction in Mechi Zone. On completion of the survey, the engineers came out with three possible alternative alignments to link Illam with Jhapa. They were:

(A) Illam - Chirapane - Toktim - Saneschare

(B) Illam - Itbare - Fical - Budhabare - Saneschare

(C) Illam - Itbare - Shantpur - Saneschare

(A) This first alignment was the shortest route but it had to pass through difficult terrain and a larger section of the road would pass through forest, so it would not serve a large section of the population of Illam District. Besides, this alignment required a number of bridges which would cost more money than a road avoiding major bridges. It should be noted that Saneschare of Jhapa District had been a trading center for the Illam people for some time because the walking distance between Illam District and Saneschare was short. So the businessmen of Saneschare wanted to have the road constructed up to Saneschare so they might continue to have good business.

(B) This second alternative was longer compared to the other alignments. However, it would go through the major settlements of Illam District and

it avoided the need for major bridges, being aligned along the ridges. It had the advantage of connecting major tea estates in Illam and connecting up with the link road through Pasupati Nagar, a small town adjoining Darjeeling of India. This alignment avoided the Churia mountain range which is known for its abruptness of terrain and landsliding characteristics. This alignment served about 50% of the population of Illam District.

(C) This alignment would run through the middle part of the district. It proposed a new alignment between Itebare and Shantipur and then a connection with the old trading center at Saneschare. This alignment also required a number of bridges and passed through difficult terrain connecting only a few settlements en route.

Among the three alternative alignments, the second was suggested by the engineers. The following considerations were made for the selection of this alternative;

(1) This road would go through the major settlements and provide benefits to a majority of the population. About half of the population of the district would be served by this road.

(2) This alignment did not require major bridges except in one place.

(3) The enthusiasm to construct the road was well demonstrated through the voluntary labor of the local people, and the success of such a road would be possible only when one could avoid heavy costs such as for sophisticated bridges, etc.

(4) The proposed alignment linked the major tea estates in Illam. Through the road construction, the tea estate products would have direct access to the internal as well as international markets. Since the tea estates undertake labor-intensive production, the road would help with the movement of laborers required for these estates at different times.

in the year. Job opportunities would correspondingly be increased for a greater population.

(5) A Government-promoted private undertaking of cardamom production had already started so this commodity needed access to markets and the proposed road would fulfill this purpose. Nepali cardamom had good prospects in international markets.

(6) Since the Zonal headquarters was located at Illam, His Majesty's Government had an interest in having a road connecting this town and the East-West Highway which ran through Jhapa District.

In 1965, the Zonal Assembly passed a resolution agreeing to start construction of the road as suggested by the Engineers of the Roads Department. In February of 1966, they started earthwork for the Surmai - Fical - Itebare - Illam sector of the road and this road will be referred to from now on as the Illam-Charali Road.

Organization of the Work

Construction of the 78 kilometers of road from Illam to Charali was to be undertaken by "Cooperative Committee for the Construction of Linking Road in Mechi Zone" through mobilization of voluntary labor and local resources from the people of Jhapa and Illam Districts. Along the route of the alignment, there were 13 Village Panchayats between Illam Nagar Panchayat and Budhabare Panchayat.²⁶ There were two types of Panchayats: Budhabare Panchayat which could mobilize resources according to the PDLT scheme described in Chapter I, and others which did not have such resources.

²⁶ These Panchayats were: in Jhapa (a) Ghaijan Panchayat (b) Jayapur Panchayat (c) Budhabare Panchayat (d) Shanti Nagar Panchayat and in Illam (e) Irantar (f) Kolbang (g) Fical (h) Itebare (i) Maghe Suntale (j) Godak (k) Laxhmipur (l) Shantipur and (m) Illam Nagar Panchayats.

Thus, Budhabare Panchayat compared to other Village Panchayats along the route was better placed in terms of resource mobilization. The Panchayat initiated earthwork for a motorable track linking the planned road with the East-West Highway. This Panchayat was served by the highway once a link between Budhabare Panchayat and the highway was established. Jayapur Panchayat, the adjoining Panchayat to Budhabare, also followed suit to link Budhabare with the road link through Jayapur. So these two Panchayats quickly started the work to make the track ready for vehicle traffic.

Jhapa District Panchayat and Illam District Panchayat had held meetings with the respective Village Panchayats. These were each assigned work to be done through their Panchayats within their Panchayat boundaries. The Village Panchayats were aided by the District Panchayats with tools like picks, shovels and iron hammers. The Village Panchayats in their Village Assembly meetings decided that the Village Panchayat people would contribute voluntary labor for digging the earth to make a motorable track on their part of the Illem-Charali Road. Keeping in view that wage earners were having to work on the road construction within the Village Panchayat areas, the District Panchayats made available a certain quantity of rice to be distributed to the people who had no other means except daily wage earning. Earthwork started in all Village Panchayats along the alignment route. The enthusiasm of the people was high and they had confidence that the road would come to pass by their efforts. For several years, the effort of digging the road continued.

The District Panchayats remained as the link between the Village Panchayats and with other district level administrative units. They had established a good rapport with the "Cooperative Committee" and Zonal Administration. The Zonal Administration supported a positive attitude

to the mobilization of resources and provided support whenever District Panchayats needed them. The District Panchayats had their members assigned to different sectors of the road to supervise the construction and to mobilize the people in collaboration with Village Panchayats. The District Panchayats established close communication among the Village Panchayats through joint meetings, supervision and inspection visits. The District Panchayats made sure to provide the Village Panchayats with the necessary materials whenever the Village Panchayats needed them.

Limitations of Local Participation

The local people had enough enthusiasm and had a vision of the benefit of the road to them and their villages. But they did not have much except their capacity to contribute voluntary labor to earthwork. They did not have technical knowledge for the construction of the motorable road and they did not have capital resources to mobilize for procuring a bulldozer and other equipment. Their only effective mobilization could be in terms of organized voluntary labor in conformity with the alignment done by the engineers.

Achievements Made by 1972

Before the project was taken over by the Roads Department of HMG in 1972, the following achievements were made by the project:²⁷

1. Budhabare - Kalikolsa - Barne, 5.2 kilometers, 30 feet wide (This was the plains section of the road.)
2. Barne - Sunmai, 4.2 kilometers, 10-16 feet wide. (This section started into the mountain regions so the grading was not appropriate.)

²⁷ Laxhman Prasad Ghimere, Report on the Survey of Jhapa-Ilam Road, (Kathmandu: Department of Roads, 1972) (Typescript in Nepali).

3. Sunmai Khola - Lasune Bhanjyang, 20.7 kilometers, average width 10 feet with 23 bends. (The reason for so many bends was that whenever there were rocks, they avoided them and made a bend in the road).
4. Lasune Bhanjyang - Kanyam, 4.8 kilometers, 12 feet wide (Steep slopes yet no landslides; soil condition was good and this sector did not have a landslide zone).
5. Kanyam - Fical, 7.7 kilometers, 12 feet wide. (This sector of the road ran through the ridge so the soil condition was good and no landslides).
6. Fical - Silpurbhanjyang, 22.3 kilometers, width, 12 feet (Portions of the road were still under construction).
7. Golakharka - Illam, 7 kilometers, width from 12 to 20 feet. (Landslide free zone).

Resources Spent on the Road

The figures on manpower used in the road construction cannot be reported because no record for the man hours spent was kept either by the District Panchayats or by the individual Village Panchayats. However, the local people had worked for over six years on this road.

Records indicated the following material resources were spent on the road construction project between 1966 and 1972.²⁸

Roads Department of HMG:

Value

Cash		Rs. 50,250
Dynamite	200 Sticks	
Detonator	250 Units	
Fuse Wire	250 Feet	

Nepal Food Corporation: Credit given to Cooperative Committee

Rice (Valued at)		Rs. 21,579
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²⁸ Laxham Prasad Ghimero, op. cit.

