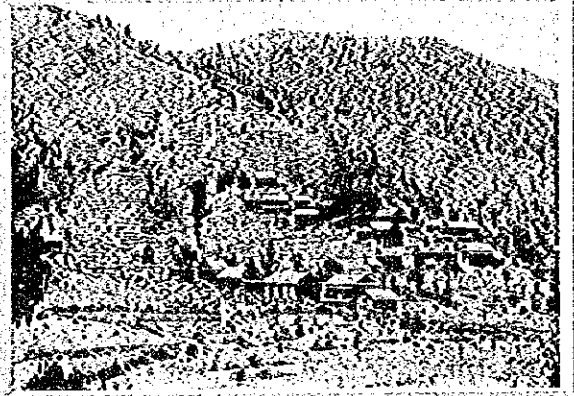
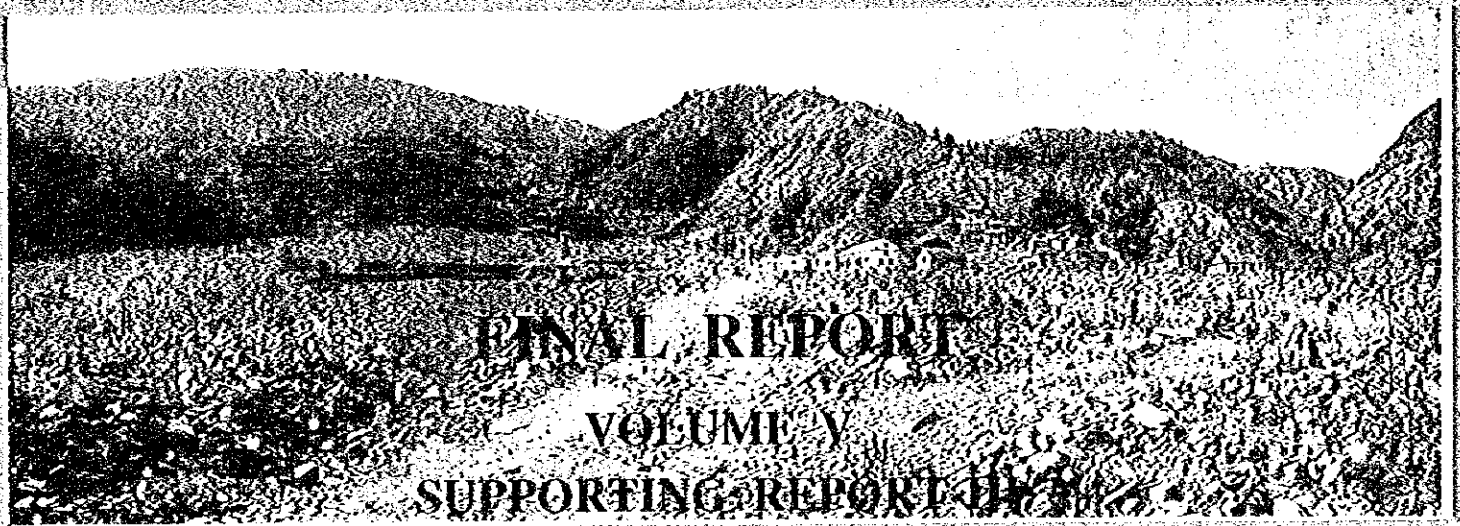


JAPAN INTERNATIONAL COOPERATION AGENCY
DEPARTMENT OF SOIL CONSERVATION
MINISTRY OF FOREST AND SOIL CONSERVATION
HIS MAJESTY'S GOVERNMENT OF NEPAL.



**THE STUDY ON THE DISASTER PREVENTION PLAN
FOR SEVERELY AFFECTED AREAS BY 1993 DISASTER
IN THE CENTRAL DEVELOPMENT REGION OF NEPAL**



**ANNEX-6 : PARTICIPATORY COMMUNITY
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**FINAL REPORT
VOLUME V
SUPPORTING REPORT-III**

**ANNEX-6 : PARTICIPATORY COMMUNITY
DEVELOPMENT PLAN
ANNEX-7 : AGRICULTURE**

MARCH 1997

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**The Study
on The Disaster Prevention Plan
for Severely Affected Areas by 1993 Disaster
in The Central Development Region of Nepal**

Composition of Reports

- Volume I** : Executive Summary
- Volume II** : Main Report
- Volume III** : Supporting Report - I
Annex-1 : Disaster Analysis
Annex-2 : Disaster Prevention Plan
Annex-3 : Hydrology
- Volume IV** : Supporting Report - II
Annex-4 : Preliminary Design for Disaster Prevention Measures
Annex-5 : Community Disaster Evacuation System
- Volume V** : Supporting Report - III
Annex-6 : Participatory Community Development Plan
Annex-7 : Agriculture
- Volume VI** : Supporting Report - IV
Annex-8 : Community Forestry
Annex-9 : Preliminary Design for Community Infrastructures
Annex-10 : Environmental Studies
- Volume VII** : Data Book - I
1. Questionnaires and answers for Households Sampling
2. Minutes for Discussion with People
3. Report on Geological Investigation of Kulekhani Reservoir
4. Collected Meteo-hydrological Data
5. Material for Seminar
6. Manual for Mulberry Tree Plantation (Nepalese Version)
- Volume VIII** : Data Book-II
1. Topographic Maps Produced by the Study

Exchange Rate

The exchange rates used in this Study are:

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ANNEX - 6

***PARTICIPATORY COMMUNITY
DEVELOPMENT PLAN***

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The Study
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Annex-6: Participatory Community Development Plan

1. PARTICIPATORY COMMUNITY DEVELOPMENT APPROACH

1.1 Basic Concept

Along with engineering approach, community development approach is the major principle adopted in the Study. In the Study, the main issue is to make disaster prevention plans for the people who have been severely affected by the July 1993 disaster. Table 1.1 shows the numbers of loss of lives by disasters for the last decade. Although it looks that community development has nothing to do with disaster prevention, it is recognised in the Study that community development is very important for disaster prevention in that it improves the living standard of people and helps to protect people from disasters directly and indirectly. Throughout the Study, plans for community development for disaster prevention are called the Community Disaster Prevention Plans (CDPP).

A direct effect of community development on disaster prevention is, for example, that a community works together to do afforestation so that landslides and slope failures will be mitigated. An example as an indirect effect is that a community development helps generate income so that the people can afford to resettle from disaster-prone areas to safer areas, then they will not face disasters any more.

Community development approach is classified as a non-structural measure; it contains no physical structure but consists of software for disaster prevention. On the other hand, a structural measure is defined as an approach taken by engineers to plan and design structures which prevent disasters physically.

The distinction between rural development and community development is clear in definition, but their objectives are so similar that they are sometimes used interchangeably. If a clear distinction is needed, it would be given as follows: In rural development, the focus is on development of a rural area, usually a rural village or a rural town which is underdeveloped compared to the national average and is the origin of the regional income disparity, while in community development, the focus is on development of a people's community, empowering people by forming people's groups. A rural area usually comprises a village, while a community comprises a unit of people's group with similarities in ethnic backgrounds, experiences, and customs, and geographical close linkages. A community is usually smaller than a village, but it is not always true, it depends on situations. Theoretically speaking in sociology, there exist broad ranges of communities in size. Although both development approaches have different literal names

and different development focuses, they often have the same or very similar objectives and methods for development. Hence the Study Team does not restrict itself to community development, rather it considers both community development and rural development in order to make effective CDPP.

In most cases in developing countries, a rural area and a community often coincide, so that it does not make sense to try to distinguish rural development from community development clearly. It can be said that community development belongs to rural development because rural development allows us to use more diversified methods than community development does in order to achieve its goal. It can also be said that both rural development and community development belong to social development because social development deals with all those which are related to social aspects. Anyway, the Study Team does not distinguish rural development from community development seriously.

In the Study, people's participation is strongly encouraged to carry out community development. It is fully understood that people's participation is indispensable for community development. The definition of people's participation in the Study, however, is slightly different from what is usually perceived by many development planners and practitioners in the world. Put differently, people's participation in the Study is much weaker than what it usually implies. In an ordinary people's participatory project, people take the initiative from the beginning of the project and are being involved till the end. That is, people, in a positive attitude, do everything such as planning, designing, constructing, operating, and maintaining. In other words, people's participation is realised by the bottom-up approach.

On the contrary, people's participation in the Study is interpreted as a mix of the bottom-up approach and the top-down approach. This mixed approach is due to the time limitation and the necessity of integration with physical disaster prevention plans. Usually it takes a long period of time to implement a participatory project. To find out what people really want and to make people participate in a project, it can be said from the experience for the last two decades by the United Nations, the World Bank, etc., that it usually takes five to ten years. But the Study should be completed within a year plus during which there is less than a half-year field research, thus people's participation is hardly realised in a usual way. Moreover, the integration of community development plans with technical/physical disaster prevention plans is also an important factor in the Study. Disaster prevention plans designed by engineers are highly technical and are not easy for people to understand and make their own plans in a co-operative way. In this sense, the integration with technical disaster prevention plans leads us inevitably to take the top-down approach to some extent.

What should be noticed in taking a mixed approach is that the experience in people's participation in the past should not be ignored - many international aid agencies have failed to obtain people's participation in their projects in which a mixed approach was taken. They have concluded that a complete bottom-up approach is a must to obtain people's participation and attain a sustainable development. The Study Team should take into consideration this fact seriously and try to make the CDPP very carefully so as not to make the same mistake.

In the discussion so far, community development approach is restricted to people's participation and the integration with technical disaster prevention plans, but this is not the end of the whole approach. An aspect of regional development is also very important in a sense that it helps to generate jobs and income, which will contribute to community development by upgrading the standard of living and reducing women's burden. The

ultimate goal of any public project is to make people better off. Disaster prevention projects are for making people's living better, not for preventing disasters themselves. In the Study, regional development is considered as one of the important components in community development. Successful regional development programs will improve people's living standard and contribute indirectly to disaster prevention in many ways. With increased income, women will not have to work hard to collect firewood because they can afford to use kerosene, which will deter deforestation, thus prevent disasters and relieve women from painstaking works as well.

By regional development it is meant that economics is taken into account for development of a region. In community development or rural development, sociology and anthropology are mainly used among disciplines in social sciences. On the other hand, in regional development, economics is the major discipline used. Therefore, for the CDPP, an interdisciplinary approach - sociology, anthropology, and economics - is to be taken.

Sustainability is an important aspect to be considered in development projects, and it is recognised in the world that community development with people's participation is very effective to achieve this sustainable development. It has been frequently seen in the past development projects that without people's participation many projects failed to achieve their goals, or even they looked successful in the short term, they were recognised as failed projects as the time went by due to circumstantial changes. It is concluded that people's participation is the key to attain sustainable development, and thus community development approach with people's participation should be explicitly considered in the Study.

The reduction of vulnerability of community to disasters is also important. Through community development, it is expected that vulnerability will be reduced and people will get stronger against disasters. One of important aspects in disaster prevention is to reduce vulnerability of people/community to disasters. If people are no longer vulnerable to disasters, they will be able to recover from disasters by themselves, or they can recover and even develop their living conditions from the aftermath of disasters. Although the reduction of vulnerability of community to disasters does not directly prevent disasters, it should be regarded as one of important aspects in disaster prevention.

Since Nepal has received so many foreign aids, it is said that the people in Nepal have to some extent a dependency syndrome. When the future of Nepal is pondered seriously, a dependency in people's minds should be wiped out and let them help themselves for their future. To do so, community development with people's participation would be very effective to make Nepali people realise the importance of self-help development. In this sense, too, community development approach should be seriously carried out the Study.

1.2 Community Development in Nepal

In the Eighth Plan (1992 - 1997) prepared by the National Planning Commission (NPC), rural development is recognised to be promoted as one of main national objectives. Community development in the Study is in line with this national policy, and the Department of Soil Conservation (DOSC), the counterpart of the Study, also has been focusing on rural development as an effective soil conservation measure, especially with emphasis on people's participation.

Since resources are strictly limited in Nepal, it is widely acknowledged that community development approach is one of the most effective approaches for development in many respects, e.g., with a little investment, no big project can be done and no dramatic

development can be expected, but beneficiaries can be the people participated and sustainable development can be achieved.

