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# Integrated Rural Accessibility Planning in Nepal

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***Guideline***



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# Integrated Rural Accessibility Planning in Nepal

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# Foreword

The ILO has a long history of technical cooperation with Nepal. Initially this cooperation was focused on community works primarily in the irrigation sector but more recently it has been in the rural road sub-sector in close collaboration with the Department of Local Infrastructure and Agricultural Roads, DoLIDAR, in the Ministry of Local Development.

With support from the Asian Development Bank, ILO provided support to strengthen the institutional and technical capacity of DoLIDAR for sustainable and decentralised development of rural infrastructure. Additionally the ILO assisted in developing a national strategy for the implementation of rural infrastructure development activities in accordance with the decentralised policy of the Government. This strategy has been documented in a series of guidelines on district level transport planning, work norms and technical specifications.

The preparation of district master plans following the technical guidelines and the development of local capacity to carry out rural transport planning and infrastructure works were the first steps towards the implementation of the national strategy. DoLIDAR, with ILO assistance, have already developed a process for Transport Master Planning. This process has been well institutionalised and is being followed by most districts and donors.

Nepal enacted the Local Self-Governance Act in 1999. This act provides a legislative basis for the decentralisation process to go further in practice. To support this process in general and to build the capacity of the districts in particular with respect to the rural infrastructure development and improving rural accessibility, the ILO and DoLIDAR agreed to collaborate on developing a tool for local governments to identify rural infrastructure priorities using a participatory approach. This tool is commonly known as Integrated Rural Accessibility Planning or IRAP. A generic IRAP process developed in other Asian countries has been adapted to Nepalese conditions and will be implemented through the district authorities. The IRAP activities build on the earlier work on transport master planning and bring the district transport planning to a higher level by

incorporating several additional sectors, enhancing participation and consensus building activities and bringing in poverty alleviation and employment creation factors.

This document sets out the different steps of the IRAP process as developed in Nepal. It is developed to assist DoLIDAR in preparing and finalizing Nepali versions of the guidelines and manuals. Further experiences with IRAP in Nepal will be

fed back to refine the planning procedures. The Nepali documents will eventually differ from the procedure as described in this document. This document therefore only serves as a “snap-shot” in the development of IRAP in Nepal. The IRAP tool will be continue to be modified in the years to come so that it adequately suits local conditions and is mainstreamed in all districts of the country.

Various stakeholders were involved in the course of developing this publication. The authors would like to acknowledge the contributions of various technical staff from the districts and DoLIDAR. Without the field work and suggestions of the DDC and DoLIDAR staff in the pilot and demonstration districts this document would not have been a possibility. We extend special thanks to Ganesh Ghimire who was the main consultant during the first phase of pilot testing and the development of Nepali specific IRAP procedures. Thanks must also be extended to Shushil Chandra Tiwari and Arjun Poudel of DoLIDAR who provided invaluable assistance and suggestions during the second phase of demonstrating IRAP in Nepal.



*Part of the IRAP team warming up for the T1 Workshop*

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# Acronyms

AD	Accessibility Database
AI	Accessibility Index
DDC	District Development Committee
DoLIDAR	Department of Local Infrastructure Development and Agricultural Roads
DTO	District Technical Office
HMGN	His Majesty's Government of Nepal
IMT	Intermediate Means of Transport
INGO(s)	International Non-Government Organisation(s)
IRAP	Integrated Rural Accessibility Planning
LGP	Local Governance Programme
LSGA	Local Self-Governance Act
MoLD/MLD	Ministry of Local Development
NGO(s)	Non-Government Organisation(s)
NPC	National Planning Commission
PDDP	Participatory District Development Programme
SOR	Services, Opportunities and Resources
VDA	Village Development Area
VDC	Village Development Committee



# 1 Introduction



Integrated Rural Accessibility Planning (IRAP) is a local-level planning process for improving access in rural areas through a participatory and bottom-up approach. It provides an objective basis for local development planning and facilitates needs-based project identification and prioritisation. As an area-based planning tool, IRAP focuses on identifying the real access needs of the community and prioritizes interventions and projects on a social and economic basis. Starting from a broader perspective of area development planning, it focuses on the planning of individual projects that improve the accessibility of rural people in general. Within the existing local-level planning system in Nepal, IRAP has been adapted to the country's planning framework and can be used as an objective tool to complement the existing local-level planning system. This Guideline describes how the generic IRAP tool has been adapted to the country's context.

## Decentralisation and Local-level Planning

In 1962, the country was administratively divided into 75 districts, 14 zones, 3600 villages and 18 municipalities with a view to better manage the Nepali State for attaining the development aspirations of the Government and the demands of the people. Later, the districts were grouped together into five development regions so that the development process and achievements were regionally balanced. The *Local Administration Act of 1965* and the *Decentralisation Act of 1982* successively provided more authority to lower entities and entrusted them with limited responsibilities for local development. Peoples' participation in development at local-level was viewed more as a political agenda. After the political change of 1990, through the provision in the Constitution of 1991 for self-governing by authorities at the district and village levels, the decentralisation process in the country made a big leap forward. The latest step in this sequence of decentralisation is the enactment of *Local Self-Governance Act, 1999 (LSGA)*, which is currently under implementation. It is the local authorities, composed of 75 District Development Committees, 58 Municipalities, and 3,915 Village Development Committees, through which *local self-governance* is promoted in the country.

The central government is structured as a council of ministers at the top with a downward structure of line ministries and departments extending their branches and activities into the regions, districts and VDCs/ Municipalities. The developmental role of this structure is to provide (or to facilitate) various services to people to meet their basic, social and economic needs and facilitate tapping the country's development potentials. Rural development is in part concerned with providing services, opportunities and facilities that people need, such as health care centres, education, provision of drinking water and access to markets. The provision of these goods and services is generally governed by government standards and policy targets which are periodically revised. In Nepal's case these are reflected in its Five Year Plans. For example Nepal's 10<sup>th</sup> Five Year Plan aims to provide piped water to at least 85% of the population and to increase school enrolment for 9-16 year olds to 90%.

The DDCs and the VDCs are the local bodies made up of directly elected local representatives. The secretariats of these entities have officials deputed through the central government as well as hired locally. The DDCs and VDCs have an extensive role in local level development planning in general and rural infrastructure development planning within the district or village areas in particular. The LSGA makes the categorical provision that the DDCs should prepare *Periodic Plans* for the development of the district by comprehensively taking into consideration the situation, needs and potential of the district, and aspiration of the local people. The Periodic Plan is to cover a period of, at least, five years. On the basis of this Periodic Plan the districts are to prepare *Annual Plans* for development investment. There are sets of governmental guidelines for helping the local authorities undertake these planning exercises<sup>1</sup>. In addition to the Annual Plans and Periodic Plan, the districts are also encouraged to prepare a vision plan of the concerned district in a participatory manner. This vision plan, generally termed the *Strategic Development Plan*, basically defines 20-year development goals in different sectors for the district. The Annual Plan is extracted from Periodic Plan, which in turn, is extracted from Strategic Development Plan.