Rajduwali Bridge, Satar-Rajduwali Approach Road,

Illam Itbare - Fical Road Repair ²⁹	Rs. 1,020,000
Kanyam Tea Estate (Repair of Road between Sunmai and Fical)	Rs. 40,000
Zonal Commissioner	Rs. 88,861
Illam District Panchayat	Rs. 3,000
Cash Contribution of Local People	Rs. 12,593

Thus, by 1972, a total of Rs. 1,246,283 (almost \$100,000) was already invested and Rs. 1 million had been spent in Rajduwali bridge construction... The road was still not motorable.

Interaction with the Central Government

In 1972, during a tour of Eastern Nepal by King Birendra, the people of Illam and Jhapa Districts pleaded with the King that the road constructed so far by the contribution of the local people be given due assistance by the government to make it a workable road. On inspection of the Illam-Jhapa road, the King commanded concerned authorities as follows:

Illam-Jhapa Road being constructed utilizing local labor and materials looks in good condition. This road requires technical examination. Let this road be in this condition for one monsoon and if even after that it remains in good condition, then instead of the alignment worked out by the Road Feasibility Study Team, this road will be taken care of by His Majesty's Government.³⁰

²⁹The resources had been collected by contributions from the Mechi people for the construction of a bridge across the Mechi River linking India and Nepal in the eastern part of Nepal. With the coming of the East-West Highway, this proposed bridge became redundant so the money thus raised was submitted to King Birendra during his tour of Eastern Nepal. He asked the local people to use this money for the improvement of the transport system in Mechi Zone and finally, this money was used for the construction of Rajduwali Bridge which is the main linking bridge between Illam District and Jhapa. The Rajduwali Bridge was completed in 1973.

³⁰Ibid.

Thus, in response to pleas of the local people of the district, this road was brought under the Roads Department of HMG. The King's reference was to a U.N. Road Feasibility Study Team which had contracted with an Italian firm, COLMA, to do a survey of a number of feeder roads to link different parts of Nepal with the national highway system. The COLMA study suggested a road linking Jhapa and Illam along an old but abandoned alignment. The road mileage would be less through this alignment but it would not pass through the major settlements of Illam District. HMG had also tentatively approved this COLMA-proposed alignment and had allocated a budget to start work on this alignment. At the direction of the King, however, work on the COLMA-proposed alignment stopped until the report would do a technical survey of the people-constructed road and assess the further inputs required for completion of the road.

The Roads Department Report identified four problems with the condition of the people-built road:

- (A) There had been frequent realignment of the road by the non-technical people.
- (B) Instead of cutting rocks and difficult parts, they made many bends and unnecessary turns.
- (C) There had been no technical supervision during the construction of the road.
- (D) The objective of the road was limited and they wanted to make it only a "Jeepable" road.

The report positively recommended that this road construction be augmented with technical inputs of machinery to become a viable road linking Illam with Jhapa.

Department of Roads Undertaking

In 1974, the Roads Department undertook to give the finishing technical touches to the road constructed through voluntary efforts of the local

people. In the meantime, HMG cancelled the COLMA-proposed alignment and transferred the budget allocation of Rs. 1,500,000 (\$117,000) to the road for the fiscal year 1973-74.

In the meantime the United Kingdom entered into an agreement with HMG to construct a road linking Dharan with Dhankuta. This would parallel the road to Illam. To provide practical training to the people who would be engaged in building the Dharan-Dhankuta Road, which was to be constructed somewhat later, the United Kingdom Construction Training Unit (RCTU) entered into an agreement with HMG to provide some road construction machinery to the Illam-Charali Road Project. This would take advantage of an opportunity for the RCTU people to get practical training in mountain road construction. The RCTU was to work in collaboration with the engineers deputed by the Roads Department. The cost and number of machines involved is given in Table II. (The machinery brought to the project was used equipment.)

With the undertaking of road construction by the Roads Department, a detailed engineering survey as well as construction of the road started together. According to Mr. Pema Lama, the first engineer deputed to the project, there was an alignment of the road but no detailed study of landslide zones and contours, so the survey and construction had to go together. He felt that road construction was easier because the earth-work along the alignment had already been done through the local people's voluntary labor contributions.

Organizational Problems

In the middle of the road construction, organizational problems cropped up between the Roads Department engineer and the RCTU personnel. At the initial stage, Mr. Weatherall, Chief of RCTU, followed the survey design of the engineer. Mr. Weatherall was not an engineer but he knew how to

drive the bulldozer and road roller. He had been in Nepal for several years and had been the manager in one of the tea estates of Illam, so he felt he knew the place and people.

When the budget for the road construction grew in proportion, politics began to creep into the road construction project. The Chief Engineer of the Roads Department wanted to replace the project chief with a person who would work according to his direction in the matter of financial transactions.

Beyond 34 kilometers from Charali, there was no detailed engineering design for the road construction. Mr. Weatherall took charge of the construction; he drove the bulldozer and cleared the ways as he pleased. No consideration was made to the turns and gradings; neither was there consideration for avoiding possible landslide areas.

The local Panchayats were involved during the construction of the road by the Roads Department in recruiting a labor force, and these laborers would be paid wages by the government. Through a combination of men, machines and road technology, the Illam-Charali road became a reality in early 1977, and vehicular traffic started thereafter.

Excavation of earthwork by the efforts of local people made the machinery movement easier. The engineering estimates indicate that such earthmoving would have cost about 30% of the total cost. If we use the HMG's Roads Department standard for such mountain terrain road construction, at least 1.2 million man-days might have been contributed through local people's participation over a period of six years, 200,000 man-days per year.*

*It is figured that about 890 man-days are needed for constructing 20 meters of mountain road. (See Figure I on next page.) This would mean about 44,500 man-days are required per kilometer. Constructing 78 kilometers of road would come to 3,471,000 man-days, of which people's contribution in the form of voluntary labor for earthwork would come to 1.2 million.

Table II

Capital Investment Cost and Capital Cost, 1976

Equipment*	Quantity Delivered	Operating	Estimated Investment Required for New Equipment (In 1,000s Rs.)	Estimated Interest and Depreciation (Capital) Cost for Project Duration** (In 1,000s Rs.)
Bulldozers	4	4	4 x 541	39
Graders	2	2	2 x 109	4
Rollers	1	1	1 x 223	17
Crushers	1	1	1 x 535	170
Loaders	1	1	1 x 251	99
Dump Trucks	5	2	2 x 124	38
Tractors	2	2	1 x 106	18
Welding Plant	1	1	1 x 106	42
TOTALS	17	14	3,832	472

*Source: Mr. Barun, Assistant Engineer (Site), Illam-Charali Road, 1976.

**Interest and Depreciation cost depend on hourly equipment rental rate, not directly on the new purchase price of the equipment; therefore such cost should be the same for new or old equipment, assuming that the service life of the equipment has not expired.

Factors Contributing to the Road's Viability

The demonstration effects probably played a very important role in instigating the people to mobilize for road construction. They had seen roads in Darjeeling which had similar topography and weather conditions. They saw that life could be easier if they could have a road in their district connecting with the southern district where the East-West Highway would run.

A road was necessary for them to export their products like tea, cardamom, oranges, and potatoes to the southern part of Nepal. In return, a road would help them to import foodstuffs in greater quantity which would generate a feeling of greater security. Moreover, the road would connect many villages along the route, thereby bringing to a larger number of villagers the opportunity of easy movement with certainty.