There exist quite a few INGOs and international aid agencies working in Nepal to help this country. Based on the observation in the Study, many of them have applied community development approach to carry out their own programs and projects. Disaster prevention is, however, not the main objective in most of their activities. Their objectives are mainly related to education, health/sanitation, WID, drinking water, etc. There are not many activities whose main objective is disaster prevention. Table 1.2 shows the types of activities the major INGOs and international aid agencies are doing against disasters in Nepal.

Along with INGOs and international aid agencies, there are many local NGOs in Nepal. They work closely with INGOs; in most cases, INGOs play a role of project organisers while local NGOs play an acting role at project sites. They have accumulated a lot of experience and knowledge, and are quite effective to implement community development projects.

1.3 Approach in the Study

In the CDPP, community development approach is taken in association with people's participation. As empathised in Section 1.1, people's participation is considered in the Study to be essential to carry out community development. All programs that are given in the CDPP are basically to be carried out by people themselves with a little help from outsiders.

What matters in community development projects with people's participation is, among other things, an institutional problem. There are many institutions involved to carry out development projects such as several ministries and agencies of the central government, DDCs, VDCs, wards, communities, an international aid agency, and so on. Unless they themselves are efficient institutions and they co-operate one another effectively, a project will fail. The Study Team should carefully analyse and evaluate such institutional problems in the course of making the CDPP and try to eliminate them.

Since the study period is limited, the approach to be taken for community development is basically to make use of existing knowledge and experience accumulated by INGOs, local NGOs and international aid agencies in Nepal. The Study Team have contacted as many those organisations as possible to complete this task.

As the title of the Study implies, disaster prevention is the main objective and engineering approach is to be taken to prevent disasters. To make engineering contribution more effective, the integration of community development with engineering should be encouraged. Many physical structures will be planned and there will be great opportunities for community development to be integrated with those structures. The integration will make the project more cost-effective and more helpful for the people.

Among other things, regional development is to be focused in community development. In community development with people's participation, sociological and anthropological aspects are the ones to be considered. On the other hand, in regional development approach, methods developed in economics are mainly used. Among activities of INGOs, local NGOs and international aid agencies, economic analysis has not been done very much so far. Particularly, any regional planning for economic development is not found in the first field investigation so far. It is considered in the Study that effective

community development is designed on the basis of effective regional economic development strategies, thus much emphasis is to be put on regional development. In selection of types of prospective cash crops and cottage industries, for example, regional development aspect will be considered. Another example is that, to generate income, a possibility of the tourism industry will be taken into account.

What should be noticed in regional development, however, is that all regional development plans should be implemented by people themselves. In other words, those regional development plans which are only implemented with external help are not to be selected in the Study. For example, a new airport construction project or a new national highway construction project, though it is a typical regional development plan, is not selected because it cannot be done by people themselves. All regional development plans should be small enough and can be done within the capability of people.

Though not mentioned so far, the Study Team can provide expertise in agricultural economics, community forestry, and community infrastructure. In community development, the contribution from these experts is expected and will be highly weighed in the process of making the CDPP. These experts will supplement the formation of the CDPP with specialised knowledge and experience, and will shape and reinforce the CDPP.

The CDPP should not be an armchair theory, i.e., the CDPP should be practical and be implemented by someone in the very near future. But it is not easy to find implementing agencies due to the complexity of the CDPP by nature. As explained so far, the CDPP contains a lot of development aspects and methods such as the integration with engineering approach, people's participation, regional development, WID, agricultural development, and so on. It is almost impossible for one organisation to deal with a whole package of the CDPP. Rather, several organisations take their parts, choosing a portion of the whole project and carrying out what they can do, not trying to do what they cannot do. In this respect, visualising specific implementing agencies in the process of making the CDPP is not an appropriate manner in the Study.

In summary, the aspects considered in the CDPP are categorised as follows:

- (a) people's participation,
- (b) utilisation of the existing know-how in international aid agencies and INGOs,
- (c) integration with the structural measures,
- (d) regional development,
- (e) agricultural development,
- (f) community forestry, and
- (g) community infrastructure.

All these aspects are considered simultaneously, and ideas generated from each aspect are integrated to form the CDPP.

2. DESCRIPTION OF CDPP STUDY AREAS

2.1 General Information of Nine CDPP Areas

The nine areas selected as Community Disaster Prevention Plans (CDPP) are reiterated as shown below:

No.	Village	VDC	District
1.	Phedigaon/Phatbazar	Palung	Makwanpur
2.	Kebreni	Dandakharka	Makwanpur
3.	Bimaltar	Raksirang	Makwanpur
4.	Namtar/Tilar	Namtar	Makwanpur
5.	Chisapani	Agra	Makwanpur
6.	Deukhel	Agra	Makwanpur
7.	Beluwa	Manahari	Makwanpur
8.	Betini	Mahadevsthan	Sindhuli
9.	Sahan	Karipabriksha	Sindhuli

In the Study, since Phedigaon and Phatbazar are so close each other, they are treated as one village, and so are Namtar and Tilar. There are seven areas selected in Makwanpur District and two in Sindhuli District.

Table 2.1 shows a brief description of the two district profiles. The literacy rates in both districts are low. Especially almost all women who are older than twenty years old are illiterate there, according to the field survey by the Study Team. Regarding employment, more than 90 % of the people are engaged in agriculture in both districts. Since Makwanpur District has larger cities and towns such as Hetauda, there are more people engaged in the service sector and the manufacturing sector. There are many groups of different ethnic population there. The majority are Nepali and Tamang. What is noticed is that Tamang in Makwanpur District is the largest ethnic group, which does not coincide to the national picture of the ethnic group distribution in Nepal. Major export goods are mostly agro-products, no particular location-specific products are seen, though construction materials in Makwanpur District are really location-specific.

Topographically speaking, they can be classified into two, i.e., hilly areas (Phedigaon/Phatbazar, Kebreni, Bimaltar, Namtar/Tilar, and Deukhel) and flat areas (Beluwa, Betini, and Sahan). Villages in hilly areas are located on steep slopes of hills, while those in flat areas are located along river areas.

Because of these topographic differences, natures of disasters are also different. Villages in mountainous areas suffer from frequent landslides and slope failures (Kebreni, Bimaltar, and Deukhel), and if they are located along streams, they also sometimes face debris flows which suddenly wash villages away (Phedigaon/Phatbazar and Namtar/Tilar). Villages in flat areas mostly suffer from floods and siltations over farmlands and houses (Beluwa, Betini, and Sahan).

There are many similarities among nine areas. They are mostly engaged in agriculture only, try to be self-sufficient in living, and there is no other industry. To earn cash income, they sometimes sell their agricultural products and work as daily labourers. They are basically very poor, especially since the 1993 disaster their standard of living has been deteriorated and kept trapped in the situation where people can barely survive. They do not have any countermeasure to stand up against future disasters, leave dangerous situations as they are, and live their lives as they use to. They still live in disaster-prone areas, with the fear of the next disaster.

Among nine areas, there are two areas to which vehicles can reach in the dry season - Phedigaon/Phatbazar and Namtar/Tilar. There is an access road between the Tribhuvan Highway and Namtar/Tilar which is maintained by the people. It seems very difficult to drive a car on the road during the rainy season. On the other hand, an access road to Phedigaon/Phatbazar is just a trail made along the dried river bed of Palung Khola, there is no chance to use it during the rainy season though it is very close to the Tribhuvan Highway. These two areas have a tremendous geographical advantage in that they can easily access to a national highway. Beluwa is located on the East-West Highway and there is no problem at all in transportation.

Other six areas are basically located at remote areas and have no easy access to an artery of national transportation network. Because of this, economic activities in these six areas are inward-looking, i.e., a self-sufficient economy. The people living there are producing agricultural outputs which are enough to feed themselves and try to sell a fraction of outputs to earn cash income.

Tables 2.2 and 2.3 are derived from the interviews of thirty households at each area in which the Questionnaire (I) prepared by the Study Team was used. Although the data is not so reliable due to, among others, the bias of interviewers and interviewees as well as the violation of sampling theory, Tables 2.2 and 2.3 give general information on nine areas and make it easy to compare them each other.

Table 2.4 is derived from the Questionnaire (II). It shows the damage caused by the 1993 disaster. The numbers of the persons dead and injured are relatively reliable data, while the numbers of damaged houses, livestock dead, and damaged farmland are not so much reliable data. Especially, the Study Team thinks that the sizes of the damaged farmland were just rough estimation made by participants in group discussions. Moreover, farmers are inclined to exaggerate their damage on their farmland in order to receive more assistance from outsiders. Phedigaon/Phatbazar had the most severe damage on human lives with 58 people dead and 250 people injured.

In Beluwa, almost all households interviewed are landless because the village was completely washed away by the flood of Manahari Khola in July 1993. Since they are all landless, most information on Beluwa in Tables 2.2 and 2.3 are irrelevant. Unfortunately they can be regarded as squatters since they have no land, living in huts along the East-West Highway. Surprisingly, no household interviewed is landless in Kebreni, Bimaltar, Chisapani, and Deukhel.

Electricity is available only in Namtar/Tilar. The average numbers of family members are almost the same as the national average, except for Betini and Sahan where they are bigger than the national average. Deukhel and Chisapani suffer from longer times, forty to fifty minutes, to fetch drinking water, while other areas need twenty minutes or so. With respect to the collection of firewood and fodder, the conditions have been deteriorating due to deforestation in the areas, this work is the most painstaking one in their daily works. It takes four to six hours to collect firewood and fodder in most areas, and it is done mainly by women.

The results of the question on development priority show that a drinking water development project is given the first priority in Phedigaon/Phatbazar, Kebreni, Bimaltar, Namtar/Tilar, and Chisapani. The people in Betini and Sahan think that a disaster prevention project is most important for them, and a road development project is urgently necessary in Deukhel. Since Beluwa was washed away completely, the people in Beluwa hope to have new lands for them and they give the first priority to a settlement project. Though most of the people in the areas have suffered from disasters, what they really

need now is not always a disaster prevention. A disaster happens once in a while. Generally speaking, what most people really need now is something good to improve their everyday life, not a thing that will be useful someday in the future. The implication is that the people in the areas cannot afford to prepare for the future, rather they are so poor that they have to find a way to survive day by day.

The field observation by the Study Team gave a general perception that the land where water is available is mainly used as paddy field, and if not available, the land is used for producing maize, millet, wheat, and vegetables. Betini, Sahan, and Namtar/Tilar are located along rivers and the farmers there can cultivate rice. Other areas are basically located in hilly areas and water is not much available, so their lands are mainly used for producing maize, millet, wheat, and vegetables. The data on major agricultural products in Table 2.2 almost coincides with the observation by the Study Team. Since Phedigaon/Phatbazar and Chisapani are close and have similar geographical conditions, they have similar kinds of agricultural productions.

2.2 Rehabilitation Activities after 1993 Disaster

In all nine areas no visible activities of rehabilitation by the people themselves have been observed. The farmland covered with silts and/or debris are not reclaimed. Instead, the marks made of several stones are seen there to claim the ownership of that land. Damaged houses are cast off and new houses are built at other locations. Damaged irrigation canals are also left behind and the paddy field that was once irrigated is used now for producing maize, millet, and wheat.

Generally speaking, the people in those areas do not have enough resources to rehabilitate their damaged assets, and, in addition, they do not have enough technical know-how to rebuild their communities in such a way that communities are no longer vulnerable to disasters. Anyhow, just a few areas damaged by the 1993 disaster have been rehabilitated so far.

After the 1993 disaster, many INGOs and international aid agencies have arrived at severely damaged areas and tried to help the people over there. However, most of their activities have been reached only to the places where they can access easily. Remote areas, such as Deukhel, Bimaltar, and Kebreni in the Study have not received any help from them. (The people in these three areas met many surveyors and researchers and were asked many questions, but they did not obtain any help.)

The areas where INGOs, local NGOs and international aid agencies have been done, are doing or will be doing some relief activities are Phedigaon/Phatbazar, Namtar/Tilar, Betini, and Sahan. In Phedigaon/Phatbazar, a German football team provided new land for those whose houses were completely destroyed, assisted land reclamation for those whose lands were buried by debris, and conducted river training works with gabion walls. A new school has been built as well after the 1993 disaster. In Namtar/Tilar, a new suspension bridge has been built with the help from the money raised by Japanese volunteers since the old one was washed away. In Betini and Sahan, two INGOs (Action Aid and USC Canada) have completed their study and will be implementing their own programs shortly.