The practice of preparing Periodic Plans and drawing Annual Plans from it is a rather recent phenomenon in the districts. This practice has been promoted by PDDP/LGP by proposing a specific procedure (14 steps) for local-level planning. The same procedure is adopted by the Local Self-

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<sup>1</sup> For example: Village Development and Self-help Programme Operation Guidelines, 2052, HMGN, Ministry of Local Development; Approach for the Development of Agricultural and Rural Roads, 1999, HMGN, Ministry of Local Development, DoLIDAR; VDC Grant and Social Security Programme Operation Guidelines, 2058, HMGN, Ministry of Local Development; Social Mobilisation Practical Book, 2058, HMGN, Ministry of Local Development; Guidelines for the Periodic District Development Planning, 2058, HMGN, National Planning Commission.

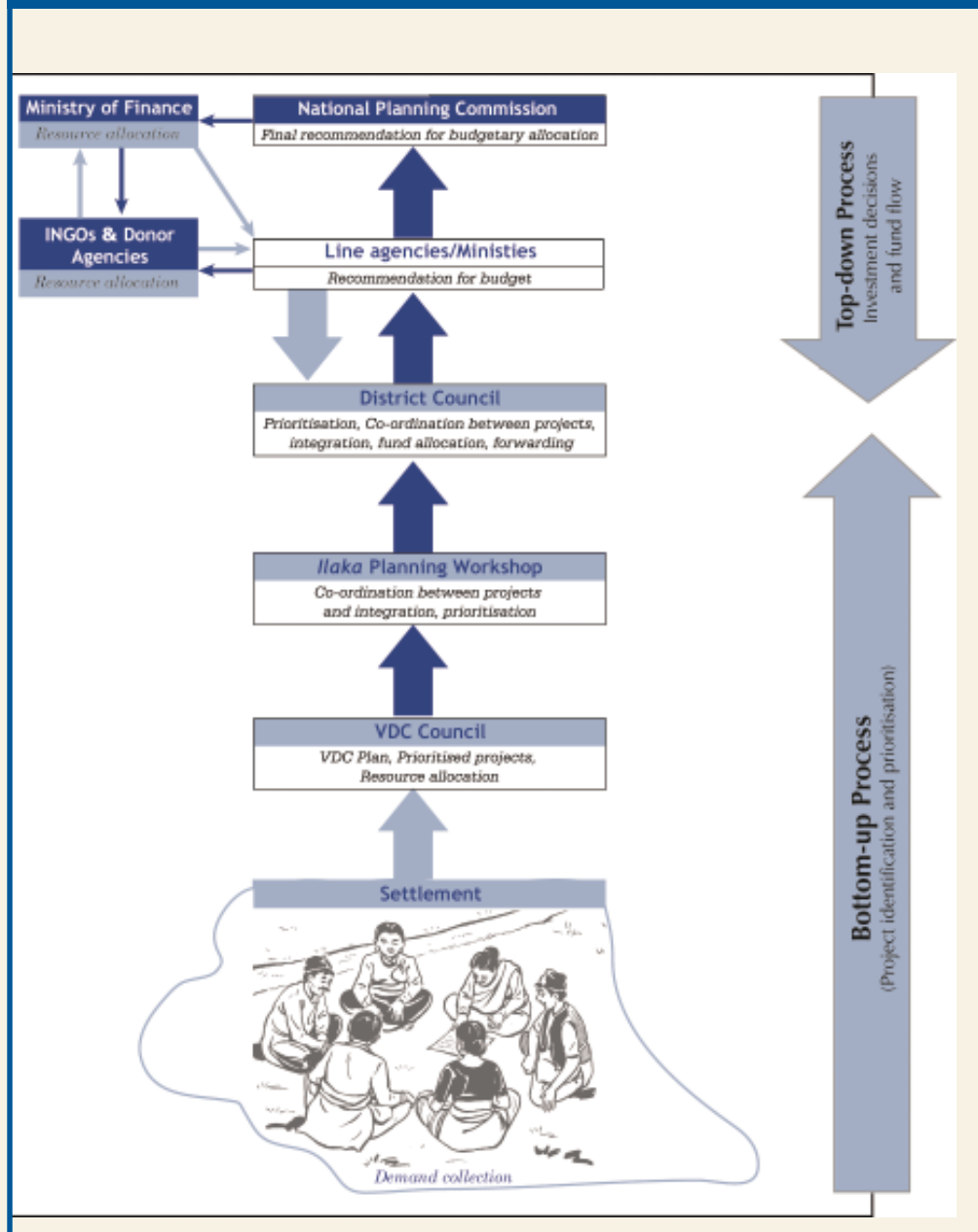
Figure 1: Deciding on project priorities at DDC level.



Governance Regulation act of 1999. The planning steps are presented in Annex 1. Not all the districts have, as yet, gone through the Periodic or Strategic Planning process. Only very few districts have prepared Strategic Development Plans and mostly through the help of consultants, NGOs or donor project support. During the periodic and annual planning cycle a bottom-up process of identifying demands is usually undertaken by the district authorities through a series of participatory meetings organised at settlement level. This process of demand identification starts at the *Village Council* for prioritisation and resource allocation, continues at *Ilaka* level (comprising a number of VDCs) in *Ilaka Workshops* and cumulates at the *District Council* through the District Development Committee. The District Council discusses the projects it receives from the DDC for prioritisation, co-ordination, integration and resource allocation. This results into the *District Plan*.

The District Plan includes individual projects and programmes, with a cost estimate and order of priority for implementation. Budgetary allocations are either made by the DDC itself from its own sources or requests for funding are forwarded to government line agencies or donor agencies. Government line ministries send their sector plan to the National Planning Commission which makes recommendations for budgetary allocation to the Ministry of Finance for the forth-coming fiscal year. In addition, requests for selected project funding are also forwarded from line ministries or the Ministry of Finance to donor agencies. The following schematic diagram illustrates the top-down and bottom-up processes in the existing planning system.

Figure 2: Top Down and Bottom-up Planning Process in Nepal



## Local Infrastructure Development Policy 2004

A new Local Infrastructure Development Policy was approved in late 2004. This policy covers infrastructure for local transportation, irrigation and river control, small hydro power and alternate energy, drinking water, sewerage and sanitation, housing, building and urban development, management of solid waste and social infrastructure including government offices, health, education etc.). The policy aims at increasing the participation of the local people in physical and social infrastructure development to enhance the social services, economic opportunities and mobilization of local resources. The policy is based on the following principles:

1. Infrastructure development is devolved to the local government agencies;
2. Institutional strengthening and capacity building of local government agencies;
3. People's participation in local infrastructure planning is key and local resources and skills will be mobilized for infrastructure development;
4. Government and donor agencies involved in local infrastructure development will network and coordinate.