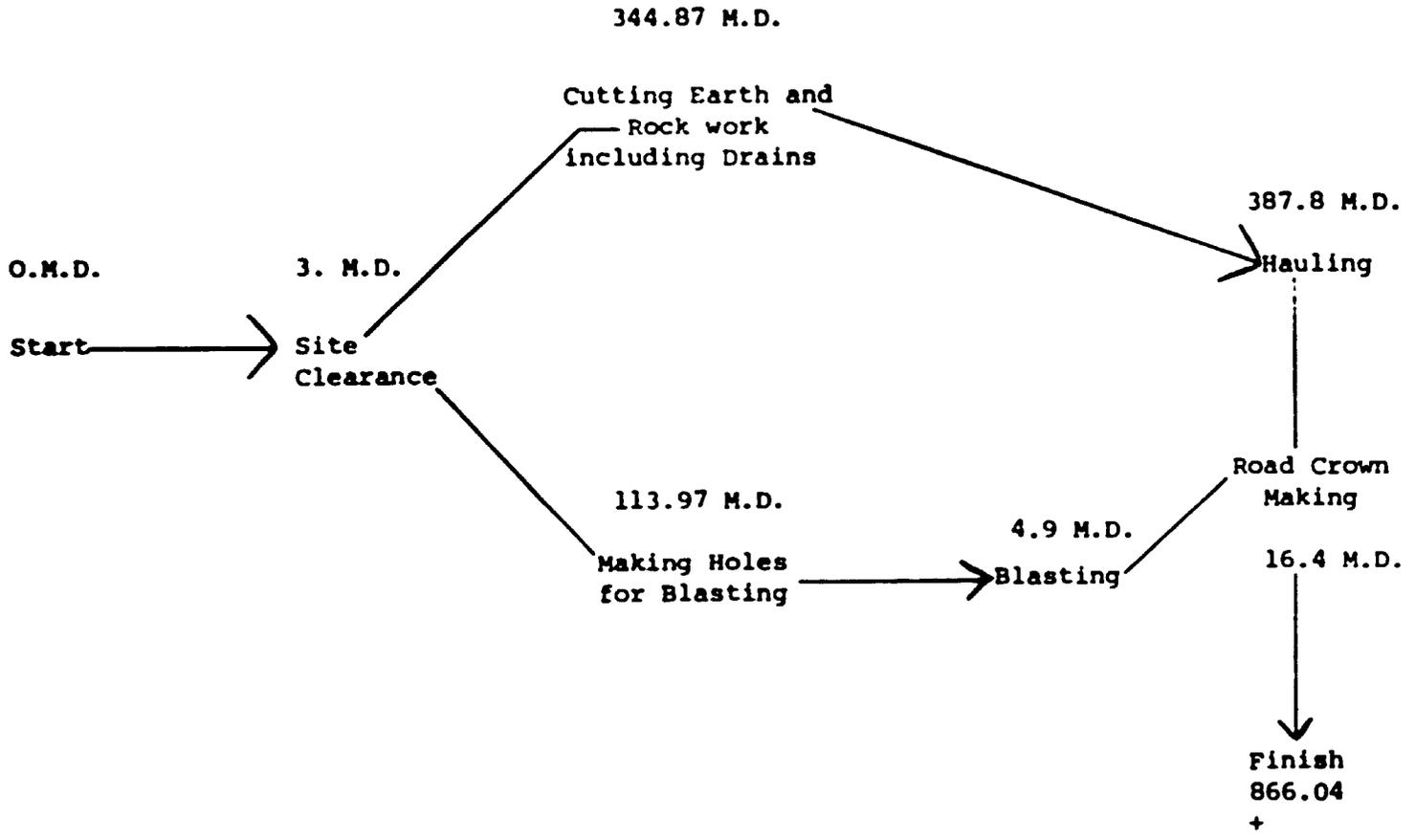
The alignment was made as far as possible along the ridges of the mountain. One of the reasons for selecting such an alignment along the ridges was that it became less expensive because it required less earth-work, and maintenance becomes easier because there is less chance of soil erosion and landslides.

The terrain might have encouraged people to organize themselves for track digging. The terrain has gentle slopes and the Churia range ends at this point (the Churia range is known for loose but rocky mountains). Illam people had the advantage of favorable geographical features, comparatively better economic conditions, and a higher percentage of literacy which seems to have facilitated the people's work for road construction.

Lessons from the Illam-Charali Road

The need for a vehicular transport system was expressed by the people of Mechi Zone. For this reason they decided not to become involved in

Figure I
 Earth and Rock Work Activity Chart (For Mountainous Terrain)
 for 20 m. Stretch of Road



Courtesy: Ramesh N. Vaidya

unnecessary squabbles in deciding the alignment of the road. Rather, they accepted at the outset that the alignment suggested by the technical people after a survey would be an acceptable base for all to contribute voluntary labor for construction of the road. Thus, the alignment suggested by the engineers of the Department of Roads of HMG was adopted by a joint meeting of the Zonal Assembly. The possible conflict that could have arisen from the different interests within the district was resolved at an early stage, and this situation made it more reasonable for local people to contribute their resources without getting involved in bitter conflicts.

They prepared a track with a width between 12 and 20 feet, yet vehicular movement was not possible because of the lack of technical input during the digging of the earth along the route until 1972. On the direction of King Birendra, the Department of Roads did a technical survey and took over construction of the road in 1973-74. The Department of Roads combined technical engineering input along with the machinery required for construction of the road. The road project secured more resources because of the successful effort of the district people to petition the King of Nepal to make further inputs from the technical services of HMG. Of particular importance, the road's classification was upgraded and the road was changed from "jeepable" to "truckable." The road was finally opened for public vehicular traffic in the early part of 1977. That the people of the districts had already invested so many of their own resources in the project surely encouraged the King to make his decision.

Road construction in relation with people's participation needs to be planned and integrated with technical support as this case of the Illam-Charali Road construction project suggests. The value of direct participation by the people reached a serious limitation once it had to go beyond

simple technology to a higher technological level. At this stage, the intervention of the technical department proved useful when the project moved from locally available, simple technology to specialized technology available only through the technical department in the case of Nepal. Thus, sequencing of a project based on people's participation would have a greater chance for success with such inputs than if the project were entirely left to the people. So, the important lesson is that the technical departments in Nepal have to look into a sequence of activities according to the requirements of technology at different stages in order to make the people's participation effective.

The contribution of the local people in the completion of the project is computed to be about 30% of the total cost of the project. In a country like Nepal where many roads are yet to be constructed, lessons from the Illam-Charali Road could be derived in actively enlisting the people's participation to reduce the cost of such projects. Such projects could also achieve a tremendous sense of fulfillment among the people.

The success of people's participation in this project is the beginning for more activities in this area. The government could plan further social and economic policies on the basis of the successfully completed project using people's participation. The people in such an area would be more capable of demanding and utilizing more services from the government than in other areas where projects on the basis of people's participation had not experienced success.

CHAPTER IV

THE NATIONAL DEVELOPMENT SERVICE: AN APPROACH TO RURAL INFRASTRUCTURE

DEVELOPMENT THROUGH LOCAL RESOURCE MOBILIZATION

The purpose of this chapter is to investigate the National Development Service (NDS) as a means of mobilizing rural local resources -- voluntary labor as well as materials -- for the building of rural infrastructure like school buildings, small irrigation projects, trail improvements, etc. This study also focuses on the attempt of NDS participants to make the villagers feel a need for their efforts. The participants also played important roles in the rural setting by making the local administration more responsive to the needs of the local people, playing the role of liaison between the local people and local administration.

Origin of the Program

The idea of a National Development Service was conceived in the 1960s by Nepalese educators planning for a New Education System for higher education and their concept of NDS received encouragement and support from King Birendra while he was still Crown Prince. With the introduction of the New Education Plan in July, 1973, a year of service in rural areas under the National Development Service of Tribhuvan University was made mandatory for all master level students. Of this period, ten months are spent in the field after two preliminary months set aside for orientation and training.³¹

³¹The Tribhuvan University Act was amended in the first part of 1979 making NDS work optional for students. This change was made necessary by political events in May, 1979 after which the government felt that having students at the village level could be explosive for political reasons.

The main purposes of the NDS are: first, to expose the students to non-academic realities while providing them with an opportunity to apply their academic training to practical problems; second, to develop a "service concept" among the students, i.e., a sense of accountability and responsibility towards the country; and third, to have some direct input of NDS participants in local development projects. Further, the university believed that upon completion of a year of service in the field, participants would be able to provide feedback in the development of the entire academic community. In this regard, the NDS participants are seen as a positive force helping the university administration to determine what changes should be introduced in the areas of teaching and curriculum. While in the field, the participants gain close acquaintance with the processes and problems of development through their participation in the microcosm of a rural community.