The village of Beluwa was completely wiped out by the flood of Manahari Khola and it no longer exists at the original location. All the people in Beluwa were forced to be relocated along the East-West Highway and all of them become landless. There is no possibility to rebuild their village at the original location, nor will they be able to rebuild a

new village elsewhere because they have no resources to buy new land. Fortunately, no person was dead due to slow inundation. Only landowners were able to receive some compensation for losing their land from the government, but landless people have not received any. They live their lives on day-to-day basis, earning small wages from daily labour work as delivery men or construction workers in neighbouring villages.

Bimaltar and Kebreni are located in the middle of mountains. It takes seven hours on foot from Kebreni to Palung or to Manahari. It takes five hours on foot from Bimaltar to Manahari. Poor accessibility hampers any INGOs or any other aid agencies from working in those remote areas. Betini and Sahan also have poor accessibility; it takes five hours on foot from there to Sindhulimadi.

2.3 Prospect for Development

In most areas, houses are scattered around and little investment on infrastructure has been made. This usually implies that it does not make sense to take ordinary economic development strategies to those areas. That is to say, returns to investment are expected to be very small in the sense of economics. In place of taking those strategies, community development strategies can be quite effective in those rural areas. In community development, people's participation is encouraged and the people themselves take actions: they plan, design, implement, operate and maintain programs themselves. No large monetary investment or no highly technical knowledge is required to carry out community development.

From the viewpoint of regional development, Phedigaon/Phatbazar and Namtar/Tilar have a great potential to be developed. This is because they have geographical advantages in that they are close to large markets such as Kathmandu and Hetauda. Phedigaon/Phatbazar is next to Palung which is famous as an exporter of vegetables to Kathmandu. Namtar/Tilar is close to Hetauda which is occupied at the key location, i.e., Hetauda is on the lifeline which connects Kathmandu with India. Moreover Hetauda itself is a good market to Namtar/Tilar. If these two villages will be able to produce attractive goods, demand for them will exceed their supply capacity and the villagers will be able to capture the benefits.

Along with the development of Phedigaon/Phatbazar, Chisapani will also be able to be developed because it is located within one-hour walking distance to Phedigaon/Phatbazar. Although Chisapani is located at steep slopes and has poor natural endowments, the easy access to Phedigaon/Phatbazar will make Chisapani developed. Deukhel, since it is located along the extension of the development axis of Palung, Phedigaon/Phatbazar, and Chisapani, may be able to share a portion of benefits with Chisapani by the development of Phedigaon/Phatbazar as well.

Bimaltar and Kebreni have the same geographic situation - their accessibility to a large market is extremely poor. Financially, it does not absolutely make sense to construct any motorable access road to Bimaltar and Kebreni. What can be done in these two areas are to improve self sufficiency level and to do something like building a warning and evacuation system.

A village of Beluwa does not exist any more. A big project with huge investment is necessary to rebuild this village somewhere, but it is infeasible within the development framework adopted in the Study. What can be done for this village seems to be quite different from those being planned for other areas. It is likely that benefits generated from development projects will reach to other people such as landowners, company owners,

people in other villages, but not to the people of Beluwa. When any development project for them is planned, it should be deliberately planned so as to make the people of Beluwa direct beneficiaries.

Betini and Sahan have similar socioeconomic and geographic conditions as they are so close each other. Although their lands were damaged extremely, it can be said that they still have advantages in agriculture as compared with other areas - they have more flat lands and more water available. It needs to have huge investment to confine the flow of Marin Khola, so it is not possible to carry out any effective disaster prevention project in a satisfactory level. Taking advantages in natural factors for farming, the prospect for a development of Betini and Sahan seems to be good, but a poor accessibility to a major market does not allow for prosperous future.

3. PRIORITY AREAS FOR CDPP

For further study, three priority areas for the CDPP are recommended based on the investigation and the analysis made by the Study Team during the first field investigation period, and determined by the second steering committee meeting. In the following subsections, firstly the three priority areas are indicated, then the method and the result of the scoring sheet are explained, and finally the evaluation and the conclusion of the selection of the priority areas by the Study Team are explained.

3.1 Three Priority Areas Selected for CDPP

The Study Team evaluated all data and information collected by the middle of February, 1996, concerning the nine areas for the CDPP, and selected the three priority areas for the CDPP to be recommended for further study - the feasibility study. In the second meeting of the steering committee, the selection of the three priority areas for the CDPP recommended by the Study Team was discussed and agreed upon by the attendants of the meeting, and officially approved by having signed the minutes of meeting to the second meeting.

The three priority areas for the CDPP are as shown below:

- (1) Phedigaon/Phatbazar
- (2) Namtar/Tilar
- (3) Chisapani

The Study Team would be carrying out the feasibility study on these three priority areas in the next study stage. In addition to these three areas, one area was selected for further study for the CDPP. The additional area for the CDPP is:

- (4) Sahan

Instead of carrying out the feasibility study, however, the Study Team would be carrying out the preliminary feasibility study in Sahan. Since most villages located along Marin Khola have similar characteristics in socioeconomy and nature of disasters, it is expected that it will be possible to duplicate this preliminary feasibility study in Sahan to many other areas along Marin Khola.

3.2 Scoring Method and Result

For the selection of the three priority areas for the CDPP, the Study Team gathered socioeconomic data and made extensive discussions with INGOs and international aid agencies, and also subcontracted a local sociological survey firm and let it carry out sociological field investigations - quantitative survey by the Questionnaire (I) and qualitative survey by Questionnaire (II).

Combining the results of the sociological field investigations by the local firm with the data and the information gathered and the field reconnaissance made by the Study Team, the priority of each area for the CDPP was evaluated and determined by the Study Team.

It is said that an evaluation of social aspects is likely to be arbitrary and depends on each evaluator. In order to avoid such deficiency of the arbitrariness in social evaluation, the Study Team developed the evaluation criteria from which the Study Team tried to derive objective evaluation results. The Study Team proposed the selection criteria and weights which were discussed and revised in the steering committee meeting on January 23 to 24, 1996, and were determined as follows:

No.	Criteria	Weight	Percentage
1)	Possibility of people's participation	12.5	25%
2)	Damage to the community by the disaster	7.5	15%
3)	Hazard potential in the community	12.5	25%
4)	Necessity of rehabilitation of the community	5.0	10%
5)	Possibility of community development	5.0	10%
6)	Possibility of women in development	2.5	5%
7)	Engineering merit	5.0	10%
TOTAL		50.0	100%

The scoring method is to multiply a score in each subject by a corresponding weight and add up scores of all subjects. The total scores of nine areas are shown below:

Rank	Area	Score
1.	Phedigaon/Phatbazar	76.5
2.	Namtar/Tilar	69.0
3.	Chisapani	57.0
4.	Kebreni	51.5
5.	Beluwa	48.5
6.	Bimaltar	36.5
7.	Deukhel	36.0
8.	Sahan	35.5
9.	Betini	33.0

The summary and the detail of the scoring on the basis of the above evaluation criteria are shown in Table 3.1 and Table 3.2, respectively.

The Study Team used this scoring result as one of major information and analyses for selecting the priority areas for the CDPP. Note that the Study Team did not completely rely on the above scoring result to determine three priority areas for the CDPP.

Let us look at each subject in the scoring sheet and discuss characteristics of the scores given. The subject of item 1 is, "Possibility for People's Participation." This is important from the aspect of community development and thus weighted by 25 % of the total score (the maximum score is 100). The more active social development programs by local people and NGOs are, the higher the score is. Since many such activities are observed in Namtar/Tilar, it received full and the highest score (25) of all. Deukhel is located at a remote place and few such activities are seen there, so that it received the lowest score.

There may be, in a sense, another argument that such an area where few activities are carried out should receive a higher score so as to implement a social development program. However, the rationale adopted in the Study is to implement prospective CDPP projects in a cost-effective and minimal-risk way. Because of constraints to time and budget in those projects envisaged in the Study, it is unfortunate to say that it is not

possible to implement CDDP projects from scratch to those areas where longer time and larger investment are necessary to implement a community development project.

Item 2, "Damage due to the 1993 Disaster," is to evaluate the magnitude of damage caused by the 1993 disaster. Since the focus of the Study is to do something for those who have been severely affected by the 1993 disaster, as the title of the Study implies, it is important to evaluate explicitly those damage in each area. The scoring weight is 15 % of the total. The more damaged, the higher the score is. Phedigaon/Phatbazar has the highest score due to the fact that they suffered from debris flows which killed many village people and washed away large portion of their land.

While most evaluations in the scoring sheet are made by social scientists, engineering viewpoints prevail in item 3, "Hazard Potential," and item 7, "Engineering Merits." These items should be considered in the selection of the priority areas for the CDDP because it is not possible to cover all aspects of development only by using theories and methods in social sciences. Item 3 receives 25 % and item 7 receives 10 % of the total score. In case that there is a high hazard potential, something should be done immediately otherwise another disaster will happen in the near future with a high probability. What is evaluated by "Engineering Merits" is the easiness and the cost effectiveness of constructing structures for disaster prevention.

In item 3, a possibility for future disaster is evaluated. Phedigaon/Phatbazar and Chisapani have the score of 21, which is the highest among those of the nine areas. In Phedigaon/Phatbazar, few disaster prevention measures are done to existing alluvial cones which have been formed by the past debris flows and highly likely to generate another disaster in the future. Many people in Chisapani still live in landslide-prone areas. In item 7, Phedigaon/Phatbazar receives the full score while Betini and Sahan receive the lowest. To do some structural measures in Sahan and Betini, Marin Khola on the whole must be taken care of. Any piecemeal structural measures around the two villages will be meaningless.

"Necessity of Rehabilitation of the Community" is evaluated in item 4. If many houses, farmlands, and infrastructures are severely damaged and the people feel a strong need for rehabilitation of those damaged ones, then a higher score is given.

Since most rural people are engaged in agriculture, agricultural development is considered in the Study as one of very important aspects for the CDDP. It is also considered in the Study that it would be much better if agricultural development could be done through disaster prevention programs proposed in the Study. This is why item 5, "Possibility of Agricultural Development through Disaster Prevention Activities," is chosen as one of evaluation items.

In the Study, women-in-development (WID) is one of specific objectives, and it is evaluated in item 6, "Possibility of Women-In-Development." The more the people are aware of WID and the more active they are doing something for it, the higher the score is.

3.3 Evaluation

Now let us discuss about the subjective evaluation made by the Study Team. The Study Team consists of engineers and social scientists, and each staff member has a different skill and experience and a different opinion in the selection of the priority areas for the CDDP. The evaluation in this subsection was made under the initiative of a specialist in community development and people's participation. Although the staff members have

their own evaluations, surprisingly, they all have fully agreed to the selection of the three priority areas and agreed more or less to the scores derived from this scoring method.

From the viewpoints of social scientists, Phedigaon/Phatbazar and Namtar/Tilar have the biggest potential to carry out social and economic development. They are attractive in that they are so close to large markets. Many community activities have been observed there too, which implies that it seems easier to implement community development programs. Though they look richer than other villages, as mentioned before, the criterion in the selection of the priority areas in the Study is, among other things, to choose those areas where community development can be implemented with a low risk and with high and quick returns. In this respect, these two villages are appropriate to be chosen for further study. Since Chisapani is not far from Phedigaon/Phatbazar (one hour on foot), Chisapani can be developed effectively along with the development of Phedigaon/Phatbazar.

Kebreni, Bimaltar, and Deukhel are located at remote areas in the middle of hills, few community activities are observed due to the reluctance of INGOs. Therefore, it is concluded according to the criterion in the Study that possibility of community development is low. Furthermore, there is low possibility for economic development due to geographical disadvantages and poor natural endowments.

The original location of Beluwa was completely wiped out. Most of the villagers have no land right now. Under these circumstances, if a community development program is implemented, almost all benefits will go to the other people. For instance, if an agricultural development program is implemented, profits from increased agricultural production will go to the landowners, not to the field workers of Beluwa. It is hard to think out an effective community development program for them because options for community development are really limited. The social scientists understand that the people of Beluwa are the most severely affected ones by the 1993 disaster among the nine villages, but they cannot help but give a low score to Beluwa.