*Rural Transport in Nepal*

## Transport and Accessibility in Rural Areas

Traditionally, it was assumed that an improved rural road network would help promote economic growth to rural areas by providing greater and easier access to economic opportunities. Simply put, greater access would

help increase agriculture and household production which would in turn help alleviate poverty in rural households. Based on this theory therefore, road investment in the past received high priority in many countries, with heavy investment directed into road construction. However, it has been subsequently observed that the creation of rural roads alone have not



*Rural Transport in Nepal*

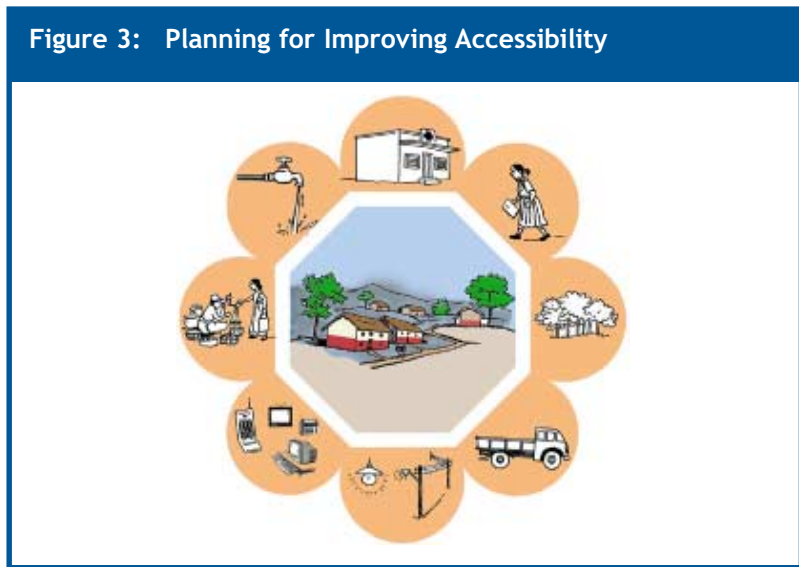
brought about the desired economic development in rural areas. In part this has been due to the fact that roads were built with very little understanding of how rural communities use them resulting in a large part of their travel and transport needs being unmet by the new rural road networks. The travel and transport needs of rural communities have very particular characteristics and only a small fraction of these needs are met purely through roads and motorised transport. While rural roads are undoubtedly important, rural transport planning needs to take into consideration the entire spectrum of transport needs of rural households and identify interventions that best address these needs.

Through the practice and the experience in local-level development planning it has now been gradually recognised that, somehow, roads alone are indeed not enough for promoting development in rural areas. A



*Lack of access affects many communities*

planning perspective broader than *planning for rural transport* is necessary. Experiences indicate that a perspective of planning for *improving accessibility* is likely to serve the purpose better, because it is improved access to goods, services and facilities that people need for alleviating their poverty and for the State to achieve economic and social development goals. In improving access of people to the goods, facilities and services they need, travel and transport is just one important element. There are others, equally important, which need to be addressed by the planning system, such as the distribution and quality of goods and services.



## Defining Accessibility

*Accessibility* can be defined as the ease or difficulty of reaching or using a facility or service, and therefore, concerns both the mobility of people and the availability of services. Mobility is associated with transport infrastructure as well as the means of travel and transport. Accessibility of people in general can be improved either by enhancing mobility through the development of transport infrastructure and services or by making the needed facilities and services closer and easier to reach. Locating facilities at a closer distance and improved management of service provision are key elements.

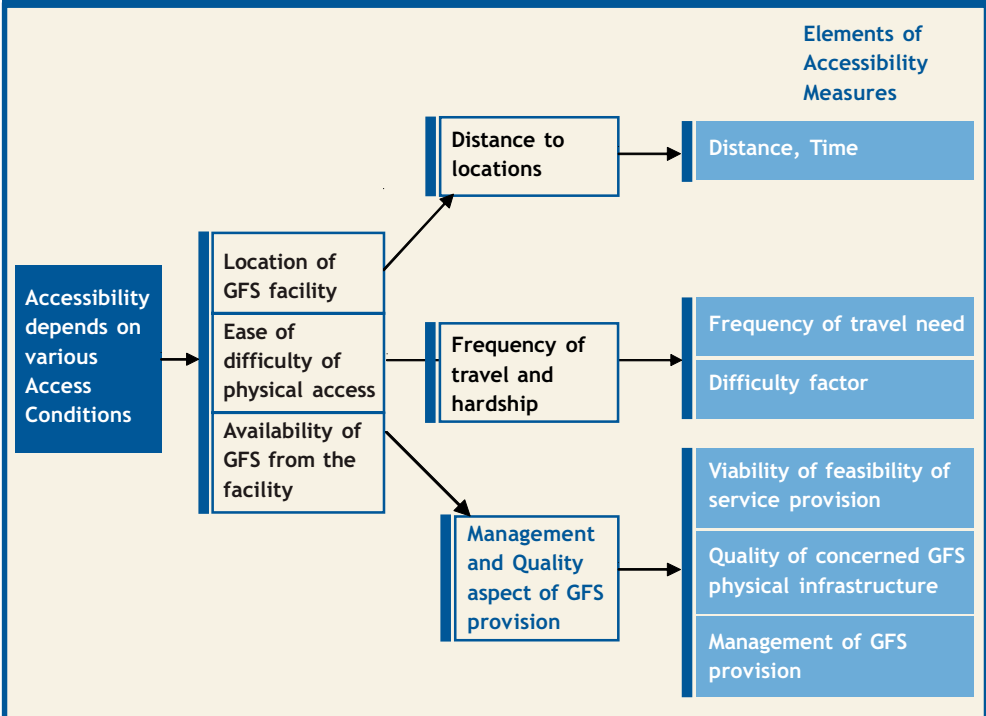
It is important to point out that *accessibility* is regarded as multi dimensional. While it is generally acknowledged that it is used to explain and address physical barriers, within wider poverty and development theory, accessibility can also refer to culture, gender, age, political and financial



Rural transport in Nepal

barriers. For example, having physical access to a school may not be enough if a family is unable to afford to send its child there, or cultural considerations are such that it is not acceptable for that child to attend. These other barriers must also be addressed to ensure that full access is available to all goods, facilities and services.

Figure 4: Elements of Accessibility



IRAP has been developed to identify and address the physical barriers to access. In this context therefore the accessibility of any rural settlement depends on the access conditions of its people to the goods, services and facilities that they require. In this case, accessibility depends on two factors: the location and availability of goods, services and facilities and the ease or difficulty of physical access by the people. Access conditions can be objectively assessed through various factors such as travelling time, the quality aspect of goods and service provision, the frequency of travel, and travel mode and conditions. Measurements of accessibility can be done accordingly. In some sectors this will largely depend on travel and transport conditions while in other sectors accessibility mostly depends on non-transport aspects such as the quality and availability of services.

Thus, *accessibility* is a function of objectively quantifiable elements such as:

- ❖ distribution of settlements
- ❖ size of settlements
- ❖ distance and travelling time
- ❖ quality of transport infrastructure
- ❖ modes of transport
- ❖ frequency of travel
- ❖ cost of travel
- ❖ distribution of facilities and services
- ❖ availability of goods and services
- ❖ quality of goods and services

Accessibility of rural households can therefore be assessed objectively by evaluating the above elements and consolidating them into accessibility indicators. Different sectors will have different indicators as different elements of accessibility will have to be considered depending upon the characteristics of the sector and the settlements under consideration.

Accessibility of people can be improved through interventions that will reduce travel time, ease travel, improve the distribution of facilities and improve the quality of goods and services in an integrated fashion. This is the basic conceptual framework of Integrated Rural Accessibility Planning (IRAP).