Nepal, though small in size, has a greater ethnic diversity than most countries in the world. Sensitivity to and understanding of the various socio-cultural systems and people are of utmost importance to the leaders and decision-makers of Nepal. A year of service with the NDS will take students away from their own socio-cultural confines and familiarize them with the outer limits of the national socio-cultural life. As the future leaders of the nation, it is believed that every NDS participant will learn to appreciate the heterogeneity of the country as well as the economic status and problems of rural areas.

With the political change in 1951, educational facilities in Nepal expanded tremendously, and liberal education got maximum support and contributions from the people. This resulted in a situation of having educated unemployment in urban areas whereas the rural areas did not

have any educated people. In 1964-65, the Ministry of Education initiated a program call "Nepal Darshan" (Know Nepal Program) for college students with a view to exposing them to the rural life of Nepal. Under this program, the students would go to a village in groups of ten to twenty and do a survey of village needs and get acquainted with rural life, staying there for about a month. The program gave the students knowledge about the intensity of rural problems, but they were not involved in the implementation of projects relating to the improvement of rural life. The new approach of the NDS Program was intended to make it more functional and useful to both the villagers and NDS participants.

The university students were to be trained to work, as part of their academic program, as rural development workers with the objective of helping villagers in the areas of health, agriculture, education and construction. Though provided with some rudimentary training in basic rural extension work, they were primarily assigned the responsibility of teaching in rural schools. Thus, their deployment in the villages was to offset the shortage of school teachers caused by the expanded number of schools in rural areas.

Preparation of Students before their Going to the Villages

NDS participants are required to complete a compulsory orientation program organized by the NDS office of Tribhuvan University in collaboration with different ministries of HMG. They are given theoretical as well as practical training in four main areas: (a) health; (b) education; (c) agriculture; and (d) construction. In addition, they are provided with manuals, for example, on reforestation, pit latrine construction, nutrition, education, fish farming, bridge construction, trail repair etc.

The objective of the NDS training program are to enable them to:

- (1) Teach in the classroom;
- (2) Give suggestions to the villagers on agricultural improvements;
- (3) Help the villagers in simple construction work, like irrigation, bridges, school buildings, etc;
- (4) Contribute towards health improvements in the village by participating in public health activities like sanitation, family planning programs; and
- (5) Help the villagers in the task of preserving forests.

The NDS participants also participate in consultation with villagers to identify village needs and to enlist the villagers' cooperation to mobilize local resources such as materials and voluntary labor to construct infrastructure according to the needs expressed by the villagers.

HMG regarded the NDS program as an effective vehicle to communicate its development program to the villagers. Therefore, NDS participants also worked as communicators of the government program to the remote villages of Nepal. The forest program of Nepal is an important priority in the economy, so the training relating to forestry was given more attention as the program progressed.

During the training period, participants are given training as "Scouts" including cooking, group activities, cultural activities, first aid and self-survival techniques in the isolated villages. While in the village, they are to impart training in "Scout" methods to the students of the village school. NDS participants have found that this "Scout" training has been useful to develop contact with the village community through the cultural program, first aid assistance, and group activities.

Placement in the Villages

The participants' workplace in the village is the school, so the Education Ministry must first work out its requirement for teachers in villages of Nepal, and a request is then sent to the Directorate of NDS. In order to avoid conflicts resulting from placement in a "good" village or a "bad" village, impartial placement was secured through a "lottery." The participants, during the training program, would draw from the lottery and would know their placement in a district beforehand so they could orient themselves to the condition and problems of the district they were to work in for ten months. The NDS Program covered 71 out of the 75 administrative districts of Nepal. It should be noted that female participants were placed only along roads or highways where they could have contact with district headquarters or Kathmandu easily, whereas male participants have preferred to go to the more difficult places and more remote villages.

In the remote villages, villagers are often more receptive and cooperative. It seems to be easier to organize programs in such places because people there are inclined to work for any kind of improvements. In villages closer to the district headquarters, it often seems difficult to get the cooperation of the people. NDS participants could be considered as a threat to the status quo, and village leaders may feel that NDS participants challenge the accepted traditional leadership by introducing new programs in the village. It has proven to be the case that despite the hardships of living in the villages, many NDS participants would like to go back and see how their projects had been progressing in the village, and many have extended their stays in the villages they worked in.

Life Style

While participants lived in villages they had to lead a simple life. They received a monthly allowance of Rs. 300 (\$24) with a fifty percent supplement added for participants' going to districts classified as "remote." Besides monthly allowances, they were provided Rs. 500 (\$40) for establishment and round trip costs. Generally, participants going to the remote districts were taken in by plane which was cheaper than having them trek for days to the villages. Participants lodged in a villager's house and bought food and other necessities out of their monthly allowances. They were instructed to wear a certain kind of clothing which was regarded as the "NDS uniform." Attempts were made to have their life styles compare with those of the villagers so that the participants would be more readily accepted by the villagers.

Entry into the Village Community

Working in the "village school," NDS participants became involved with all different groups in the village since children of all groups receive educations from the "village school." NDS participants by their association in the village school would reinforce community contact. Oftentimes, students of the "village school" could be used as a communication link to the parents or guardians, and the message of the program could get across to the villagers through the school children. The teacher has an honorable position in the village, and teachers often function as a "change agent" in the villages. Many instances were recorded where the program for latrines, kitchen gardens and sanitation activities for individual families was undertaken with success using school children as a pressure group for the older generation of the village.

Another point of community contact in order to win the confidence of the villagers was the medical kit (first aid kit) which the students maintain at their workplaces. Medical services are not available in all parts of Nepal so most of the people in the villages have to depend on local healers like Dhami, Jhankris, etc. They do psychological treatment more than treatment of diseases. Of course, NDS participants can not treat complicated diseases but they can help the villagers to relieve some of their discomforts like headaches caused by cold, sore throats, indigestion, cuts, boils, etc. They are given manuals with descriptions of the symptoms of diseases and the medicines to be used. The medicines they distribute to the villagers are free. Participants feel that the "medical kit" is of great help to them in winning the sympathy of the villagers.

The provision for selfless service by participants presents a startling picture to the villagers. Their life styles contrast greatly with those of local administrators. In the eyes of villagers, it is quite unusual for educated people from Kathmandu to work from dawn to dusk with the villagers selflessly without aiming at profit or benefit from them. The villagers ask themselves why the participants work so hard for such things as constructing school facilities which they are going to leave behind when they return home. Such selflessness and not imposing a burden on the village economy were attractive features of the participants' activity to the whole village. The image of local administrators in villagers' eyes was that of the "Hakim" officers who came to the village. The villagers had to provide them with free food, portorage and other services. He made many promises but hardly any were fulfilled. On the other hand, NDS participants, in consultation with villagers, decided on projects, worked with them and got them completed.

Styles of Resource Mobilization in Villages

Participants were to go to the villages with an open mind, though, they should have thought of possibilities for several projects that could be undertaken in the villages. They are to participate in the meetings of the school, Village Panchayats, and local leaders of the village, making appropriate proposals for projects to be undertaken for the benefit of the villagers. They would discuss projects such as school buildings, small bridge construction, repair of irrigation channels or the improvement of the main trail in the village. Besides, such public works projects, they would get involved in other social welfare projects as well such as educating the villagers on the utility of a "family planning program," girls education, the discouragement of gambling and alcohol, reforestation programs etc.

Once the project was approved by the villagers, they would work out the work and cost estimates for the project and calculate the resources to be shared by the villagers in the form of voluntary labor and material contributions. A committee for project supervision was formed where NDS participants play major roles in collaboration with the local leaders and with colleagues of the school. They do not have allocated funds or resources for the projects; they have to work these out by themselves while they are in the villages. They are to look for the resources within the villages, setting targets for resource mobilization. They might visit house-to-house to collect contributions or they might wait until some festival, especially "Tihar." During this festival, people in groups sing songs and visit houses in the village. By custom, they have to be given food, money or anything that can be afforded. This occasion could be used by participants to communicate the importance of the proposed project to the village and to ask for substantial contributions

for the project. Because of the competition for prestige within the village, most would like to contribute a little more than their peers within the village. This season is at harvest time, so they have something to spare.