Sahan and Betini are also located far from a large market such as Sindhulimadi - five hours on foot. A large portion of their land was washed away by floods of Marin Khola, and they express that they are suffering from disasters very much. The social scientists, however, evaluated their situation and concluded that they are basically better off than those in other areas. Floods destroyed their lands but they seem to have still larger lands than others. They look to have better experience and capability in community development, but two INGOs are about to implement their own development programs over there. The Study Team must avoid any overlapping of efforts with those organisations. Hence the Study Team gives low scores to Sahan and Betini.

From engineers' viewpoints, Phedigaon/Phatbazar and Namtar/Tilar are good places to carry out structural measures. If resources are unlimited, it is possible to conduct any kinds and sizes of engineering countermeasures against any kinds and sizes of disasters. This is always untrue in fact. Resources are scarce in Nepal, so engineers must consider the financial and technical feasibility in structural measures. Regarding Sahan and Betini as well as Beluwa, the objects - Marin Khola and Manahari Khola - are too big to deal with. A piecemeal countermeasure will never give any satisfactory result. In this sense, it is impossible to do something over there. On the contrary, the objects to deal with can be confined to be small so that cost-effective and feasible structural measures can be carried out in Phedigaon/Phatbazar and Namtar/Tilar.

With respect to Kebreni, Bimaltar, Deukhel, and Chisapani, they are quite likely to face another landslide in the near future, but returns to investment are too poor to carry out any

structural measure there. For example, a house is located at the tip of a gully where it is highly likely to have another landslide. To protect this house from landslide, it is necessary to construct five to ten of check dams and several works for slope protection along the gully. Consequently, it does not make sense to invest any money to structural measures, rather it is better to ask the people living in the house to resettle somewhere else.

Let us summarise all evaluations made by social scientists and engineers. Both groups agree that Phedigaon/Phatbazar and Namtar/Tilar should be chosen as the priority areas for the CDPP and that Sahan and Betini should receive lower priority. Another coincidence in evaluations of both groups is that Beluwa is suffering most but has very low possibility for development.

4. FIELD SURVEY METHODS AND FINDINGS

4.1 General

In whatever kind of a social development project, as long as people are involved, some kind of social survey should be always required in order to plan and design a project. There are many methods of sociological surveys available in the world, and the Study Team used some of them which met the purposes of the sociological survey in the Study. In this chapter, the four major survey methods are explained. They are presented in the chronological order conducted in the Study. Then a brief description of the findings from each survey method is provided in order to illuminate the transition of people's minds and other sociological information from the beginning to the end of the Study.

These four methods are, of course, not enough to accomplish the goal set in participatory community development. There were hours of personal conversation with villagers, government staff, and those people working in the field of development assistance. Also the Study Team conducted data collection at government agencies and other places. But these activities are not particular in sociological field survey. The methods presented in this chapter are only those that are particular in sociological field survey done by the Study Team.

4.2 Survey Methods

4.2.1 Household Baseline Survey - Questionnaire (I)

This method was used at the beginning of the whole social survey in the Study. The purpose of this is to grasp quickly a general picture of the community with quantitative data collected by using the questionnaire. The Questionnaire (I), shown in Appendix A, was used to collect quantitative data by asking thirty household heads at each community. Since there were nine CDPP areas, the total number of samples was 270.

This survey was conducted by a local sociological consulting firm: it formed three teams each of which consisted of one team leader and four assistants. Three teams were dispatched simultaneously to the nine project sites and collected quantitative data.

The questions asked in the Questionnaire (I) were mostly general ones to know about his/her family and its business. The Questionnaire (I) was prepared based on the proposition that most people were engaged in agriculture and affected more or less by the 1993 disaster. Thus many questions were directed to collect information on agricultural matters and disasters. For formulating community development projects, development priority in his/her village was asked at the end of the questionnaire. A questionee was asked to rank development projects from one to five among ten alternatives.

4.2.2 Qualitative Survey - Questionnaire (II)

Along with the above household baseline survey, a qualitative survey was carried out by using the Questionnaire (II) that is shown in Appendix B by the local consulting firm mentioned above. Since the Questionnaire (I) can collect only quantitative data, the Questionnaire (II) was also used to collect qualitative data.

To fill up the Questionnaire (II), several key informants in the community were asked to be gathered and the focus group discussion with them was performed. Each question was asked to all participants and the answer was basically given by them as a group consensus. In this way, biased information was eliminated and high-quality data was obtained effectively.

Since the Questionnaire (II) had been prepared without knowing about the community well beforehand, the questions listed in the Questionnaire (II) were directed to know about the community. What it is meant is that the qualitative data collected by the Questionnaire (II) were not intended to formulate participatory community development projects. Rather they were used as initial information to start up the field survey.

The focus group discussion was chaired and moderated by the leader of the survey team who had a good background in sociological survey - he/she can be called a "moderator." The discussion was conducted in accordance with each question in the Questionnaire (II). The moderator provided the topic (the question) to be discussed for the participants and let them discuss it freely. He/she led the discussion to reach a consensus with a little intervention and stimulus.

In all nine CDPP areas, the focus group discussion for filling up the Questionnaire (II) was carried out.

4.2.3 Rapid Rural Appraisal - Part (I)

The rapid rural appraisal method was used after the completion of the Questionnaires (I) and (II). Although all the quantitative and qualitative surveys were conducted at all nine CDPP areas, the rapid rural appraisal was conducted only at the three priority CDPP areas. This method was divided into two parts: the first part is explained here and the second part is in the next section. The rapid rural appraisal method is composed of several survey components such as key informant interviews, focus group discussion, group interviews, structured observation, and informal surveys. The detailed description of each component can be found in, for example, "Rapid Appraisal Method," edited by K. Kumar, 1993, The World Bank.

Under the name of "Rapid Rural Appraisal - Part (I)," the structured observation was carried out. The structured observation used in the Study consisted of the following components: village sketch map, village transect, farm sketch, time line, trend line, seasonal calendar, village institutions, and farm interviews. Appendix C contains the key results of the structured observation. This survey was carried out by local sociologists who had expertise in sociological field research in Nepal.

This survey should be viewed as the first half of the complete rapid rural appraisal. As explained below, the second half was carried out subsequently in which group discussions were much emphasised.

During the survey, the local sociologists tried to extract real villagers' needs for development through group discussions and individual interviews. These activities became the basis for fruitful discussions and prioritisation of development projects in the second half of rapid rural appraisal. The villagers came to realise what their problems were in their community, what they should do to solve them, etc. Moreover, the local sociologists encouraged and stimulated the villagers to go for development of their community in a self-help development style. They tried to wipe out their dependency on external assistance and pessimism for their future.

4.2.4 Rapid Rural Appraisal - Part (II)

The Part (II) consisted of various types of group discussions and key informant interviews. Up to this survey stage, villagers' needs had been already revealed to some extent and understood by the Study Team, but there was no consensus on them among the villagers. Through discussions and interviews, the Study Team tried to not only identify what the villagers really wanted to do for development, but also form a consensus among the villagers and encourage them to participate in development projects.

The Study Team conducted a variety of group discussions such as female, male, farmers, key persons, students, and all-mixed group discussions. Appendix D documented vivid conversation among participants and the Study Team. By repeating these group discussions and interviews, the development priorities of each community were emerged and finalised with consensus and enthusiasm.

It is very important to provide opportunities for various kinds of people to speak their minds freely: poor farmers and women are highly likely to keep their mouths shut in front of influential and rich men in the same community. The Study Team carefully held group discussions with homogenous types of villagers so that every attendant could open his/her mind and give his/her opinion.

After several types of group discussions, the Study Team tried to reach a consensus on development priorities among the community as a whole. To do so, heterogeneous group discussion was held at each community. Since the Study Team had already understood opinions and thought of socially weaker people, the discussion was not dominated by influential and powerful persons. The Study Team, at the opening, presented the results of previous discussions and tried to get a consensus on development priority. All one-sided stories and selfish arguments were counterattacked and eliminated by the Study Team because the Study Team had already had enough knowledge in the community.

4.3 Findings

The purpose of this section is to illuminate the transition of what the Study Team found as the degree of the sociological survey was deepened. Since the descriptions of the CDPP areas were given in other chapters in this sector report, no detail explanations of the findings are given in this section. Instead, this section describes mainly those findings which are important to illuminate the transition of what the Study Team found in the course of the survey.

4.3.1 Household Baseline Survey (Quantitative Survey) - Questionnaire (I)

What surprised the Study Team most in the baseline survey was that many people gave the highest priority to drinking water supply for the development of their community. Table 4.3.1 shows the transition of villagers' development priorities from the beginning to the end of the survey. As shown in the table, drinking water supply is given very high priority throughout the CDPP areas. Betini and Sahan are located next to the relatively large river called Marin Kholā, so that the people there have an easy access to water and asked for disaster prevention, and the people of Belawa asked for settlement first because their village was completely wiped out and they do not have their stable places to live. Deukhel is located far in the middle of the hills, thus they asked for road first, though the people in Bimaltar and Kebreni, which have also a terrible access to the outside world,

wanted water supply most. All other people, however, thought that water supply project was the most important thing to do for their village.

In the Questionnaire (I), the Study Team did not ask the people about what they personally wanted for development. What the Study Team asked the people was their opinion on what the most important thing was for their community development. The results, however, showed that the people gave their personal requirement on their daily life and that they did not have a broad range of vision toward their community development.

In the beginning of the Study, the people in the CDPP areas tended to think that if they answered the questions they would be able to receive the things they asked for. Thus they gave their first priority to drinking water supply that was a close-at-home problem without a long term perspective to the development of their community and without thinking about the most fundamental problems in their community.

Collecting firewood and fodder costs all the people in the nine CDPP areas to spend six hours or so and makes their life disturbed very much. This implies that the conditions of the surrounding forests are considerably deteriorated. On the other hand, it takes only twenty minutes or so to collect water.

If the land is flat and enough water is available, the people are mostly engaged in paddy production. If not, maize, millet, wheat, and potato are mainly produced. Particular finding in agriculture is that cauliflower is produced in Phedigaon/Phatbazar and Chisapani and garlic and mustard in Namtar/Tilar.

Landless people are found in Beluwa, Phedigaon/Phatbazar, Namtar, Betini, and Sahan. Almost all are landless in Beluwa. Kebreni and Bimaltar have large owned land and consequently they have a lot of livestock as well. Except for Beluwa, the average sizes of owned land in the nine CDPP areas are more than twenty ropani. It is said that twenty ropani is at least enough for one family to make living by agriculture. If it is so, all those who own their land can survive in general. The main reason to become landless is the 1993 disaster. If it had not been for the 1993 disaster, almost no one would have suffered from poverty.

The annual income last year was investigated, but it is realised that the data did not represent the degree of wealth because most people were farmers and they supported themselves by agriculture. For instance, the Beluwa people earned relatively higher income, but it was because they did not have their own farmland and needed cash income for living. The original place where the Beluwa village existed was completely destroyed and no one lives there now. The Beluwa villagers have been scattered around nearby and some of them have formed a couple of squatters' camps along nearby the East-West Highway where the land is publicly owned. Thus many of the questions asked in the Questionnaire (I) were irrelevant to the Beluwa villagers.

The question on job responsibility shows that the jobs related to housekeeping are women's responsibility, while the jobs related to agriculture are men's responsibility in all areas. What is noticeable is that women are responsible for collecting water and firewood which is the most laborious and time consuming job among all jobs.

4.3.2 Qualitative Survey - Questionnaire (II)

Group discussions with knowledgeable persons were held in this survey. Because of group discussions, the development priorities looked much realistic and represented the real needs for community development. No selfish desire was involved in the decisions on determining development priorities. When the development priorities in this survey are compared with those in the later stages, it is found that there was not so much difference in priorities. In other words, the development priorities determined in this qualitative survey mostly represent the reshaped priorities, although the group discussion was held by only less than ten representatives.