## **IRAP: Planning for Improving Accessibility**

As a planning tool IRAP aims at improving the accessibility of rural people to services, goods and facilities. It considers the following aspects: a) improving physical access to a desired facility or service, b) bringing the facility or service closer to the people and c) improving the quality of a

**Figure 5: Walking is the main mode of transport in rural Nepal**



facility. In aiming to improve physical access, IRAP considers variables such as improving transport infrastructure (including rural roads, trails, pedestrian bridges) and means of transport (including public transport and low-cost means of transport). The IRAP tools, therefore, have adopted an integrated approach to rural transport planning and maintain a broader perspective of rural development.

First of all, IRAP identifies the access problems of selected rural settlements. Then it endeavours to find out appropriate solutions to improve the access of people to the services, goods and facilities that they require. It is the people themselves who know best their accessibility constraints, therefore, IRAP takes a participatory approach following a bottom-up process in assessing the problems and identifying appropriate solutions.

Figure 6 summarizes the entire IRAP process as one output table. This table is used during different workshops at both VDC and DDC level to identify priority settlements and projects for improving rural accessibility.

Accessibility problems at the local level are assessed objectively by using *Accessibility Indicators (AI)*, which are composed of various elements and

**Figure 6: Summaries the entire IRAP process in one table**

Access Needs	Priority Villages for Improving Access	Interventions by Sector				
		Education	Health Centers	Water Supplies	Roads	Trails and Footbridges
Primary Education	B, C, E, F, H	- new school in B - additional classroom in E			- improve road to E	- improve trail to F - footbridge between H and C
Primary Health Care	A, J, M, K, H		- assign full-time nurse to A - build new health center in M		- improve road to K and C - construct new road between M and H	- footbridge between H
Domestic Water Supply	T, J, K, L, M			- improve water supplies in T, J, K, M		- improve footbridge to L
Markets	D, V, J, O, Q				- improve road to D - improve road to J - construct road to Q	- footbridge to V - improve trail to O
Village Center	D, V, L, K, E				- improve road to D - improve road to L - construct road to E	- footbridge to V - improve trail to K
District Center	U, K, N, G, E				- improve road to U - improve road to N - construct road to E	- footbridge to G - improve trail to K
Transport Services	H, K, F, Y, X				- improve road to H - improve road to F - construct roads to K, Y and X	
	Intra Sector Top 3 Priorities:	1. new school in B 2. additional classroom in E	1. assign full-time nurse to A 2. build new health center in M	1. improve water supplies in T 2. improve water supplies in M 3. improve water supplies in J	1. Improve road to E 2. Improve road to Y 3. Improve road to D	1. footbridge to V 2. improve trail to K 3. footbridge between H and C
	Inter Sector Priorities	low	medium	low	high	medium

indicate the severity of accessibility problems. In their simplest form, average travelling time from all the individual households in the settlement to a service or facility may make up the AI of that settlement to that particular sector.

## Gender, Caste and Accessibility in Nepal

For IRAP in Nepal to be truly participatory, accessibility needs to be measured for everyone, both women and men from all socio-economic and caste backgrounds. The disparity between men and women in Nepal is recognised by HMGN and consequently highlighted in the 10th Plan. It is recognised that in Nepal there is a growing ‘feminisation’ of poverty. Gender biased practices related to the access to and control over resources as well as the limited access to services such as health care and education have lead to greater poverty amongst women. Consequently, they are identified as the prime target group for achieving the country’s overall poverty alleviation and human development strategies. Ensuring that the IRAP process is inclusive of both women and men from all castes will help to address some of these imbalances and provide services that deliver to everyone.

It can not be stressed enough the importance of dealing with excluded groups in this process. It may mean extra training of the DDC and VDC officials. This can be done by including relevant community groups, INGOs or NGOs working in the area to come and work with traditionally

**Figure 7: VDC representatives analyzing rural access conditions at VDC level**



excluded groups (such as women and youth and some caste groups) and talk about the importance of inclusion of marginalised communities in a participatory process and have these groups support the IRAP training process and help organise inclusive participatory community meetings. This inclusion will take time to root itself in the DDC and VDC institutions but a concerted effort needs to be made to ensure that groups representing all classes and castes are represented in the group meetings that look at and discuss access to goods, facilities and services.

## **IRAP: Exercise and Steps**

The complete IRAP exercise comprises an orientation workshop, three participatory workshops and a number of field and office activities between the workshops. At the District level a half-day orientation workshop is held, this introduces the IRAP tools and raises awareness at the district level of local level integrated planning. A first workshop, the T1 Workshop, is conducted for VDC level representatives usually the VDC secretaries. The main objective of the Workshop is to introduce IRAP and train the VDC representatives in data collection and mapping. The duration of the workshop is 2-3 days. The second workshop, the T2 Workshop, analyzes the accessibility data and identifies priorities at the VDC level. The duration of the workshop is about 3 days. Participants will come from the VDCs and the different sector agencies involved. A final workshop, the T3 Workshop, is organized at the DDC level to analyze the data and results in the VDC prioritization in order to set district level priorities. Participants will come from the District level offices and representatives. The duration of this workshop is also 2-3 days. In between the workshops, VDC representatives will undertake additional activities in the field and the office such as data collection, mapping, data verification and data analysis. The entire IRAP exercise will be spread over a period of 4 to 6 months. The main objective of the IRAP application is to identify investment priorities at the VDC and DDC level to improve access of the rural population to basic, social and economic goods, facilities and services based on the real access needs of the population and identified in a bottom-up and participatory manner. A second objective is to develop the capacity for rural access and integrated infrastructure planning at both VDC and DDC level. It is therefore imperative that all IRAP activities are implemented by DDC and VDC people. Local consultants may be used to guide the process and provide training inputs if these agencies do not have sufficient capacity.

During the T1 phase, local planners and enumerators collect data on rural accessibility in settlements and prepare maps visualizing accessibility. The data and maps are then used during the T2 phase to assess access prob-

lems and identify village and sector priorities for improving access at VDC level. Once the needs have been identified, planners will then identify and select interventions to improve access. Similar activities will be carried out at DDC level during the T3 phase which ends with the formulation of project proposals for financing by the district, national line agencies or donors. The identified prioritized interventions will be screened according to existing sector guidelines.

In the current system of development planning, the local authorities, DDCs in particular, being the converging point between the top-down and bottom-up process, have an instrumental role to play in local-level planning. Therefore, IRAP is applied within the context of the district development planning process. It needs to be emphasized however that IRAP activities take place in all municipal rural areas. VDCs will identify and prioritize their needs while the DDC will set priorities across the different VDCs and sectors and identify interventions to improve accessibility in priority areas.

For applying IRAP in the district planning process the following detailed steps are recommended.

#### **Orientation workshop**

Preparation and definition of scope prior to starting T1

#### **T1 (Information Collection)**

Step 1: Data Collection

Step 2: Data Compilation

Step 3: Accessibility Mapping

#### **T2 (Analysis, Calculation of Access Indicators and Prioritisation at VDC Level)**

Step 4: Calculation of Access Indicators and sector priorities

Step 5: Identification and prioritisation of intervention, prepare VDC level projects

#### **T3 (Analysis, and Prioritisation at DDC Level)**

Step 6: Identification of priority VDC in each sector

Step 7: Identification of inter-sector priorities

Step 8: Identification and prioritisation of District Level projects

These steps, T1, T2 and T3 are explained in detail in the following chapters.