Once the project is started, voluntary labor can be mobilized. In the case of timber required for school construction, NDS participants would arrange for a permit from the local forest unit. Local people would contribute voluntary labor to go to the forest, cut the trees and gather the necessary materials for the building construction and transport them to the construction site.

The participants are informed persons who know about the government's program for rural development activities. The villagers have had difficulty obtaining resources from the district administration for local development activities because of a lack of information about the future activities of the government. The participants can communicate with the local authorities to get resources contributed to the proposed project in the village where they work. They can convince UNICEF agents, for example, to contribute things like roofing materials for village school or can approach the project for drinking water and get polyethylene pipes for the project. Sometimes, they can draw support from the central government for rural development programs through their connections and relatives in the central government. The classification of resource mobilization is given in Table III (see p. 69).

The table indicates the difference between resource mobilization patterns in villages close to urban areas and rural villages. It reveals that while help from schools is the primary source of resources in villages close to urban areas, voluntary labor is the first major source of resources in the villages.

Table III

CLASSIFICATION OF RESOURCE MOBILIZATION

Sources \ Area	<u>Non-Urban</u>		<u>Rural</u>	
	Present Participants	Ex-Participants	Present Participants	Ex-Participants
Voluntary Labor	30.08	27.73	32.67	30.22
Selling Lotteries	9.24	-	7.37	4.31
Village Panchayat Grant	4.65	-	3.37	3.94
District Panchayat Grant	-	-	6.23	4.14
HMG Grant	7.43	-	5.48	3.18
Collection of Misappropriated Funds	-	-	1.12	2.45
Personal Contributions	5.07	-	7.37	9.93
Donation from Villages	18.54	27.73	19.32	18.01
Help from School	18.96	44.54	13.47	18.20
Others	6.84	-	3.61	5.63

Source: Impact Study of NDS Program in Nepal (Kathmandu: CEDA, 1978) p. 228.

Responses of Local Administrators to Village Needs

The NDS participants have played an important role in generating demands from the villagers for the fulfillment of their needs. With their knowledge of government programs, they can press the local administration to get such services to the people which otherwise would not be given attention by the local administration. They can talk with the same sophistication and language with the local administration to draw their attention to village problems, and can shoulder responsibility for undertaking projects, provided that matching help was forthcoming from the local administration. On many occasions, they worked as the link between the local administration and village people and became the spokesmen for the village people.

In the course of interviews with local administrators concerning the impact of the NDS program, the local administration people expressed the view that the NDS participants had helped the villagers to place demands with the local administration. Some of them felt it was a nuisance because they had to give immediate attention to so many demands of the villagers. These, otherwise, would not have been heeded except as a kind of favor given by the local administration to get support in return from some of the village leaders.

NDS volunteers can now compel agriculture officials to come to the village, or ask the overseer of the District Office to help them in designing a school building, or health people to come to the village and provide immunizations for the children. Thus, the pressure of NDS students has changed, to some extent, the nature of local administration. The local administration, in the absence of a strong pressure group from the village, will behave like the supplier of services without any consideration for the demand. The supply of services would be at the

convenience of the local administration. Once demand started to build up among the villagers, the administration had to gear supply more to demand. Hence, the local administration was forced to a certain extent, to be responsive to the demands of the villagers. One of the outstanding achievements of the NDS program therefore, was to increase the capability of the villagers to make demands and thereby to make them more conscious of what they could expect from the local administration in relation to their rural life.

Attitudes of Villagers towards NDS

The attitude of villagers where the NDS program has been launched was surveyed with 370 villagers interviewed in 37 villages. The result of the survey is given in Table IV.

The largest number of villagers expressing reasons for liking to continue the NDS program, 27 percent said they felt that NDS participants had been effective in disseminating various kinds of new information to them. An additional 14 percent of the villagers favored the NDS program's being continued because they felt that the participants tended to impart new ideas to the villagers. Likewise, 13 percent were in favor of the program because most of the activities undertaken by participants had responded appropriately to the village needs, while 9 percent felt that NDS participants could understand the priority of the villagers' needs. 10 percent appreciated the voluntary spirit of the participants. Similarly, 7 percent and 3 percent supported the NDS program because participants were cooperative or got activities completed on time. The combination of diverse roles played by NDS participants, like those of doctor, engineer, social reformer, teacher and leader, made them able to communicate various kinds of information at one time. Such a position for NDS participants made it easier for them to mobilize local resources from

Table IV

POSITIVE ATTITUDES OF VILLAGERS TOWARDS NDS PARTICIPANTS:
REASONS FOR FAVORING CONTINUATION OF THE PROGRAM

Regions Statements	Central	Western	Far Western	Total
1. Because they always disseminate information to the villagers.	32%	25%	30%	28%
2. Because they tend to impart new ideas to the villagers.	8	21	9	14
3. Because their activities are appropriate to village needs	6	15	15	13
4. Because they tend to understand the village problems more.	6	11	7	9
5. Because they serve as volunteers.	8	8	14	10
6. Because they tend to be more cooperative.	9	7	7	7
7. Because they tend to be more sociable.	1	1	1	1
8. Because they could take up programs in a timely and effective manner.	3	3	4	3
9. Others.	27	9	14	14

Source: Impact Study of NDS Program in Nepal (Kathmandu: CEDA, 1978).

the villages for village development activities.

An Estimate of Cost/Benefit of the NDS Program

An attempt is made here to assess the cost of the operation of the NDS program against the benefits it has helped to achieve through the mobilization of resources both financial and voluntary labor. The objective of this attempt is to arrive at a rough computation of a cost/benefit ratio for the program. Since the whole program involves many behavioral changes that have occurred in the NDS participants, in the villagers and in the local administrators, quantification of all social benefits is not possible at this juncture. The cost/benefit of the NDS program has been projected here only in terms of the cash and labor mobilized in the construction sector, excluding education, health and agriculture sectors which also have noticeable impact on village life.

Table V

Per Student Cost in NDS Program.

Fiscal Year	Per Student Cost
1974-75	8,019
1975-76	7,232
1976-77	9,248
1977-78	8,951
Average	8,360

Source: Impact of National Development Service
(Kathmandu: CEDA, 1978) p. 270-7.

In the same way, an assessment of the resources mobilized by the participants who have served in the NDS program has been computed (based on a sample of the population affected). Appendix 1 shows an estimate of the resources mobilized by the participants during their stays in the villages. A total of Rs. 1,541,906 (\$120,000) appears to have been

mobilized by 133 (sample population) participants, or Rs. 11,550 (\$900) per participant. A further breakdown of the resources mobilized shows that of the total amount, voluntary labor amounted to Rs. 986,219, or 64 percent (See Table VI).

TABLE VI
RESOURCES MOBILIZED THROUGH NDS VOLUNTEERS

No. of Districts	No. of Villages	No. of Participants	Voluntary labor mobilized. (Converted into cash value)	Cash Mobilized	Total
21	41	133	Rs. 986,219	Rs. 557,687	1,543,906

Hence, the ratio of benefit generated per student to the cost per student measured even in the crudest form yields an estimate of 1.38:1.00. This is to say that the benefits resulting from the program are 38 percent more than the expenditure made.

Findings of the Study

(A) The NDS program, initiated by the Tribhuvan University as a part of its academic program, has been able to a great extent, to introduce innovations in the rural life of Nepal. The deployment of a larger number of educated youths in the rural environment of Nepal itself is a noble feature in rural development efforts as well as in making higher education in Nepal more innovative in order to bridge the gap between the educated elites and the rural masses. The presence of students for ten months in a village and their efforts in collaboration with villagers to bring changes in the life of the village is phenomenal. The cooperation given by the villagers is also equally important in order to make the projects of the NDS participants successful.