The drinking water supply was devalued dramatically in most areas. On the other hand, road was valued highly. In Beluwa, since no development is possible without a place to live, the villagers did not change their thought to ask for resettlement first. In Phedigaon/Phatbazar, irrigation took the place of drinking water supply as the first priority. Road became the first priority in Kebreni because it is located at a remote area. In Bimaltar, drinking water supply disappeared from the top five though it was once ranked second in the baseline survey. In Namtar/Tilar, drinking water supply also disappeared from the top five. Instead, road became the first priority and bridge was newly ranked in the top five. In Chisapani, the same thing happened and there was no drinking water supply. The top three did not change very much in Deukhel. In Sahan, disaster prevention was once ranked number one priority, but it disappeared and irrigation suddenly was ranked number one though it was not ranked in the top five before.

Another finding to be worth mentioning is that in most areas there existed or exist some indigenous groups though most of them have been inactive. A typical one is called "Parma." When people need to build a house or a temple, they co-operated each other in construction activities. However, these systems have been gradually disappearing these days. It may be said from this observation that rural communities are disintegrating. Though the data was too limited and no detailed study was made, if a bold conjecture is permitted, the disintegration of rural communities must be due to modernisation and/or population explosion.

There were few activities of NGOs observed in the CDPP areas. Moreover, the services provided by the HMG were not available very much. These must be due to the poor accessibility to major cities and people's ignorance. NGOs are likely to conduct their activities at the places where the accessibility is good, which is one of the major criticism against NGOs. The HMG provides a variety of services. Nevertheless, rural people do not receive those services and they do not apply for receiving them. This is mainly due to people's ignorance. The HMG staff also do not incline to go into remote areas to provide their services very much.

Women do not play a major role in all CDPP areas. Women are undervalued in the society and they are not involved in decision making. Their literacy rates are extremely low and almost all adult women cannot read.

After the 1993 disaster, the quality of life has been deteriorated everywhere in the CDPP areas. Not much rehabilitation activities have been done. This must be due to vulnerability of the people against disasters. Basically they do not have a capability to recover from disasters themselves. They did not have savings in banks. They completely relied on agriculture. Once a disaster destroys their farmland and washed away their houses and food stock, they have no means to keep living.

4.3.3 Rapid Rural Appraisal - Part (I)

This survey was carried out only in three CDDP priority areas, i.e., Phedigaon/Phatbazar, Namtar/Tilar, and Chisapani. In this stage, the Study Team frequently contacted key persons such as VDC chairpersons, Ward members, and other influential persons in their communities. By this survey, the understanding on these communities was very much improved. Let's discuss first about development priority. In Phedigaon/Phatbazar, irrigation was again the number one priority, but drinking water, which was ranked third in the qualitative survey, disappeared. Timely procurement of agricultural inputs and improvement of agricultural marketing system were newly ranked in the top five, instead. The people in these villages can produce very profitable agricultural goods such as cauliflower, but they have a problem to obtain chemical fertilisers when they are required due to poor production capacity. In addition, the farmers there sell their agricultural goods to the traders who exploit the farmers because the farmers have no bargaining power.

In Namtar/Tilar, bridge was omitted from the top five and disaster prevention was newly ranked within the top five. Basically, however, there was no big change in priorities. The people in Namtar/Tilar realised that constructing a new suspension bridge was costly and that as long as the road project was carried out there must be some structure to cross Manahari Khola. Thus they dropped a new suspension bridge construction. It is correct to think that providing vocational training program ranked fifth in the qualitative survey and creating employment opportunities ranked also fifth in RRA - Part (I) are basically the same intention.

In Chisapani, a new motorable road construction was ranked first. They can produce very profitable agricultural goods such as cauliflower. But they have suffered from carrying agricultural goods to Phedigaon and Phatbazar for about one hour for sales. Forest was ranked second and disaster prevention disappeared. The people in Chisapani realised that disaster prevention measures like concrete check dams were very expensive and not so effective and that afforestation was a more realistic measure against disaster prevention. They thought that even foreign donors could not stop the landslides since they were so huge and overwhelmingly powerful. On the other hand, they thought that a motorable road throughout the year could be constructed by technology and money from a foreign donor.

There were many formal and informal group activities found in this survey though there did not exist many in the previous survey. Nevertheless, most of them are not very active and they did not seem to become an engine of community development. The Agricultural Development Bank of Nepal (ADB/N) has the service of providing loans to farmers who form a small group to meet the lending criteria set by the ADB/N. It seems, however, that it is not so successful as seen in Bangladesh. Forest user groups existed in Phedigaon/Phatbazar and Chisapani, but they did not function actively.

According to the survey on historical events, it is found that landslides and/or floods have occurred periodically. In Phedigaon/Phatbazar and Chisapani, landslides and floods occurred in 1993, 1971, and 1954. In Namtar/Tilar, floods occurred in 1993, 1985, 1971, 1954, and 1944. The landslides and floods in 1954 were told to be the biggest ones except for those in 1993. It can be estimated that every twenty years or so there is a heavy rain which causes landslides and floods in these areas. The people there must know that they lived in disaster-prone areas, and they had some experience and knowledge on how to cope with these disasters, but the 1993 disaster exceeded the expectation of the people and they did not prepare for it.

4.3.4 Rapid Rural Appraisal - Part (II)

The Study Team made intensive conversation with the people in this survey. So far, the discussions and interviews were done in a way that the Study Team tried to let the people speak freely with minimal information and instruction from the Study Team. Thus the Study Team was only a passive receiver of the signal dispatched by the people. This time the Study Team was actively involved in the discussions and exchanged a lot of opinions in order to get conclusions on development priority.

Through the discussions with the Study Team, the people got to know what their real problems were, what they could and should do, what foreign donors could do, and so on. What it was meant by this was that the people got to realise that it was no use asking for the things to solve personal problems, but they should ask for the things that were realistic and practical and good for the whole community. Moreover they realised that they got to participate in the projects and co-operate with each other and donors. Understanding these things, the people changed their opinions and made more constructive and practical solutions to improve their communities.

In Phedigaon/Phatbazar, the first priority was afforestation at the place between the upstreams of Dhungakate Khola and Ghatte Khola. The people acknowledged from the beginning that something must be done to protect them from landslides. They called it disaster prevention measure at the beginning. Then at this stage they identified how to deal with disasters and specified the type of disaster prevention measure, which was afforestation. Stopping stone quarry activity, ranked second, was also derived from the same intention, that is, to prevent disasters. The third priority was disaster prevention which they thought included other types of disaster prevention measures such as river training, gabion dikes, check dams, etc. They realised that it was relatively difficult to carry out an irrigation project between the middle to the top of the hills. The Study Team explained that no irrigation was possible without check dams along the upstreams of Dhungakate Khola and other torrents. The Study Team also knew that about 100 ha of the flat area behind the village of Phatbazar was to be irrigated with the help from the ILO, the WFP and the others and that the opposite side of the site was also under rehabilitation by the people themselves, so that the Study Team informed the people that the Study Team gave lower priority to implement any irrigation project around the flat area in Phedigaon/Phatbazar. In this way, irrigation was given lower priority in this survey. Creating an evacuation system was emerged for the first time and ranked fifth. This was due to the reason that the Study Team proposed this project to save the people lives easily and cost effectively. The Study Team explained that it was almost impossible to protect the people from landslides and floods with structural measures only. The people understood how good and effective the evacuation system was and all agreed to give higher priority for community development.

What was interesting in Phedigaon/Phatbazar was that stopping drinking habit was given high priority in the women's group discussion. As the matter of fact, it is seen that many men are drinking from the morning and doing nothing during the day. Women thought that it was an important thing to do to make the men work hard for their community development. When this topic was discussed, many female attendants smiled but they seemed very serious.

In Namtar/Tilar, no big change in the order of priorities was observed throughout the various types of survey. Before the Study Team gave a lot of information and instruction, they were so smart that they had already known what they needed for their community development and what they should ask from foreign donors. A year-round motorable road construction was their first priority. They acknowledged that the road

was the start for development. There were some disputes with regard to the second priority, i.e., irrigation. The Study Team argued that benefits from an irrigation project went mainly to those who owned the land where the project provided water. They had a little dispute on this matter, but their conclusion was that the benefits would prevail all over the community in indirect way. Electrification was their third development priority. They knew that there was not an urgent need for electricity then, but they thought that it was necessary to establish some small industries. The Study Team explained that there was a possibility to construct a micro-hydro power station, which contributed to some extent to giving the third priority to electrification. They basically did not recognise the importance of afforestation. The Study Team explained to the people about community forest, then a couple of them who had a successful experience in community development near Hetauda started talking how good it was. Then the people in Namtar/Tilar got to understand about afforestation and ranked fourth.

Surprisingly, the order of development priority was the same in every different type of group discussion. Even the tenth-grade school students gave the same order. It seemed that influential persons gave the student the direction in advance to how to answer the questions from the Study Team, but still it was amazing to get the same order among different groups. The advance instruction from influential persons to women and children were observed in all three CDPP priority areas. Some of women gave apparently directed answers. Those answers should be eliminated from the conclusions of discussions.

In Chisapani, the first priority was disaster prevention. At the beginning of the Study, they thought that nobody could stop disasters, consequently they did not give high priority for disaster prevention. They rather wanted to move out of their villages to safer areas. The Study Team gave full explanation on the results of engineering analysis that Chisapani had some areas where not immediate danger existed and other areas could be used for development. The Study Team also tried to persuade the people to develop their village first before thinking about migration because there were plenty of possibilities for agricultural development though there was a danger of landslide. The people totally knew that they would fail to migrate without money and some kind of technology in their hands. The Study Team insisted that making money was the first thing to do through development of their villages and then thinking about migration was the second to avoid any disaster in the future. The Study Team understood that the people should be fully given the information on safer areas and the methods to protect further landslides and to take refuge.

Creating employment opportunities was the second priority in Chisapani. They had a little frustration that agriculture was the only employment opportunity and no other industry was available and that the farmland was eroded gradually every year by landslides. The Study Team explained how to stop further farmland erosion and how to increase agricultural income. Still, they wanted to have some other employment opportunities than agriculture even though no such opportunities were thinkable. Similarly, they wanted to have a motorable road and electrification although the Study Team explained that these two were uncritical in terms of costs and necessity for development. The Study Team said that a drinking water supply project was realistic and beneficial to the people. Thus a drinking water supply was ranked fifth in development priority.

In this survey, a valuable by-product was the mutual understanding between the people and the Study Team. The Study Team thinks that this is very important to implement any project successfully.

5. SOCIOECONOMIC CONDITIONS OF CDDP PRIORITY AREAS

5.1 Phedigaon/Phatbazar

5.1.1 General

Phedigaon and Phatbazar are adjacent each other located in Palung VDC in Makwanpur District. They have a geographical advantage - it takes only about three hours by car to go to Kathmandu, and there exists an access road from Tribhuvan Highway to their villages which runs along and across Palung Khola, though it is motorable only in the dry season. In addition, they have another geographical advantage - they are situated around 1,700 to 2,000 m above the sea level, i.e., about 400 to 700 m higher than that of Kathmandu.

What is meant by these advantages is that Phedigaon and Phatbazar can be a good supplier of agricultural products, especially vegetables, to consumers in Kathmandu, and they have been so since the FAO implemented an agricultural extension program over there about a decade ago.

According to the field survey conducted on early February, 1996, the populations of Phedigaon and Phatbazar are about 2,600 and 280, respectively, while the total population of Palung VDC is about 5,200 according to the Central Bureau of Statistics in 1994. The population of Phedigaon looks too big to believe. As is often the case in Nepal, however, a boundary of a community or a village is not clear whereas an administrative boundary of ward, VDC, or DDC is made quite clear. Since the focus of the Study is on the community of those people who have been severely affected by the 1993 disaster, the Study Team has basically contacted those people and the communities they belong to. The community of Phedigaon and Phatbazar includes Wards No. 9 and No. 8, and probably Wards No. 7 and No. 6 should also be included in the community to be focused in case that the projects planned by the Study Team have some direct influence on these two wards.

In Phedigaon, the majority of ethnic group is Tamang, roughly 75 % of the total population, then Chhetri about 16 %. The rest is nominal: Magar, 4 %; Gurung 2 %; Kami 2 %; and just a few groups such as Newar, Brahmin, Blujel, and Rauniyar. In Phatbazar, on the other hand, Chhetri is the major ethnic group with more than 80 % of the total village population, and the others are Tamang, Newar, Magar and Damai with about 3 % to 6 % each. Please refer to Tables 5.1.1 and 5.1.2 for details.