*IRAP User's Manual (in Nepal)  
Version 1*

## 2 Preparation and Defining Scope



Before using the IRAP tools in the context of local level planning it is necessary to understand the existing planning procedures and practices. Although sometimes referred to as a planning process, IRAP consists of a number of planning tools and is not a stand alone planning process as such. IRAP tools are used within a standard planning process and strengthens it by introducing needs based methods that identify access needs and prioritizes access interventions.

It is the local authorities such as the District Development Committees (DDCs), Village Development Committees (VDCs) and Municipalities that have the main responsibility for local-level development planning in Nepal. Even when international agencies and donors are preparing development projects it is usually done with and through the local authorities.

IRAP can be used at district and village level. In applying IRAP it is necessary to first identify the objective of applying the tools. Will they be used in plan formulation or will the tools be used for the identification of project priorities to be funded under a sector programme or rural development project?

International agencies may also wish to use IRAP for identifying and prioritising investment projects in a district or in an area within a district. In such a context, the international agencies would have to work together with the local authorities.

Any agency using IRAP to identify access needs and prioritize access improvement projects needs to first define the geographical area to be covered by the planning process. This may be a delineated settlement, a ward, a VDC, a group of VDCs or a whole district. The application of IRAP will first focus on the individual settlements to identify communities' needs and prioritize projects to improve accessibility at that level. Using IRAP as a method in the formulation of district development plans requires the inclusion of all the settlements in the district.

**Figure 8: Households are often spread out on a settlement**



A DDC or a VDC will have a number of individual settlements spatially spread out over an area, these settlements are usually identified as the wards of a VDC and from hereon this Guideline will regard the ward as the lowest level of settlement. Sometimes though it may be necessary to further divide the ward into sub-wards as households are again geographically spread out.

It is necessary to identify the different sectors to be addressed e.g. education, health, market access, drinking water, transport, communication in the planning exercise. Sometimes this will depend on the access needs of the rural population at large while sometimes the exercise is limited to a specific sector. If IRAP tools are being used for example for prioritising rural water supply sector sub-projects then the sector is already pre-defined.

If IRAP is used in the context of general rural development planning it is necessary to first identify the access needs of the rural population. General information about, and some primary knowledge of, the area concerned usually indicate the sectors to be addressed in the planning exercise. It is important however that the IRAP exercise is limited to those sectors where physical access of rural households to basic needs and economic and social services is an issue. It may be necessary to first conduct a household survey to identify sectors where accessibility is an issue.

Sectoral line agencies will often have defined policy targets and standards for their sectors. A national governmental policy for example could be to have at least one primary school within half an hour walking distance

from each rural settlement. Similarly, a DDC may have a goal of providing safe drinking water within 15 minutes walk from each house. Information on standards or policy targets in the relevant sectors should be collected prior to implementing the IRAP exercise.

IRAP is an inexpensive and easy to use planning process. However it does require some resources and an agency intending to use the IRAP tools would need to allocate some minimal resources to the planning exercise such as the planning official implementing the planning process and resources for data collection and analysis and training.

**Figure 9: Discussing standards and targets at the DDC level**





# 3 Data and Information Collection



## (T1: STEP 1)

Having defined the scope for using IRAP in a specific local-level planning task, the first step is to collect information and data about the settlements concerned. A first activity consists of collecting area-specific or sector-specific development plans at the district level. A review of these documents will show what kind of data is already available.

Specific data that is required for “the accessibility analysis” at a later stage includes data on demography and settlement patterns, the distribution of services and facilities, transport infrastructure, transport patterns, infrastructure quality, perceived access problems and access improvement priorities. This data needs to be collected if it can not be retrieved from existing data-banks, reports and documents.

Data collection is expensive, time consuming and tedious. It is therefore important to limit the data collection to an absolute minimum. The more data that can be retrieved from existing sources the better. Ideally, data collection would not be required at all and the IRAP tools would be used to analyze existing data. However, by and large this is not the case and some data collection will be necessary to carry out the IRAP analysis.

### Secondary Sources of Information

There are two sources of potential information. First, the District Development Committee Secretariat typically has a significant amount of data, information and maps of the district. In addition, line agencies with representation in the district also have information and data relevant to their sectors. Demographic data and maps of different scales and composition are also available from the Bureau of Statistics and the Topographical Survey Branch in Kathmandu. These sources of information need to be checked prior to data collection.

Information on standards and policy targets in different sectors should be collected from sources such as the national policy documents, local policy documents and various policy studies and strategy reports. There might also be specific policy targets at the local or regional level.

## Primary Sources of Information

Information from secondary sources is not usually sufficient for assessing peoples' access needs and identifying interventions for improving them. Settlements need to be visited to obtain information directly from the communities themselves. The people living and working in the settlements are the best source of primary information and this information should be used to verify and complement the secondary data. In particular, information pertaining to travel times, travel patterns, access difficulties and the perceived quality of services should be obtained from the people themselves. Key informants including, VDC officials, VDC Secretaries, school teachers and community leaders can provide valuable information in this context. Particular questionnaires need to be developed for collecting the necessary information from the settlements concerned.



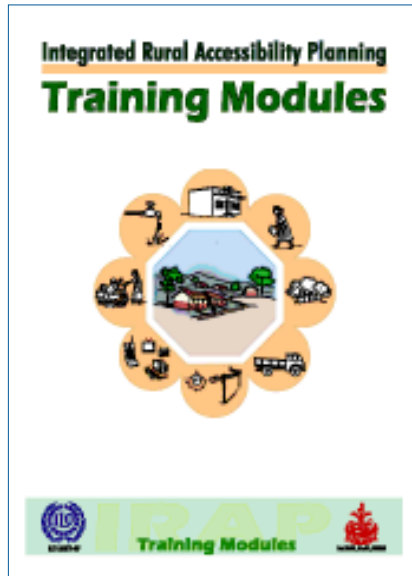
In case sectoral planning standards and targets do not exist, the local population could also be consulted for their views as to learn their preferences. A commonly accepted preference may be regarded as a proxy standard in a particular sector.

## Developing the Survey Instrument

Once it has been decided what primary data needs to be collected in the settlements, the planning team needs to develop the survey instrument. This basically comprises the questionnaire for recording data during the village interview. A sample questionnaire is attached as Annex 2. This questionnaire could be used or modified to collect the necessary information on accessibility at settlement level.

## Implementing the Survey

People need to receive some training to implement the survey. They need to be instructed on how to organize the village meeting, conduct the village interview and record the information using the questionnaire. The level of training depends on the past experiences of the interviewers. A short standard training course has been developed for this purpose from hereon referred to as the T1 Workshop. Special training modules have been prepared for this purpose.