(B) A survey in 37 villages where NDS participants had worked indicated that they could construct many village school buildings and other rural infrastructures basically from the resources mobilized within the village community. Thus, the NDS participants could construct "public goods and services" which otherwise would have been ignored by the central government. The present study is confined only to the physical infrastructure building activities. However, NDS participants' activities in other fields like in literacy campaigns, health education, and agriculture programs were also equally important. But, the impact of such social programs is difficult to evaluate immediately. The acceptance of NDS participants in the rural community is itself a testimony of the effectiveness of the program. A future well-planned NDS program might be able to bring still greater impact in the rural development efforts of the government of Nepal.

(C) One of the most often complained about features of rural development activities in Nepal is that due to the lack of resources, rural development programs could not be intensified in a meaningful way throughout the country. Nevertheless, the efforts of the NDS program prove that substantial resources for rural infrastructure could be mobilized from within the community. The basic question is how one goes about proposing a program to enlist the support of the community. This study indicates that significant resources were mobilized, and the ratio of benefit generated to cost per student measured even in the crudent form was 1.38:1.00. This multiplier effect comes from within the community. Resource mobilization within the village community for village infrastructure development is possible provided the village community as a whole is involved in the initiation, implementation and the use of infrastructure thus created. The resources in the rural

community were basically obtained in the form of voluntary labor and material resources.

(D) An important feature of the NDS program is that the participants are fully dependent upon the voluntary cooperation of the villagers. They have no means of compulsion and no authority. The projection of selfless service by the NDS participants has helped to mobilize the cooperation and confidence of the villagers. The presence of NDS participants in the village is entirely different from the images created by government employees in the village. The government employees come to the village with a program and authority to carry it on irrespective of the needs of the villagers. The implementors of government-initiated program have felt that they did not require much of the villagers' participation and cooperation. But such programs often become dysfunctional whereas the NDS participants do not have determined programs for the villagers and they have to work out programs in consultation with the villagers. Their presence in the village is no threat to the villagers. The participatory feature of program identification and implementation makes the NDS approach more successful with the villagers' cooperation and resources.

(E) Besides mobilizing resources in the village, NDS participants were successful to a greater extent in attracting the attention of the local administration in order to obtain more services for the villagers. The NDS participants know the availability of several programs relating to rural development which can be undertaken by the government. However, these programs usually do not reach the notice of the village people. In this situation, the NDS participants work on behalf of the villagers as spokesmen for the village people in order to bring more programs to the village community. These volunteers can speak with the same articulation

as the local administrators and can communicate well with the local people about the availability of several government programs intended for the village people. Thus, the NDS participants, to a greater extent, have been successful in helping to generate demands by the villagers to the local administration. This phenomenon has made the local administration more responsive to the demands of the villagers.

CHAPTER V

OVERVIEW AND CONCLUSIONS

After the 1951 political change, local communities became involved in building physical infrastructure in larger numbers like school buildings, small bridges, minor irrigation systems, feeder roads, etc. Some of these projects were undertaken only with community resources and skill, while other projects had government resource support but were managed by the local people themselves. The cases presented in the previous three chapters were selected in order to analyze some dynamics of people's participation in physical infrastructure development. These cases are of successful projects and it is worth analyzing the process of project implementation for physical infrastructure, thereby providing a basis for future community-based public works activities in rural Nepal.

Organization Patterns in the Three Cases

In all three cases, statutory local organizations, Panchayats and District Panchayats, played a role in identifying the needs and working out ways of implementing the projects. In the case of the Banglung Suspended Bridge Project, the District Panchayat collected the inventory of bridges required for the district as a whole, and worked out the list in terms of district-wide priorities. The National Panchayat member from the district took the initiative to get government support for the materials required for the proposed bridge projects.

The Mechi Zonal Assembly expressed the need for a road that would connect the Illam District headquarters with the East-West Highway, and later on the "Illam-Charali Road Project" developed in response to the need expressed by the Zonal Assembly.

The National Development Service participants used the local Panchayats and village schools as the vehicle for their mobilization of resources for the construction of school buildings and other infrastructure within villages. The local statutory organizations were mobilized to get formalization of the needs expressed by the local people.

Although identification of needs was expressed through the local organizations in all these cases, the implementation of the projects took different organizational forms, gaining a wider cross-section of involvement. In the Banglung case, instead of implementing the project through the District Panchayat, a special pilot project committee was formed consisting of members from different walks of life in the district. The committee supervised the projects and looked after them to make sure of completion of the bridges in all villages. At the village level, special committees were formed composed of a larger cross-section of people to implement the project. In some instances, the Village Panchayat Chief was the leader of the project, whereas in other cases, the local "social worker" took the lead in implementing the project. organizational flexibility provided an opportunity to involve different sections of the population beyond the membership of the statutory local units. This helped to generate initiative at the project site and it encouraged people to decide by themselves in selecting different alternatives suitable to the local

situation. The committee at the district level was concerned with achievement of the targets and the providing of the materials required for the project. The scheduling of implementation work was the responsibility of the local people. Such flexibility in the organizational pattern helped to enlist the support of the community as a whole at the implementation stage.

The Illam-Charali Road stretching 78 kilometers involved 13 Village Panchayats along the route of the road alignment. The road project also had an extra-statutory body, the "Mechi Zone Road Construction Cooperation Committee," consisting of members of the local statutory bodies as well as members of the social and business community in the area. The purpose of such an extra-statutory body was to seek cooperation from a larger group of people. However, implementation of the project was taken care of by the local Panchayats in the form of mobilizing voluntary labor from the people of the Panchayats.

In both cases, the districts had a rough district level plan for the projects that they wanted to implement. The promulgation of the project plan gave the people an idea about how the project would affect them. The people involved in the contribution of voluntary labor and other resources were from the project area. Therefore, the expected visible impact of the project drew the participation of the people and their initiative to complete it.

In contrast to the ineffectiveness of several of the government-initiated rural development programs as outlined in Chapter 1, the cases presented here are examples of the successful implementation of the projects. Government-initiated rural development programs have adopted mostly bureaucratic approaches to reach the rural population.

They have been characterized by top-down communication patterns, imposition of authority, and lack of involvement of target groups in the initiation and implementation of the programs. The target group was not sure of what the program outcome would be, so the involvement of the people for whom the program was meant was almost non-existent which resulted in the failure in fulfilling the program objectives.

The organizational patterns of the cases presented here clearly support the view that the participatory characteristic (involving the people in the decision-making for the program and implementation of the program) makes the local organizations effective in fulfilling the objectives.¹² Specially, ad hoc organizations for rural public works, involving a cross-section of the population in initiation and implementation of the projects, has proven effective. Thus, the government program for rural development in Nepal needs to give serious attention to revise the organizational patterns, and a deliberate effort should be made to create participatory organizations at the grass roots level.

The Process of Resource Acquisition

The greater the voice to articulate demands, the larger is the response of the government in meeting demands. In these cases, an understanding of the environment of the locality produce impetus to formulation of projects that evoked support by the people of the area. The feeder road through the more populated area of the district gave the local population an awareness of how the road could make their lives easier. Such expressions of need were influenced by observing similar development in adjoining districts of India where people had the privilege

¹² See Allen Jedlicka, Organization for Rural Development: Risk Taking and Appropriate Technology (New York: Praeger, 1977)

of traveling by road. The Banglung project suggests that the local people could construct bridges by themselves if materials were available. They know what bridges can do to improve their local economies and quality of life. The NDS participants made the local villagers aware of the need for a school building which often becomes a symbol of prestige for the village. Such a project has a direct impact on the community because the school, as community property, would be shared by both rich and poor members of the community.

Mobilization of support for projects which comes from beyond the boundary of the village or district is also important in order to get the continued participation of people in project implementation. In the projects studied, local leaders were able to elicit support from outside their area. After the initial stage of earthwork for the Illam-Charali Road construction, the project went nowhere and had difficulty in making the road a functional one. Local leaders had the opportunity to present the case to the King of Nepal during his tour of the district. In recognizing the contribution made by the local people of constructing the basic roadway to link the district with the East-West Highway, the King gave an order to the Roads Department to investigate the situation technically and use the contribution of the local people. The opportunity for the district leaders to present the case made the road possible.