By the disaster of July 1993, 58 people's lives were lost in Phedigaon, a lot of houses and farmland were washed away and most of them still remain under the debris by now. A rough estimate of the area covered by the debris is more than 30 ha. (The memorial hall in the primary school shows 55 names of death people in the name plates on the wall, though.) Those people who lost their families, houses, and farmland are still having difficulties to survive: some victims are living with their relatives if any, providing manual labour works for nominal wages, just a few had a chance to migrate to Hetauda where the HMG/N and a Taiwanese religious group have offered houses for free though the life in these free houses in Hetauda is awful on account of no job, no farmland, no water, and no electricity. That place for resettlement in Hetauda is called the Tzu Chi Makwanpur Community, which is shown in Photo 5.1.2. It has been almost three years since the 1993 disaster happened, but it can be said that any sign of recovery or development is not observable there.

Figure 5.1.1 and Table 5.1.3 show who were killed and which houses were damaged at what place by the 1993 disaster. As seen in Figure 5.1.1, the houses washed away or

damaged were located mostly in the alluvial cone. The numbers and the letters indicated in Figure 5.1.1 correspond to those in Table 5.1.3. By looking those numbers, it is possible to identify who was killed at which house. Lower case letters give the information on those damaged houses where no casualties were reported. Observing this figure and this table, it can be said that no ethnic segregation among dead people is found. Put differently, lower caste people are not the only ones who were victimised by the 1993 disaster, but various caste groups lived together and happened to encounter the disaster together.

5.1.2 Background of community

According to the story told by the villagers in Phedigaon, the first settlers were Tamangs along with a few Kamis who came about two hundred years ago. They settled near the primary school which is located in the middle of the debris deposition right now and was once the centre of Phedigaon before the 1993 disaster. Then Chhetris and other caste groups came to settle down around Phedigaon and Phatbazar little by little. As the population increased, the people stepped into dense forests and opened up new land.

In most cases Tamangs are living in hilly areas in Phedigaon and Chhetris are around flat areas in Phatbazar these days. One possible story to explain this demarcation of living areas is that Tamangs prefer to live in hilly areas while Chhetris do not and that Chhetris are relatively richer and more powerful to occupy flat areas by gradually pushing poor Tamangs into hilly areas. But no racial or ethnic segregation in living location is observed by the Study Team.

Since Tribhuvan Highway was open in 1953, Palung VDC started to grow. But until cauliflower was introduced about two decades ago, Palung VDC suffered from famine from time to time. Especially for the last ten years cauliflower has been sold at high prices and electricity has been installed to most houses, the people in Palung VDC enjoyed high quality of living conditions. Then the 1993 disaster, which was an unprecedentedly devastating one, shattered the happiness of the people in Phedigaon and Phatbazar.

In Phatbazar, a rehabilitation project of irrigation canals has been being implemented by the collaboration of the IFAD, the ILO, the WFP, Makwanpur DDC, Palung VDC, and the people in Phatbazar. This project has a nominal input from outsiders, rather most parts of it are implemented by the people themselves. The total irrigated land will be 100 ha. To determine whether a project is implemented or not, these UN agencies adopted strict criteria, one of which is whether the local people have formed a users' group that is good enough to implement a canal rehabilitation project for itself. Since a rehabilitation project has been already being implemented and the Phatbazar people are actively working for this project, it may be thought that the community in Phatbazar has a potential good enough for community development.

On the other hand, however, the people in Phedigaon are disintegrated to some extent and the community contains internal disruption. The Study Team experienced several times disputes and quarrels among them and sometimes with the Study Team during discussions and interviews. The recent issue they are disputing is the distribution of relief stuff provided by a German football team - it provided the fund for constructing gabion walls, excavating river courses, and giving the free land for 14 families who lost their houses completely (100 square meter each), although those land are not used because they cannot afford to build their houses. Photo 5.1.1 shows only one house is being built, but other land is completely vacant. Their arguments are as follows: Many people in

Phedigaon did not even know about any relief materials being distributed; just a few people enjoyed the benefits; the people in power fattened the pockets of their own, their friends and relatives only.

In addition, it seems that the men in Phedigaon consume more alcohol than in any other study areas. Many men start drinking alcohol from the morning. Those intoxicated men attended and spoiled the discussions by diverting topics, shouting, quarrelling with each other. What should be noticed here is that the women in the female group discussion raised the issue of men's alcoholic behaviour and that they wanted to prevent the men from drinking. This issue had never been raised in any other female group discussions held in the other study areas.

5.1.3 Economic activities

In Phedigaon and Phatbazar, agriculture is the major business, all other economic activities are so small that no driving force to economic development is found. The majority of the villagers engage in agriculture, they basically do not have any other skills that can be used in other sectors except for agricultural sector.

The major agricultural products are potato and cauliflower that are mostly exported to the Terai plains and Kathmandu, respectively. Cauliflower are sold in Kathmandu at good prices and the villagers can enjoy higher incomes in comparison with the national average. This is because Phedigaon and Phatbazar are, as mentioned above, located close enough to export vegetables to the big market in Kathmandu and the height difference above the sea level from that of Kathmandu makes them export their agricultural products at different time period from competitors.

Traders visit Palung VDC, mainly Sikherkot, sometimes Phatbazar, and they make deals with farmers, collect agricultural products they bought, and ship them out to markets by the trucks they arranged. Thus the farmers in Phedigaon and Phatbazar do not have to spend much time for marketing their products, but at the same time they have no chance to bring their products to a market and ask for the best price - no bargaining power.

Relatively speaking, the people in Phedigaon and Phatbazar are richer and better off than the national average due to the geographical advantages mentioned above. However, the damages caused by the 1993 disaster have not been healed yet. Those people who have lost their families, houses, and land are still suffering very much.

5.1.4 People's activities

Agriculture is the thing they do in Phedigaon and Phatbazar, so their life style is basically the same as that of the typical farmer in Nepal. Women play significant roles in daily works such as all aspects of housekeeping as well as laborious works in agriculture. Time consuming and hard works are collection of firewood and fodder, which is mostly done by women. Based on the household sampling survey by the Questionnaire (I), the average times to collect firewood and fodder are about 12 hours and 8.7 hours, respectively. Since the forests are scarce here, it takes a long time to make the collection. Men play minor roles for living, but mainly agricultural labour works. During the day time, it is seen that many men take a rest, drink alcohol and play games while women keep working.

It seems that most children go to school but there are some who do not go. There still exist those people who cannot recognise any value in education and do not send their children to schools. The school program has been successfully prevailing in Nepal, many children can read and write nowadays while most women older than 20 years old cannot do so. Another good thing brought by the school program is that the caste system is getting lessened through sharing the same classroom with all caste people.

5.1.5 Problems

Through the survey and frequent visitations, the Study Team have been noticing many problems in the communities from major ones to minor ones. Among those problems, several major problems that may be paid attention to in the Study are described in the following. Please note that the order of presentation of each problem does not necessarily represent the degree of importance.

(1) No recovery from the 1993 disaster

The first problem that can be noticed when visiting Phedigaon and Phatbazar for the first time is the debris deposited during the 1993 disaster still remaining all over the villages as it was three years ago. Since no major structural measure for disaster prevention has not been taken, the people think that another debris flow or flood look likely to happen any time, thus they are quite reluctant to reclaim the land. This implies that there still exist a lot of landless people suffering from losing their properties. There are few job opportunities for those landless people, so what they can do to make living is to work as peasants at the farmland owned by large landlords or as porters to carry some loads, or to go to Kathmandu or somewhere and find jobs. Unfortunately, all these alternatives will not give them a good living.

(2) Disaster-prone areas

Since no structural measure for disaster prevention has been taken, several houses are still located at disaster-prone areas. Many people are frightened to another disaster, but they do not know exactly how much dangerous it could be. At the same time, they have no choice but to stick to their houses and land in disaster-prone areas because they cannot afford to move to a safer place.

(3) Divided community

As described in this section, the community in Phedigaon has a potential to have an internal disunion. Dissatisfaction among those who did not receive any relief materials is so huge that it is likely for any community development project with people's participation to be disintegrated and end up with a failure.

(4) Rainfed agriculture

Many farmers rely on the rainfall, so that their productions fluctuate season by season and year by year. Rainfed agriculture makes farmer's life unstable and hinders further development. The 1993 disaster destroyed many irrigation canals most of which have not been rehabilitated, but the canals behind the centre of Phatbazar are now under rehabilitation and 100 ha of land will be irrigated soon. There is no possibility to irrigate the farmland in hilly areas where even drinking water is not sufficient enough.

(5) Deforestation

There once were dense forests in Phedigaon, but nowadays the forest areas have been retrieved to tips of hills. Most villagers are aware of the phenomenon of deforestation and its consequences, they think they need to do something against deforestation. They have formed an informal forest users' group and tried to save the forests, though it was not effective so far. The Tamangs living next to the forests do not give up their traditional habits and keep living on the forests.

(6) No motorable road during the monsoon season

During the dry season, there is a motorable road from Tribhuvan Highway through Palungbazar, Phatbazar, up to Phedigaon which goes along and across Palung Khola. But a vehicle cannot go during the monsoon season, for it is just like a trail made by a single blow of bulldozer along the river bed and bank. Economic activities during the monsoon season are considerably hindered due to no motorable road.

5.1.6 Priorities of Community Development

When the Study Team visited Phedigaon and Phatbazar on May 19 to 23, 1996, the priorities of community development for their communities were discussed and they have tentatively decided the priorities that are to be described in this section. This survey is called the Rapid Rural Appraisal - Part (II). Before May 19, the Study Team had already held various group discussions and key informant interviews many times. Prior to these discussions, the household baseline survey by the Questionnaire (I) and the focus group discussion with key informants by the Questionnaire (II) had been conducted in January and February, 1996. Also the Rapid Rural Appraisal - Part (I) had been done in March, 1996.

From May 19 to 23, the Study Team, to begin with, held several group discussions such as female group discussion and male group discussion in each of which development priorities were determined (see Photos 5.1.3 to 5.1.6). Then the Study Team held a final group discussion in which participants were heterogeneous comprising key persons, farmers, landless, untouchables, female, etc. In this final group discussion, the priorities derived in the previous discussions were presented and the views of the Study Team were also presented. At the end of the final group discussion, the priorities were determined with a consensus among all participants.

The discussions were held separately in Phedigaon and Phatbazar. Surprisingly, however, both villagers in Phedigaon and Phatbazar ended up with the same priorities in development as shown below.

Development Priorities in Phedigaon and Phatbazar

- No. 1: Protection against Deforestation
- No. 2: Termination of Stone Quarry
- No. 3: Construction of River Control Works
- No. 4: Rehabilitation of Irrigation Canals

Not only the Phedigaon people but the Phatbazar people recognise that the deforestation of the forest between Ghatte Khola and Dhungakate Khola and the stone quarry along Dhungakate Khola are the major causes of the debris flows occurred in July, 1993. Because of this perception, they have ranked "protection against further deforestation"

and "termination of stone quarry activity" as the highest priority. Moreover, they think that these two are their own internal matters and can be dealt with by themselves, without any assistance from outsiders.

The concerned forest is mainly used by the Tamangs living nearby who do not follow the rules the Phedigaon village has enforced. Phedigaon has a forest user's committee, but it is not legally acknowledged by the HMG/N. The committee despatches a group of guards everyday with five to ten people to oversee the forest, but it does not work well. The Phedigaon people understand the mode of living of Tamangs, i.e., Tamangs live on forests, so that the villagers cannot force the Tamangs to follow the rules, which makes the villagers face a dilemma and get frustrated.

Similarly, although the villagers do not want a stone quarry company to do business along Dhungakate Khola, they cannot forcibly stop it because the Tamangs are the major labourers at the quarry sites and they cannot find other income sources without it. They have requested Palung VDC and Makwanpur DDC by formal letters to stop quarrying, and also the permission of quarrying by that private company has been expired by last November. Quarrying activities, however, still go on right now.