*IRAP Training Modules*

Trained interviewers will visit the settlements to conduct the village interviews. Prior to the interview they will gather a group of people knowledgeable about the village and inform them about the purpose of the interview. The interviewers will ask the questions formulated in the questionnaire and give all interviewees time and opportunity to respond. It will be important for the interviewers to manage the village groups appropriately, especially when it comes to the communities identifying village sector priorities. It will be important for the interviewer to form focus groups to enable the villagers to work together to agree on these village sector priorities. Techniques on helping people come to decisions on priorities are many and varied but can include for example, the use of group exercises which ask individuals to score sector priorities using stones on paper (which indicate a particular sector). There will be times when the focus groups will need to be divided by gender or by socio-economic criteria to ensure that full participation by all the community is achieved. Most of all it is important that the interviewer collects the “village view” and that he or she try to involve all key informants during the interview. If responses are not understandable, inappropriate or lack the necessary information, the interviewer should have the skills to ask additional questions to deduct the information he or she needs.

At the end of the interview, the interviewer checks if his questionnaire is duly completed and thanks the people for their time and efforts.



# 4 Data Compilation



## (T1: STEP 2)

Data is collected for the accessibility analysis, in which local planners identify access needs and set priorities for improving access. Data and other information collected from the secondary and primary sources needs to be organised before it can be used.



*Access to Medicines*

Raw data usually comes in different forms and formats, in hardcopies or in electronic versions. Different data sets need to be compiled in a properly structured database for local planners to be able to analyze the accessibility situation in a selected area. If possible, data should be displayed in graphs, tables, and charts so that it can be easily understood.

The table below is an example of data organized for analysis in the “access to primary health care” sub-sector. The aggregated settlement data is used during the T3 Workshop to identify priority VDCs where access to primary health care needs to be improved.

**Table 1: Access Characteristics Rashuwa District (Primary Health Care)**

VDC	Number of Settlements	Number of House holds	Average Travel Time to Primary Health Care Center	Where do People go to Access Pharmacy	Average Travel Time to Pharmacy (in minutes)	Where do People go for Dental Services	Average Travel Time to Dentist (in minutes)
Bhorle	20	1058	61	Jibjibe	92	Trishuli	120
Bridim	7	179	161	Syaphrubeshi	309	Trishuli,	403
Chiline	10	281	100	Chauhattar	204	Trishuli	213
Dadagaun	9	372	88	Betrabeti	231	Trishuli	240
Dhunche	5	340	70	Dhunche	71	Dunche	71
Gatlang	2	368	99	Chauhattar	180	Dunche	150
Goljung	4	243	41	Chauhattar	64	Dunche	233
Haku	7	493	227	Dunche	411	Dunche	411
Dhaibung	9	976	52	Jibjibe	37	Trishuli	
Lahrepauwa	17	961	60	Kalikastan	70	Kathmandu	
Langtang	5	84	20	Syaphubeshi	690	Kathmandu	690
Ramche	10	387	105	Kalikastan	169	Trishuli	54
Saramthali	11	764	107	Jibjibe	238	Trishuli	222
Shyaphru	6	344	101	Syaphrubeshi	97	Dunche	165
Thulogaun	8	285	19	Betrabeti	144	Trishuli	144
Thuman	3	218	62	Syaphrubeshi	190	Dunche	190
Timure	3	84	45	Syaphrubeshi	320	Dunche	320
Yarse	15	812	96	Jibjibe	249	Trishuli	281
<b>Total</b>	<b>151</b>	<b>8249</b>	<b>85</b>		<b>187</b>		<b>226</b>



All the “raw data” derived from the settlement survey should be organised in a database, which is a collection of data files organized in some logical manner. The organised data together with the accessibility maps will be further analysed to make a preliminary situation analysis of the area concerned. The focus of this analysis is on understanding the access needs and patterns of rural people and on the identification of access problems and priorities. The ultimate goal is to improve the access that rural people have to the required goods, services and facilities by identifying appropriate and effective access interventions.

A database needs to be prepared at DDC level using simple computer software such as Microsoft Excel. All VDC settlement data needs to be entered in this database which should be able to generate DDC and VDC aggregates. The national IRAP team has prepared a standard database which can be used in all districts in Nepal. It is important that the database enables the user to print out both DDC and VDC level data. VDC level data will be given to VDC representatives and will be used during the accessibility analysis. The overall database is referred to as the *Accessibility Database* or *AD*.

People will have different access needs in different sectors. Furthermore, there will be various levels of inaccessibility within the sectors. This needs to be assessed for all relevant sectors. Access needs as perceived by the villagers may differ from what is generally acknowledged as access needs by sector specialists. Before analyzing the data it is necessary to prepare *accessibility profiles* and *accessibility maps* of the areas concerned. Accessibility profiles consist of *accessibility indicators* which are individual measurements of access to a specific good, service or facility. Accessibility maps display accessibility data and indicate where people live and where they go to satisfy their basic, social and economic needs.



# 5 Accessibility Mapping



## (T1: STEP 3)

Accessibility maps are graphical representations of access conditions at VDC and DDC level. Accessibility maps help in the analysis of the accessibility situation in a given area and can be used in the identification of access problems and access priorities. Two types of maps are produced during accessibility planning. The *base map* which shows the distribution of settlements and existing infrastructure such as roads, bridges, schools, health centers and markets and the *priority map*. This map shows the priority areas for access interventions. The *base map* is produced before the data analysis while the *priority map* is prepared after the analysis is done. Both maps are produced at VDC and DDC level.



*Preparing VDC base maps*

## VDC Accessibility Maps

Accessibility planning begins with the creation of the *base maps*; showing the different VDCs and indicating the location of the households, service facilities, transport infrastructures and topographic features. Sometimes such a map exists but in most cases it is necessary to prepare one from scratch. The map should be simple showing only basic physical features, settlements, service facilities and transport networks. Maps should not contain too much information as it will make them difficult to read. They should be large enough (at least A0 size) so that people can see the information from a distance during meetings. VDC maps should be prepared manually using the IRAP mapping techniques.

The *base maps* need to be prepared by representatives of the VDCs before the T2 activities start. Maps can be discussed and validated during the T2 Workshop. VDC representatives will receive instructions and see a demonstration on how to produce these base maps during the T1 Workshop. The IRAP team needs to bring topographic maps of the DDC preferably with a 1:25,000 or 1:50,000 scale. VDC boundaries should be identified before or during the T1 Workshop after which the DDC map can be cut into VDC parts. The VDC representatives will then prepare the VDC *base maps* in the period between the T1 and T2 Workshops. The mapping procedure at VDC level is rather simple and consists of the steps outlined below. It is important that these maps are produced by the VDC representatives themselves as mapping is part of the overall capacity building process. It will also enable the VDC representatives to better grasp their geographical area which will help them during the analysis.



*Beginning of a VDC base map*

Preparation of the VDC *base map*:

- Step 1: Draw a base map on tracing paper using the VDC map handed out during the T1 Workshop. If the VDC map is too small it will be necessary to enlarge the image.
- Step 2: Delineate the VDC and settlement boundaries and identify the different settlements.
- Step 3: Colour the map using a variety of light colours to identify the different settlements. Colouring procedures will be demonstrated during the T1 Workshop.
- Step 4: Identify existing infrastructure and service centers on a plastic transparent overlay.
- Step 5: Finalize the map with the appropriate names, legend, orientation etc.

The VDC *priority map* will be prepared towards the end of the T2 Workshop after priorities have been identified. Priority maps consist of a copy of the base map with a plastic overlay identifying settlement priorities with different coloured marks representing different sectors. The priority map informs the reader in which sector investments should be made to address priority access needs.