In the Banglung suspended bridge project, the project was made possible by the linkage developed by a district representative to the National Panchayat with the then vice-chairman of the National Planning Commission, resulting in the recommendation that the local development department support the Banglung suspended bridge project with materials. In the case of the NDS participants as well, materials for drinking water

projects, roofing for the school buildings, etc. were secured through the linkage developed with different agencies of the government. Such performances remain a matter of special effort, not something institutionalized.

The Process of Demand Generation

The extensions of the government agencies to the district and the villages are numerous. They are the suppliers of services required for rural development. However, their supply of services is monopolistic and they supply services when they feel like supplying them and stop supplying services at their whim. Getting services will provided by these agencies depends on an appropriate demand-and-supply mechanism. The more vocal a rural community becomes in demanding services, the steadier becomes the supply of services. The NDS program indicates that the program helped the villages to generate a demand for more services from the government agencies. Many of the field agencies of the government started to respond to the demands of the villagers. In a situation like Nepal, NDS participants proved to be useful for creating awareness among the villagers. By virtue of the NDS participants' being non-members of the traditional village elite, the selection of their projects would be more community based.

The local people's vision of the project becomes important for their participation. If the project is conceived by the local people as benefiting them and the community, support for the project will be forthcoming. If the project has limited scope, helping only a small section of the population, involvement in and support for the project becomes negligible. The cases presented in this study are projects

representing a benefit to larger sections of the community population.

John Thomas, in analyzing different dimensions of public works activities, cautioned that public works activities might only serve to reinforce the power and wealth of the local elite and this, in turn would maintain exploitation of the people on the village level. If the central government takes up public works activities to buy the support of the local leaders, those activities have a negative impact.³³ Thus, when planning public works activities in rural areas, one has to think of the end product of the activity, institutional linkages and the mode of resource mobilization.

Central Government Intervention and Local People's Participation

The participation of the central government at different levels can be observed from two case studies. In the Illam-Charali Road Project, the Roads Department helped the project to do the feasibility study and the technical alignment of the road. The local people did not have this technology, and project people were aware of the waste of resources if the alignment would be technically wrong. Thus, the alignment work was done by engineers of the Roads Department. Once the alignment was complete, the responsibility for earthwork was taken over by the local Panchayats, and the roads Department supported them during the initial stage with the supplying of blasting materials.

Once the earthwork was complete, constructing the road itself required higher technological input. The local people did not have the experience of constructing a functional motorable road because it requires a greater knowledge of vehicle movement, speed, and gradings. In the

³³ John W. Thomas, Employment Creating Public Works Programs: Observation on Political and Social Dimensions (Cambridge: Harvard University, 1973), (Mimeo), pp. 16-30.

second phase, the government moved to help the project with technical manpower and machinery. This indicates how the local people's contribution of voluntary labor can be mixed with the timely intervention of technical inputs which are available from the central government in order to make the people's participation more meaningful.

In the case of Banglung, the technology of bridge construction was available among the local people. They acquired this technology through their association with iron mining and stone quarrying. In fact, they had long experience with constructing suspended bridges by themselves. Hence, the intervention of the government in the Banglung Suspended Bridge was only in supplying the materials like cables and iron fittings for the project. The availability of local technology within the community made government intervention less and this, in turn, increased the people's participation in project implementation.

NDS participants were exposed to some technical learning on bridge construction, trail construction, minor irrigation construction and building construction during their orientation program and prior to their departures for the villages. The amount of resources mobilized and the number of school buildings constructed on their initiative indicate that they could enlist the cooperation of the villagers because they relied on local technology in building construction with only some improved technology here and there. Mobilization of local participation would be easier if the technological component of the project is more common to the local people.

These cases indicate that the more common the technology, the greater will be the people's participation in implementation. The greater the sophistication of technology, the less is the participation of people

and local initiative. The cases suggest further that the participation of people in implementation of the project is limited by the level of their technological capability, so the introduction of new technology in the rural area requires systematic planning and preparation by the government.

Resource Mobilization through People's Participation

The major resources of Nepal are land and man. Here, discussion is aimed at voluntary human resource mobilization. Some economic analysis of voluntary labor mobilization would characterize this approach as anti-development, saying such voluntary labor mobilization deprives people of the economic value of their labor, and thereby stagnating the process of development. Such an argument insists that people be paid for their work; otherwise it is said to be exploitation and against development objectives. However, the relevance of voluntary labor mobilization depends on the nature of project selection. In the case of road construction, bridge construction and school building, the impact of benefit should be more or less evenly distributed. Projects should not be taken as the end in themselves; rather the completion of such projects should be complemented with other activities. In Nepal, rural infrastructure development at low cost with local technology, local materials and voluntary labor has to be taken as the main process for increasing capital facilities in Nepalese villages. The basic question is whether or not the villagers have resources to spare. Apparently so, because the resources mobilized in road construction projects, in suspended bridge projects and in the RLS Program have been tremendous.

The more the rural people have a chance to make decisions by themselves, the greater becomes their willingness to contribute materials

and human resources. This condition can be seen in all three cases. The tradition of mobilization of voluntary labor is embedded in the Nepalese culture. On the farm, people help each other to work their farms and they share labor. The tradition of labor sharing has extended from individual farms to community projects. This cultural trait has a role to play in mobilizing voluntary labor. Besides, the religious feeling that one can earn merit after death if he contributes his or her wealth and labor has played an important role in generating willingness in the people to contribute labor.

Another important factor influencing the willingness to contribute voluntary labor or material resources in the rural setting is contributors' feelings that their resources would be properly used to match their needs. The NDS participants could mobilize resources because of their image in the rural setting as people selflessly helping rural development activities. When the NDS participants request voluntary labor or resources in the village, these resources are made available because the villagers feel that once such infrastructure is completed, it will help the village. The image of selfless service by NDS participants helps motivate villagers to mobilize resources. Also where the outside resources are provided mostly in kind, rather than in cash, as in Banglung it appears there is more confidence that resources will not be this used for personal enrichment and people are more willing to make their own contributions.

The Banglung Suspended Bridge Project generated the feeling among the villagers that they could build the bridges by themselves which would remain as community property and fulfill the need of helping villagers avoid the hazardous fording of the river during the monsoon.

The matching of an action proposal to an immediate need of the villagers prompted them to contribute voluntary labor as well as material resources.

In the Nepalese village setting, the timing and mode of resource mobilization should be left to the local people. They would be willing to contribute voluntary labor during the slack agriculture season. The importance of local decisions in timing and mode of resource mobilization was demonstrated in the Banglung Suspended Bridge Project.

Investment Strategy

The amount of rural infrastructure development needed in rural Nepal is immense. The central government alone will not be able to fulfill all these requirements unless the local people participate in these efforts. We can look at it this way. Per capita income in Nepal at present is only \$110. With an economic growth rate of 5 percent annually (2.8 percent per capita), it would still take 25 years to double -- to \$220 per capita. At such a level, the aggregate resources available to provide for infrastructure development in the rural areas would be very limited. The government's resources are only a small fraction of national income, about 5 percent in 1977 (\$6 per capita). Institutionally calculated savings were only about 5 percent in 1977, while the gross domestic investment was 10 percent, indicating a "gap" of 5 percent filled essentially by foreign resources. The formal institutional system has not had and is not likely to develop in the foreseeable future enough financial capacity to deal adequately with the infrastructural aspects of rural development in Nepal. Expensive infrastructure projects started with foreign aid programs can reach only a small section of the population in rural Nepal. Rethinking of the means of investment in rural infrastructure is thus necessary among Nepalese planners and policy makers.

In getting the initiative of the people to participate in infrastructure building, the Ministry of Transport and Public Works and the Local Development Department have to revise its approach toward rural public works. The Ministry's present approach is based on a system of awarding contracts which ignores the people's involvement. It should give thought to matching local needs and initiative with some appropriate technological input to local infrastructure development. Likewise, the Local Development Department has to change its role of providing only a subsidy; rather, it must develop an inventory of appropriate technological inputs which it can make available to different communities and then help them by giving both material supplies and technological inputs which could be easily adopted by the rural community.