With regard to river control, the villagers totally count on the engineers of the Study Team, they are pleased to agree to whatever plans the engineers will come up with. What they need from river control works are to secure their lives by training the rivers and to get opportunities to reclaim their land that is covered by the debris now. The status quo is that the villagers are reluctant to reclaim their land due to a high possibility of another debris flow - they believe so - and that they leave the buried land as it is.

The community development team of the Study Team made a brief explanation on what kind of scheme the engineers had in minds about river control. The villagers were so delighted when they heard about an idea of a dike road along the river course that would be constructed as a by-product out of river bed excavation works. Since they do not have a motorable road during the monsoon season, the villagers would like to have such a dike road. The idea of dike road, however, was not originally derived from the villagers, but they were informed by the Study Team, then they have started loving it.

What is meant by the irrigation proposed by the villagers is a little problematic. They basically want to have irrigation systems to their farmland located in the upland of hilly areas, as well as those in the flatland along the rivers where irrigation systems existed before the 1993 disaster. In the upland, even a water source for irrigation does not exist in most cases, even if it does, an irrigation system would not be realistic in terms of cost effectiveness. The Study Team informed the villagers that it would try to identify any possibility for irrigation as well as drinking water around the two villages, and to do so, the Study Team asked them for cooperation.

Tables 4.3.1 shows the transition of development priorities from February to May in 1996. The priorities at four different occasions are summarised in this table. The villagers' development priorities change as the degree of understanding in community development got deepened through a series of discussions with the Study Team. At the beginning, the villagers were nearsighted and concerned only with self interests, so their first priority was drinking water supply. As the discussions went on, they started thinking of the development of the community as a whole and they expressed more constructive perspectives for community development.

Because of geological difference, the priorities of Phedigaon and Phatbazar are slightly different in the early stage in February. Phatbazar is located at the downstream of

Phedigaon with much flatter land. The people in Phatbazar are much concerned about irrigation rehabilitation and flood control whereas the people in Phedigaon are worried about debris flow and landslide. In the end, that was in May, all the people in both villages have understood what are necessary for development of their communities and ended up with the same priorities.

5.2 Namtar/Tilar

5.2.1 General

Namtar and Tilar are in Namtar VDC, Makwanpur District. It takes one and a half hours from Hetauda by car if the access road, about 6.5 km between Chuniya on Tribhuvan Highway and the Namtar village, is motorable (it is usually not motorable during the monsoon season). The elevation of Namtar is around 800 to 900 m above the sea level, which makes Namtar special: Namtar can provide agricultural goods for Hetauda and other areas in the Terai in a timely manner.

The population of Namtar VDC is about 8,000 people according to the Central Bureau of Statistics in 1994, while Ward No. 2, which includes the Namtar village and the Tilar village, has about 820 according to the interview to a Namtar VDC secretary and a member of Ward No. 2 conducted by the Study Team (Namtar VDC does not have a census data right now). The community of Namtar that the Study Team focus may consist of mainly Ward No. 2 and some parts of Wards No. 4 and No. 7. Therefore, the total population of the community may be a little bigger than 820 people.

Regarding caste groups in Ward No. 2 in Namtar VDC, 47 % of the total population is classified as Brahmin and Chhetri, 42 % as Tamang, 9.5 % as Damai, and 1.5 % as Kami (refer to Table 5.2.1).

By the 1993 disaster, a commercial centre of Namtar, located along the right river bank of Manahari Khola was washed away, similarly other portions of the river banks of Manahari Khola were scoured and washed away as well. Nevertheless, fortunately no one died by the 1993 disaster. The number of fully damaged houses is 71, a rough estimate of the washed-away land made by the Study Team is about more than 25 ha.

5.2.2 Background of community

The people in Namtar have a strong community with good intention. Their minds are set on community development, and in the discussions no one gave a selfish opinion or tried to divert the discussion to fulfil his self interest. It seems that there are many people who are well educated and have generous minds. One of the reasons for the Namtar people to have such a matured community may be that they are so close in distance to Hetauda: Frequent contacts with Hetauda make the Namtar people well informed of and influenced by updated information, technology, civilisation, and so forth.

According to the village history, floods occurred every ten years or so, but the flood of July 1993 gave the biggest damage that the Namtar people have never experienced before. Quite a few houses (71 houses) were washed away by the 1993 disaster, which implies that there are many landless people there. Some are living with their relatives, some have built new houses in their land which have not been washed away, and some have been migrated to somewhere like Hetauda. Those landless people have difficulties to make their living. There are not many job opportunities in Namtar, they are basically willing to

go out of Namtar to look for a better life, but they know that a life outside Namtar is not easy without having enough money initially.

However, the Namtar people say that since a suspension bridge, a secondary school, a sub health post, and a VDC office have been constructed or under construction after the 1993 disaster, the inclination to migration has gradually disappeared. They look like having a hope and a strong will for development and being ready for participation in development activities.

It is observed in Namtar that there are several successful foreign aid activities. A typical example is the suspension bridge built by using a donation from Japanese private individuals. Another good example is the secondary school reconstruction with the help from multiple donors such as Swiss Disaster Relief Fund, Japanese privates, UNICEF, and some other organisations. (For more information on the school, the result of SLC is satisfactory and the school won several times awards in cultural and song competitions.) A typical example of people's participatory project is the construction of several wooden bridges that were constructed by 100 % by the people. Many previous small wooden bridges were washed away by the 1993 disaster.

5.2.3 Economic activities

Like in many other rural areas in Nepal, Namtar depends completely upon agriculture and no other industry can be found. Before the irrigation canals were destroyed by the 1993 disaster, many farmers had grown paddy as principal agricultural goods and maize, wheat, or millet as secondary. These days, however, cultivating paddy is not productive in much farmland in Namtar due to a lack of water caused by destroyed canals, though paddy production is still dominant. Because of pleasant weather and relatively affluent water, many kinds of vegetables and fruits are being produced, though their volumes are small.

Although there are plenty of opportunities for the farmers in Namtar to make money by selling their agricultural outputs to markets in Hetauda and the Terai area, due to a lack of a motorable road during the monsoon season, they cannot seize these opportunities. Especially, vegetables such as ginger and garlic, and fruits such as pears, lemon, and orange, can be sold by higher prices, but the farmers do not have a means to carry them to markets, so that they do not produce those goods systematically. It can be said in a sense that the people in Namtar have an inclination toward a self sufficient economy, losing many opportunities to make profits from the outer world.

5.2.4 People's activities

Probably because many farmers engage in paddy production and they are blessed with relatively amiable natural conditions, they seem to have more leisure time than those in other sites in the whole study areas where vegetables are the major outputs and water is relatively scarce.

Among other things, one of the reasons that Namtar looks better off is that there were many rich, well educated, and business-oriented people among the victims. Many of them are capable of recovering from the disaster themselves by establishing new business or finding jobs somewhere. They are not too much dependent on their land, so that they can quickly recover from having lost everything.

The people in Namtar are so cooperative that any community development project seems to be implemented with ease. Not only wooden bridges have been reconstructed completely by themselves after the 1993 disaster, but several temples in Namtar have been constructed by themselves. In addition, the school buildings have been constructed and expanded by themselves as well.

5.2.5 Problems

Through the survey and frequent visitations, the Study Team have been noticing many problems in the communities from major ones to minor ones. Among those problems, several major problems that may be paid attention to in the Study are described in the following. Please note that the order of presentation of each problem does not necessarily represent the degree of importance.

Basically Namtar is already in a good position to go for development, no serious problem can be found. The people are better off in many respects compared to the national average.

(1) No motorable road to Tribhuvan Highway during the monsoon season

The biggest problem in Namtar is the road to Tribhuvan Highway which is not motorable during the monsoon season. Based on the fact that the community of Namtar is unified, efficient, and ready to any participatory community development projects, the only obstacle that hampers development is the road. Every year the road is usually not motorable from July to December, that is a six-month brocade. When closed, the people walk along the trail for one and a half hours up to Tribhuvan Highway.

(2) Destruction of irrigation canals

The 1993 disaster destroyed many parts of the irrigation canals. The largest canal among the destroyed ones had been constructed by the ILO about a decade ago by which 50 ha of the farmland around the central portion of Ward No. 2 was irrigated. They said that their income had dropped down to 40 % of what they used to earn before the 1993 disaster.

(3) Bridges

In addition to the destruction of the road during the monsoon season, many simple wooden bridges are often washed away. Manahari Khola is lying through the centre of the Namtar community, dividing Ward No. 2 in which Namtar exists from Wards No. 7 and No. 4. The increased volume of flow in Manahari Khola in the monsoon season disturbs the people's interaction inside the community and with the outside world. When water flow is big in Manahari Khola, the suspension bridge funded by Japanese individuals is the only means to link the people one another.

(4) Lost land

Tremendous portions of the river banks of Manahari Khola were scoured and eroded by the 1993 disaster. Those land do not exist any more, forming parts of the river bed, there is no chance to get them back as they used to be. If the river course all along Manahari Khola in Namtar is fixed by river training works, those lost land may be reclaimed for agriculture, but it is not possible to live there.

(5) Contaminated water

Namtar has no problem to find appropriate water sources, but the people in Namtar often connect the pipelines with contaminated water sources. Besides, the existing water pipelines are not systematically arranged, so there is a huge loss in using the limited amount of pipelines.

5.2.6 Priorities of Community Development

The Study Team visited Namtar on April 30 to May 3, 1996, discussed the development priorities in Namtar, and the results of the discussions are described in this section. As explained in Chapter 4, various types of survey had been conducted prior to this period. The procedure to determine the ranks of development priorities in Namtar is also the same as that adopted in Phedigaon and Phatbazar. That is, women's group discussion, men's group discussion, and key informant interviews were carried out before the final overall discussion in which the development priorities were finalised with heterogeneous participants. Photos 5.2.1 to 5.2.4 show those group discussions.

One thing that should be noticed is that the Namtar people are so wise that they tried to discuss only the things that they could not deal with by themselves. That is, they have a clear idea on what they can do and what they cannot do themselves. They think that the things they cannot do themselves are the ones they should ask the JICA to do.

Development Priorities in Namtar and Tilar

- No. 1: Road Development
- No. 2: Rehabilitation of Irrigation Canals
- No. 3: Installation of Electricity
- No. 4: Protection of Syarse Khola
- No. 5: Reforestation

All the villagers in Namtar have acknowledged with confidence and faith that the road development by which vehicles can run all the year round was the most important thing to do right away for the development of Namtar. They think that with a year-round motorable road they can do anything they want for themselves after all. They also think that without such a road there is no use of whatever development projects take place in the village. The road development was unanimously selected as the highest priority by all the villagers.

Their agricultural production has been dramatically dropped by the destruction of canals caused by the 1993 disaster. They understand that benefits of rehabilitation will mainly go to landholders but they think that there will be indirect effects sufficiently on landless people, poor farmers, and the village as a whole. The ILO constructed a canal about a decade ago by which 50 ha of land in Namtar was irrigated, but it was destroyed by the 1993 disaster. There are other small irrigation canals around Namtar most of which need to be rehabilitated. A farmer complained that his annual income had been dropped down to 40 % of that he once earned with irrigation.

The Namtar people are basically fine without electricity, but if electricity is available, they know that their living conditions will be improved and that most importantly industrialisation will be realised. Like in many rural areas in Nepal, they are eager to have employment opportunities in their village. Without those opportunities, they have to go out of their village to find jobs in a large city such as Hetauda and Kathmandu. Most of

them are farmers who have no particular skills except for agriculture. If a small industry is founded inside the village, they can find jobs, accumulate some skills, and earn some cash income without taking any risk to go out of the village. For this, they understand that electricity should be available, to begin with.

They have a strong fear to another debris flow in the future. In their understanding, Syarse Khola is the major cause of the damages to their village in July 1993. They think that the debris carried from Syarse Khola hampered the flow of Manahari Khola. By the debris deposition at the confluence of two rivers, the flood in Manahari Khola was shifted toward the centre of the Namtar village with the water level being increased. Because of these phenomena, the river bank where the central function of Namtar was located right behind was fiercely scoured and washed away. They think that by good protection works along Syarse Khola their village will be secured.