*Preparing VDC priority map*

## DDC Accessibility Maps

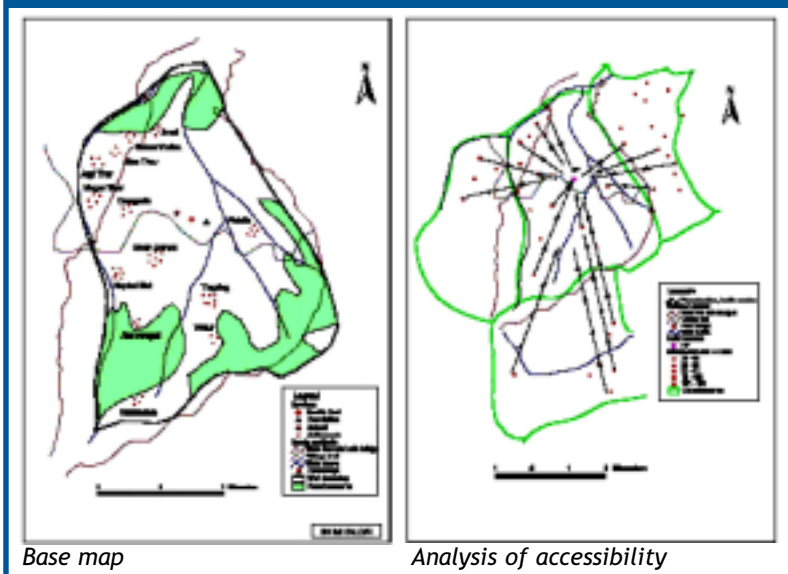
District accessibility maps will help in identifying and visualizing district priorities during the T3 activities. District maps will have less detail compared to VDC maps and will only be used for “higher level” interventions to improve access to the transport system, secondary education, health care and markets.

Districts having GIS facilities can prepare digital *base maps* for use at DDC level. Often these maps are already available at the DDC secretariat. Alternatively, base maps can be prepared by hand using existing maps as a base.

The accessibility maps together with the accessibility data will be used in the accessibility analysis at DDC level. Access information from the Accessibility Data Base can be visualized on overlays to show transport patterns and areas of influence. This can be done in different ways. For example, it is possible to draw circles around service centres identifying users of particular services and facilities. Another option is to draw radial lines of lengths proportional to Accessibility Indicator from the settlement to a facility or service.

District *priority maps* will display access improvement priorities at district level.

Figure 10: Sample of digitized Base Map and analysis



Different kinds of maps are available in Nepal as shown in the table 2.

**Table 2: List of base maps usually available in district headquarter or Kathmandu.**

MAP	DESCRIPTION	SOURCE
District Map	1:125,000 scale with contours and physiographic features. VDCs are delineated, some service facilities,	DDC in any district and Topographical Survey Division, Department of Survey, HMGN, Kathmandu IPDS/MLD/HMGN
Topo Sheet (FINNIDA Map)	1:25,000 scale with 2 metres contour interval and physiographic features.	Topographical Survey Division, Department of Survey, HMGN, Kathmandu
Digitised Topo Sheet	1:25,000 scale with 10 layers of information	Topographical Survey Division, Department of Survey, HMGN, Kathmandu
Sectoral Maps	District Maps with sectoral features (for example location of schools).	Sectoral agencies present in the district
District Map with VDC boundaries	Digitised as well as hard copies in different scales	GIS unit IPDS/MLD/HMGN and some of the DDCs
District Maps with primary information	Digitised as well as hard copies in different scales	GIS unit IPDS/MLD, SNV and some of the DDCs
Service Centre Map	1:125,000 scale map showing main trails, service centres, suspension bridges and main settlements	Suspension Bridge Division, MoLD, HMGN
District Map with road network	Road networks with planned and completed roads	Department of Roads, HMGN Topographical Survey Division,
VDC Map	1:10,000 to 1:45,000 scale with VDC boundaries and main settlements	Department of Survey, HMGN, Kathmandu



# 6 VDC Level Access Indicators



## (T2: STEP 4)

T2 activities take place at the VDC level. The main purpose is to identify investment priorities which address the real access needs of the rural communities. VDC representatives will analyze collected data, calculate access indicators, draw accessibility maps, identify priority villages for improving access and prepare project outlines. These activities are described in chapters 6 and 7.

### Accessibility Indicators and Profiles

A crucial step of IRAP is the calculation of Accessibility Indicators or AIs. AIs are used to identify investment priorities and compare settlements with each other and with national averages, standards or targets.

The data in the Accessibility Database (AD) can be used to calculate AIs. Local planners and technicians will analyze the AD and determine levels of access within the different VDCs. This will be followed by the identification and prioritization of investment needs, both at the geographical and sectoral level.

Accessibility depends on both *proximity* and *mobility* which can be measured with AIs and the results indicate the degree or severity of an access problem. AIs measure inaccessibility or the lack of access, a higher indicator implies poorer access.

ADB

AI

Village Priorities

Project Priorities

Average travel time to reach a facility or service is usually taken as a proxy for mobility and proximity. The latter depends on the distribution of facilities, services and goods while mobility depends to a large degree on

the extent and physical condition of the transport infrastructure network and availability of transport services.

AIs also include a *quality* element which relates to two quality issues, firstly the condition and supply of infrastructure aspects of a facility and secondly to the delivery of services. For example, if a local primary school does not have an adequate number of classrooms or if a health post does not have medicines then access by people to the facility may be good but access to primary education services or health care services as such may still be poor.

In Nepal, two AIs are calculated; one based on time ( $AI_{TT}$ ) and one based on quality ( $AI_Q$ ).

### 1) $AI_{TT} = f(\text{Households, Travel Times})$

The first is a physical/time accessibility AI, which is the AI of a settlement in relation to a particular facility, good or service. This AI is therefore a function of the number of households residing in the settlement and travelling distances. Households are taken as absolute figures, while travel-times are scored as per national norms and standards to produce time scores.

$$AI_{TT} = HH * TT_{SCORE}$$

Figure 11: Access to Quality Health Services



For example, travel-times to primary schools are defined by the following intervals to produce the Travel Time Score -  $TT_{SCORE}$ .

Travel time to primary school	$TT_{score}$
0 – 30 minutes	0
31 – 60 minutes	1
61 – 90 minutes	3
More than 90 minutes	5

Table 3 is an example of the time based  $AI_{TT}$  to primary schools in Borhle VDC in Rasuwa District. As explained earlier, the first step is to convert the real time into the slab to determine the  $TT_{SCORE}$  and multiply it by the number of households which gives the time based index of each settlement within Borhle VDC.