John P. Lewis argues that the developing countries have to mobilize resources from scattered localized centers throughout the country. In aggregate, such activity becomes so massive that the attempt to administer it closely from the center would be out of the question, and a decentralized form of implementation is necessary where local initiatives and local resources are to be mobilized. He suggests that

"... as to localized public works, it seems to me that project choice and implementation usually can safely be left to the local authorities provided that they (a) have institutional access to levels of planning and technical competence, that it should be feasible to sustain at all local levels; (b) are required to contribute some of their own resources to the anti-poverty public works program; (c) are held responsible to acceptable operating standards."³⁴

³⁴ John P. Lewis, "The Public Works Approach to Low End Poverty Problems: The New Potentialities of an Old Answer," Journal of Development, New York, No. 5, 1972 and "Designing the Public Works Mode of Anti-poverty Policy" in Charles R. Frank and Richard C. Webb (eds.), Economic Distribution and Growth in the Less Developed Countries, (Washington, D.C.; The Brookings Institute, 1977) pp. 337-379.

The case studies indicate that resources at the local level can be mobilized. The basic problem as the cases indicate is not the mobilization of resources but the appropriate use of these resources with the appropriate mixture of technology (not always the simplest as seen in our road construction case). This approach requires evolving an organizational set-up at the grass roots level capable of making decisions in response to the needs of the local people to implement their infrastructure projects at the local level.

In a similar program of irrigation works in the Philippines, three propositions which were demonstrated were: (A) community work programs represent a highly profitable investment opportunity for society, because they mobilize a large amount of savings in the rural sector in the form of low opportunity labor cost, using only a small fraction of government investment; (B) the effective mobilization of community labor depends on getting a high social rate of return on the labor contributed; and (C) the effective labor mobilization also depends on the social structure through which the benefit of the community work is distributed among different classes in the community.³⁵

The construction of 62 bridges in Banglung for only Rs 650,000 (\$50,000) presents the hope that with a proper organizational structure, the availability of appropriate technology, and the use of available local materials, rural infrastructure of a public works nature could be constructed at much lower cost. A 300 foot span suspended bridge at Armadi in Banglung was constructed for Rs. 140,000 (\$11,000) whereas

³⁵ Masaro Kikuchi "Economics of Community Work Programs: A Communal Irrigation Project in the Philippines," Economic Development and Cultural Change, January 1978, p. 215-16.

a similar suspension bridge under the Roads Department would cost nearly Rs. 1,100,000 (\$86,000). The technology for such a bridge is entirely different and the materials used are different, requiring their importation from outside the country. The use of cement and a huge amount of iron fittings contributes to the bulk of the total cost; in addition, it was estimated that nearly 40% of the cost of suspension bridge construction must be figured as overhead for maintenance of administration and administering contracts.

This does not mean to suggest that Nepal should abandon the construction of suspension bridges altogether. However, it is necessary to think of how Nepal can quickly provide the minimum needed workable infrastructures in villages. This will involve a process of initiative and implementation with local organizations enlisting local participation in decision-making and resource mobilization complemented by technological input from the government. There should be prudent judgements made in deciding on the types of bridges to be constructed. If suspension bridges alone are to be constructed in Nepal with their huge investment, only a small section of the population would benefit for the years to follow. The Banglung Bridge Project definitely presents an alternative to the policy makers. The institutional strategy adopted in the Banglung Bridge construction effort could be expanded in many districts of Nepal with similar topography and cultural backgrounds.

The trunk road of Illam-Charali indicates that the cost involved in the road per mile is as low as about \$11,000 per mile whereas the standard for such road construction has been estimated between Rs. 300,000 to 340,000 (about \$25,000) per mile. On the Illam-Charali Road voluntary labor and local resources contributed almost 30 percent of

the total cost, according to the informed engineer involved in that construction. The cost factor is important because it raises a number of questions as to how the planning agencies of Nepal can develop a strategy to expand infrastructure to help rural development.

The lessons so far indicate that the degree of people's participation in this process will be the crucial determinant of how rapidly and how far this development proceeds. The government's working with the people, particularly giving them scope through local institutions to do most of the planning and implementing themselves, can accomplish much more. If it tries to do all the work itself, the task is much too great and will detract from the accomplishments of the other development tasks it is better suited to do anyway.

APPENDIX A

Resources Mobilized for Various Programs by NDS Participants

Stationed in the Following Villages

Sample Points	Voluntary Labor Mobilized Cash Value	Cash Mobilized	Total (Rs.)
Birendranagar	Rs. 29,910	Rs. 96,000	Rs. 125,910
Ludku Sija	47,520	50,000	97,520
Narakot	60,500	26,000	86,500
Khalanga, Jumla	18,000	36,800	54,800
Thapuwa	8,000	16,000	24,000
Nairigauthi	3,500	1,400	4,900
Daileki. Bazar	770	20,900	21,670
Dullu	700	6,000	6,700
Sallyan, Khalanga	-	8,400	8,400
Sankhamul, Sallyan	75,000	3,480	78,480
Tulsipur	34,000	21,000	55,000
Bhojpur, Dang	45,000	27,000	72,000
Swargadwari	260,670	15,575	276,245
Shreepur	-	6,000	6,000
Dhangadi	-	-	-
Liskita	106,314	800	107,314
Pipalkot	-	-	-
Kerawari	22,340	10,742	33,082
Paschim Pauni	-	3,000	3,000
Simlar	4,980	9,000	13,980
Anandaban	37,800	15,752	53,552
Pokharathok	-	-	-
Madan Pokhara	-	33,000	33,000
Agauli	129,200	6,000	135,200
Waling	-	-	-
Upallohemja	31,750	10,033	41,783

Continued

APPENDIX A (Cont.)

Sample Points	Voluntary Labor Mobilized	Cash Mobilized*	Total (In Rs.)
Kahubalam Dada	28,025	4,500	32,525
Bhoreltar	-	-	-
Tarkughat	3,600	4,500	8,100
Khotewoder	27,000	28,500	56,150
Abu Panchayat	-	750	750
Bandipur	4,600	14,900	19,500
Damauli	1,200	4,500	5,700
Dhanusa	-	-	-
Basihaiya	-	-	-
Ratna Nagar	-	-	-
Bhimphedi	-	-	-
Shankhu	N.A.	N.A.	N.A.
Bhadrawas	N.A.	N.A.	N.A.
Khopasi	240	75,775	76,015
Bihawar	5,000	630	5,630

*This included the amounts received in terms on contributions from local people, aid from different agencies and investment from government agencies, etc.

The data were collected in the field in 1976-77.

APPENDIX B

Construction and Repair Activities

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Sample Points	School Building	Library Building	Laboratory Building	Hostel	Temple or Shelter for Travelers	Trail in Km.	Minor Irrigation in Km.	Drinking Water Projects	Pit Latrine	School Boundary Wall	Others
Birendranagar	-	1	-	-	-	-	-	-	-	-	1 Self-Help Housing Project
Ludkusija	1	-	-	-	-	5	1	-	1	1	1 Small Bridge
Narakot	1	-	-	-	-	4	-	1	1	-	-
Khalanga, Jumla	1	-	-	-	-	5	-	1	-	-	-
Thapuwa	1	-	-	-	-	-	-	-	-	-	1 Small Bridge
Nairigauthi	1	-	-	-	-	-	-	-	-	-	-
Dailekh	-	1	1	-	-	1/4	-	1	1	-	-
Dullu	1	-	-	-	-	-	-	1	5	-	1 Improvement of Library
Sallyan, Khalanga	-	-	-	-	1	2	-	-	-	-	-
Sankhamul, Sallyan	1	-	-	-	-	1.5	4	-	30	1	-
Damachaur	3	-	-	1	-	3	4	2	15	-	-
Tulsipur	1	1	-	-	-	-	-	-	-	-	-
Bhojpur	-	-	1	-	-	-	-	2	4	-	-
Swargadwari	-	-	-	-	-	35	-	4	2	-	1 Roofing of School Building

Continued

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