They have realised that some reforestation measure is to take place. The Nepal Timber Corporation, authorised by the HMG/N under the Corporation Act, is cutting trees for timber in the forests around Namtar. In addition, a private company is extracting resin from pine trees around Namtar by paying some royalty to the HMG/N. Both activities gradually damage the forests and the Namtar people consider them to be stopped.

Table 4.3.1 shows the transition of development priorities in Namtar from February to May, 1996. Even in Namtar where the people are so unified as one community, the household sampling survey that was held at the very beginning of the Study indicates that the people asked for drinking water supply as their first development priority. A motorable road to Chuniya has been given higher priority from the beginning. At the end of a series of discussions, the people in Namtar have understood what are important for development of Namtar. The Study Team gave a lecture to the class 10 students at school in May, in which disaster management and development priority were discussed (see Photo 5.2.5). Quite surprisingly, the class 10 students gave the same order of development priorities as that given by the adults. This implies that the concept of development of Namtar community has been understood and prevailed all over the community.

5.3 Chisapani

5.3.1 General

Chisapani belongs to Ward No. 4 of Agra VDC, Makwanpur District. It takes about one and a half hours on foot from Phedigaon, Palung VDC. Even though Chisapani belongs to Agra VDC, Chisapani has a closer tie with Palung VDC in many respects than those villages in Agra VDC: The Chisapani people sell their agricultural outputs in Phedigaon and Phatbazar, receive medical treatment at a health post in Thanabazar, buy consumer goods, chemical fertilisers, seeds, etc., in Palung VDC, receive banking service from the ADB and other private banks in Thanabazar, commute to primary and secondary schools in Phedigaon and Phatbazar, and so on, so forth. As such all economic, financial, and social activities are conducted through the interaction with Palung VDC.

According to the Central Bureau of Statistics, the population of Agra VDC is about 6,800 in 1994. No statistical data available with respect to ward-wise population, the exact number of the population of Ward No. 4 where Chisapani resides is unknown, but they said that there are about 120 households in Ward No. 4. Assuming the average family members are 6.6 people per household in Ward No. 4, the total population of Ward No. would be about 800 people.

Based on the sampling survey by the Questionnaire (I) and the qualitative survey by the Questionnaire (II) carried out by the Study Team, Tamang is the major caste group in Chisapani with about 73 % of the total population. The second is Gurung with about 24 %, and the last is Chhetri with only 3 %. Table 5.3.1 shows the total population and the populations of caste groups. The total population in the table is about 500 which is different from 800 estimated above. This discrepancy is due to the fact that the population data in this table is based on the survey conducted in February while 800 people are estimated by the information collected in May. Since no census on Ward No. 4 is available, it is not known which figure is correct.

The elevation of Chisapani is around 2,000 m above the sea level, which is 300 m higher than that of Phedigaon and 700 m higher than that of Kathmandu. As the name of Chisapani implies (the literal meaning of Chisapani is "a place of cold water") that the temperature is cool and it is quite comfortable to live there.

The people in Chisapani live on vegetable farming. Cauliflower and potato are the major products harvested there. The difference of elevation brings about considerable profits from vegetable production: The price of cauliflower is very high because the Chisapani people can deliver their cauliflower at a particular period during which other cauliflower producers cannot provide it to Kathmandu.

The life in Chisapani, however, is not easy. All houses and farmland in Chisapani are located along the steep hillside which is gradually slid and eroded every monsoon season. The people's lives are quite in danger and they are basically anxious to migrate to a safer place, but they do not have enough money to do so, thus they feel like being forced to stay there.

By the 1993 disaster, four people, a single family in Chhap of Ward No. 4, were killed and 32 houses were fully damaged. They said that they could not even move out of their houses for evacuation due to the downpour and the fierce surface water flow.

5.3.2 Background of community

Nobody knows exactly when the first settlers started residing in Chisapani. Around a half century ago, a couple of clans of Tamang immigrated into Chisapani that form the majority of population these days. They said that until cauliflower and potato became the major income sources about twenty years ago, the people had been moving in and out frequently. Since they had been able to make profits from cauliflower and potato, their living standard had been improved and migratory minds had gradually disappeared.

The people in Chisapani have experienced major disasters such as landslide and earthquake at least four times in this century. Those disasters occurred in 1933, 1954, 1970, and 1993. The 1993 disaster is the biggest disaster. Since they experienced the 1993 disaster, they have been very anxious to migrate to a safer place, like Hetauda in the Terai. But they know that without enough money in their hands the life in other place will be disastrous. Therefore they unwillingly remain at the same place in Chisapani.

They know that their lives will be in danger against another landslide, and think that nobody, even the JICA, can stop a future landslide. If someone gives them enough land for agriculture and houses somewhere for free, they are pleased to move there to start up a new life. In fact, 50 out of 120 households in Ward No. 4 are making a plea to the HMG/N for free houses and land in the Terai.

Lots of houses and land have been slid away, there are a number of landless people in Chisapani. Fourteen households have been given free houses in Banaspati, Hetauda. Only one household, however, has been permanently living there, and all others are frequently returning to Chisapani. Even though they were victimised by the 1993 disaster, many of them still have some farmland. They come back to Chisapani and cultivate their land to make living. The living condition there is extremely terrible due to low wages, few job opportunities, no tap water, no electricity, and no farmland. Those people who have not been given free houses also cannot go out of Chisapani due to a lack of sufficient money and stay in Chisapani.

Tamang and Gurung have a similar life style and both prefer to live with forests in hilly areas rather than to live in flat areas and run business. They have difficulties in living without farmland and forest. Under the condition that their land is gradually sliding away and nobody can stop it, they are in trouble to maintain their lives.

The Study Team recently tried to plant 40 seedlings of mulberry trees in Chisapani. The village people were asked to participate voluntarily in this activity, most part of which should be done by the people, and they did it quite nicely. What the Study Team did was to provide mulberry seedlings and technical advice only. In this activity they have proved that they are ready for community development with people's participation.

Not many INGO's and foreign assistance activities are observed in Chisapani, maybe it is because Chisapani is located at a remote area. So far, only one INGO, World Education, is found in Chisapani, but it simply has given some money to run literacy class in Chisapani, not acting directly themselves on the site.

5.3.3 Economic activities

As often in other rural areas in Nepal, agriculture is the only one industry in Chisapani. The villagers are mainly producing cauliflower, potato, and maize. Cauliflower is the reason that Chisapani is better off than the national average and the richest village in Agra VDC. Other villages in Agra VDC have no good access to markets while Chisapani has an easy access (only one to one and a half hours on foot to Phedigaon).

Chisapani is heavily connected with and depend economically and socially upon Phedigaon and other villages in Palung VDC. They sell their agricultural products in Palung VDC.

Cauliflower and potato with chemical fertiliser have made Chisapani richer for the last twenty years. Indigenous potato had been cultivated for a long time, but since a new variety of potato was introduced to Chisapani, intensive potato production has been conducted. In recent years, carrot is being produced, though it does not generate income yet.

5.3.4 People's activities

The major caste groups are Tamang and Gurung who are farmers and like to stay in hilly areas. Besides agriculture, they do no other particular activities to be noticed. Generally speaking, they are not keen for education and commercial activities. One indicator is that there are only three students in Chisapani who have passed the SLC (School Leaving Certificate) so far.

Many Chisapani people frequently go back and forth between Chisapani and Phedigaon for so many reasons that are for sales, police, medicine, telephone, postal service, marketing, school, banking, entertainment, and so on.

There are few people's group activities observed. Only activity of the people is the rehabilitation works of the road to Phedigaon.

5.3.5 Problems

Through the survey and frequent visitations, the Study Team have been noticing many problems in the communities from major ones to minor ones. Among those problems, several major problems that may be paid attention to in the Study are described in the following. Please note that the order of presentation of each problem does not necessarily represent the degree of importance.

(1) Landslide and pessimism

Chisapani is situated at very dangerous places. All houses and farmland are on steep slopes in the hillside. The villagers recognise this dangerous situation and are so pessimistic that they incline to migrate to somewhere, hoping the HMG/N or some foreign donor will give them free houses and farmland around the Terai. Unless some protective measures have been taken, they have no incentive to develop their community because all their efforts for development will be slipped away and wind up with nothing by landslides.

The pessimism could be the most formidable obstacle toward development. The people are sick of disasters and tend to give up all hopes in Chisapani. Something that can wipe the pessimism out of the villagers' minds should be done first so that all development projects coming afterward will go well.

(2) Lost land

Unfortunately the lost land slid away by the 1993 disaster will not be able to be regained whatever measure it will take. It seems that all possible farmland has been cultivated and no additional arable land is left in Chisapani. This implies that those who lost their land have no chance to regain the same amount of land in any future in Chisapani.

(3) Frequent destruction of road to Phedigaon

The road between Chisapani and Deorali, which is located near the border line for Agra and Palung VDCs, goes horizontally across the steep hillside many portions of which are frequently slid during the monsoon season and required to be repaired. The road is not motorable all the way to Phedigaon at all.

(4) Lack of drinking water

The number of water pipe lines are not efficient and they are not arranged in a systematic way. The tapstands are mostly located at rich and/or influential persons' houses and neighbours come to ask for use. The water sources are usually far from their houses and the water quantity of each water source is small. A well designed water supply system with pipelines and tanks seems to be necessary to solve the problem of water shortage.

5.3.6 Priorities of Community Development

The Study Team visited Chisapani on May 5 to 7, 1996, discussed the development priorities in Chisapani, and the results of the discussions are described in this section. As explained in Chapter 4, various types of survey had been conducted prior to this period. The procedure to determine the ranks of development priorities in Chisapani is also the same as that adopted in Phedigaon/Phatbazar and Namtar/Tilar. That is, women's group discussion, men's group discussion, and key informant interviews were carried out before the final overall discussion in which the development priorities were finalised with heterogeneous participants consisting of male and female, rich and poor, young and old, landlord and landless, and so on. Photos 5.3.1 and 5.3.2 shows those group discussions.

Development Priorities in Chisapani

- No. 1: Landslide Protection Works
- No. 2: Income Generation & Employment Opportunities
- No. 3: Road Improvement Works
- No. 4: Installation of Electricity
- No. 5: Increase in Supply Capacity of Drinking Water
- No. 6: Establishment of Health Post

The villagers in Chisapani think that any kind of development measure is meaningless without the protection of their farmland. They are so irritated and at the same time frightened by gradual loss of farmland every year. They know that their lives are in danger: They are likely to be washed away by landslide at any moment in the future. They also think that nothing can stop landslide, so that they are in fact pessimistic for the development of their village.

They need employment opportunities in their village. To find a job, they usually have to go to Palung or Kathmandu. Without having any concrete idea on what kind of industry is possible to establish in Chisapani, they are asking for job opportunities.

As the matter of fact, at the beginning of the discussions, they gave the highest priority to development of motorable road which led to the Palung area, but the Study Team explained its technical and economic feasibility and concluded that a motorable road was impossible. They still, however, insisted to have a road which was to be well maintained with gabions and bioengineering works. At present, they have their own users' group to maintain the road to Phedigaon which is frequently destroyed in the monsoon season.

Their fourth priority is given to electricity. The Study Team was not able to perceive any necessity of electricity, rather they seemed to want to obtain a similar quality of life as in Phedigaon where electricity is available. No particular eagerness for electricity was found.

Basically there is not enough drinking water supply right now. They suggested to install a new water pipeline to a new water source. Also they suggested to install water tanks for efficient use of water. Since there is not a perennial river or stream that maintains year-round water flow, almost all villagers rely on the existing water pipelines the number of which is not enough to sustain a convenient life style. It seems that the tapstands in Chisapani are all located at or near rich and/or influential people and that they let the poor neighbours use their tapstands for the sake of mercy.

Health post is their sixth priority. In their village, there are no health care facilities. Even in Agra VDC to which Chisapani belongs, there is only one sub health post which has a lower grade of service in health care than a health post has. At present if someone gets sick, he is taken to a health post in Tanabazar, Palung VDC, which is on Tribhuvan Highway.

Table 5.3.1 shows the transition of development priorities given by the villagers from February to May, 1996. Like in the other study areas, drinking water was the first priority by the household sampling survey where the people did not have a mind of community development and sought to fulfil only self interest. Through a series of discussions, they have come to understand the importance of community development and stop asking for unrealistic demands like a motorable road.