**Table 3: Time based Accessibility Index -  $AI_{TT}$  of primary schools in Borhle VDC of Rasuwa**

Name of Settlement	Number of households (HH)	Travel Time (Minute)	$TT_{SCORE}$	$AI_{TT}$ (HH * $TT_{SCORE}$ )
Jyanglang	40	30	0	0
Gairigaun	44	30	0	0
Sarsiu	140	45	1	140
Sarayu	100	15	0	0
Betang	91	30	0	0
Sisneri	38	72	3	114
Ghaletol	46	62	3	138
Khalchet	66	30	0	0
Gairitol	65	45	1	65
Bhorlegaun	105	18	0	0
Bhadauredada	31	15	0	0
Tallo Rupsepani	36	30	0	0
Chiti	55	30	0	0
Aapchaour	43	30	0	0
Badahare	22	30	0	0
Bahdaure (Paudeltol)	21	15	0	0
Tinkhopre	19	15	0	0
Bridim	21	15	0	0
Devkotatol	14	15	0	0
Dhuseni	61	30	0	0
Total	1058			457

Table 3 indicates that household numbers can play a dominant role in identifying travel time access problems. Sarsiu has an average travel time of 45 minutes but due to the large number of households in the settlement it scores the highest  $AI_{TT}$ . However, the second and third priority settlements: Sisneri and Ghaletol have much smaller household numbers but score the maximum  $TT_{SCORE}$  so they too become priority settlements for investment due to their high  $AI_{TT}$  scores.



*Access to electricity can not be measured with travel times*

## 2) $AI_Q = f(\text{Households, Quality})$

The second AI looks at both the physical quality of the infrastructure and the quality of service provision. They are measured to produce one quality Accessibility Index Quality, the  $AI_Q$ . As it is not possible to consider each and every quality variable separately they are grouped into three scores: poor, moderate and good quality score. These score are devised on the basis of national norms, standards and policy targets. The variables are grouped into three categories scored; 0 indicating no problem, 1, indicating a moderate problem and 3 which indicates a severe problem. To calculate the  $AI_Q$ , the score is multiplied by the number of households. The higher the  $AI_Q$  is, the greater the need to address the quality aspects of this good, facility or service. An example of quality scores is shown below.

$Quality_{SCORE}$  is defined by the following intervals:

Combination of variables	$Quality_{SCORE}$
Permanent building, sufficient teachers and furniture, availability of drinking water, toilet and playground	0
Permanent building, but lacks two or more of the other quality aspects	1
No permanent building or only one factor is present.	3

**Table 4: Method of calculating the Quality Accessibility Index - Bhorle VDC, Rasuwa District**

Name of Settlement	No of HH	Permanent building	Adequate teacher	Drinking water facility/ Toilet/ Play ground	Sufficient Furniture	Quality <sub>SCORE</sub>	AI Quality = HH * Q <sub>SCORE</sub>
Jyanglang	40	Yes	Yes	Yes	Yes	0	0
Gairigaun	44	Yes	Yes	Yes	Yes	0	0
Sarsiu	140	Yes	Yes	No	Yes	1	140
Sarayu	100	Yes	Yes	Yes	Yes	0	0
Betang	91	No	No	Yes	No	3	273
Sisneri	38	Yes	Yes	Yes	Yes	0	0
Ghaletol	46	Yes	Yes	Yes	Yes	0	0
Khalchet	66	Yes	Yes	No	No	1	66
Gairitol	65	No	Yes	No	No	3	195
Bhorlegaun	105	Yes	Yes	Yes	Yes	0	0
Bhadauredada	31	No	No	No	Yes	3	93
Tallo Rupsepani	36	Yes	Yes	Yes	Yes	0	0
Chiti	55	Yes	No	Yes	Yes	1	55
Aapchaour	43	Yes	Yes	Yes	Yes	0	0
Badahare	22	Yes	Yes	Yes	Yes	0	0
Bahdaure (Paudeltol)	21	Yes	Yes	Yes	Yes	0	0
Tinkhopre	19	Yes	Yes	Yes	Yes	0	0
Bridim	21	Yes	Yes	Yes	Yes	0	0
Devkotatol	14	Yes	Yes	No	Yes	1	14
Dhuseni	61	Yes	Yes	Yes	Yes	0	0
Total	1,058						836

Settlements are compared with each other using  $AI_{TT}$  and  $AI_Q$ . A comparative analysis enables the VDC planner to identify priority settlements where physical access, quality of services or both aspects need to be improved.

Sometimes, access needs do not really depend on aspects of distance and travelling time. For example, providing better access to irrigation or electricity will depend entirely on whether or not a project for such purpose is viable, not so much on the access needs of the people. Physical distance is of little relevance here. Still people need access to electricity and irrigation water and these sectors should be included in the accessibility analysis. The standard procedures and practices for setting priorities for individual projects will differ. The current IRAP applications in Nepal however do not look into these two sectors.

**Figure 12: Explaining the Accessibility Indicators**



For practical purposes it is useful to prepare a table which can be used in calculating and presenting AIs for different sectors at the settlement level. This table is referred to as the *Accessibility Profile* and it summarizes the accessibility situation of a settlement with respect to the different sectors.

## Local Priority

The Local Priority score,  $LP_{SCORE}$  identifies the perceived community need for improving access in a particular sector. Similar to the calculation of the AI, the local priority is converted into slabs to determine each  $LP_{SCORE}$

The local priority is identified during the T1 data gathering stage. The score are detailed below:

Local Priority	Score
Community has identified the sector as a top priority for improving access	3
The community has identified the sector as a second or third priority for improving access	1
The community has not identified the sector amongst the top 3 priorities for improving access	0

Table 5 shows the  $LP_{SCORE}$  from the different settlements in Bhorle VDC, Rasuwa District for access to primary schools according to the Local Priority score from the box above.

**Table 5: Method of converting local priority into score**

Name of Settlement	Number of households (HH)	Rank of local Priority that people perceived	LP <sub>SCORE</sub>
Jyanglang	40	6	0
Gairigaun	44	5	0
Sarsiu	140	1	3
Sarayu	100	4	0
Betang	91	4	0
Sisneri	38	1	3
Ghaletol	46	1	3
Khalchet	66	5	0
Gairitol	65	4	0
Bhorlegaun	105	5	0
Bhadauredada	31	5	0
Tallo Rupsepani	36	4	0
Chiti	55	4	0
Aapchaour	43	3	0
Badahare	22	4	0
Bahdaure (Paudeltol)	21	4	0
Tinkhopre	19	5	0
Bridim	21	5	0
Devkotatol	14	4	0
Dhuseni	61	6	0
<b>Total</b>	<b>1,058</b>		

## Validation of Accessibility Profiles, Identification of Projects and Quality Interventions

The Accessibility Profile is then taken back to the communities during participatory meetings and must be explained to them in simple terms to receive their feedback. This can be done easily with the help of the Accessibility Maps. It is important that people understand the level of development in their area and based on this understanding, are able to recommend projects for improving rural accessibility.

Participatory meetings at settlement level are a key element in the bottom-up planning process. VDCs should take a lead role in organizing these meetings and the role of the VDC representative (often the VDC secretary) is that of facilitator and as facilitator he or she does not bias the decision making process of the settlements. The local people themselves should analyse the access situation in their area with facilitating help from the VDC representatives and identify the most appropriate and needed interventions for improving access to goods, facilities and services. It is

thus important that the Accessibility Indicators, the Accessibility Profile and the Accessibility Maps are discussed with the communities. It must be assured that a representative group of people attends the VDC meeting (from different socio-economic groups, gender, caste, ethnic groups and community based special interest groups at the village level). Organisation of the meeting should be such that everyone gets an opportunity to express his or her opinion. Again, as in the data collection and village prioritisation process in the T1 stage, different techniques will need to be employed by the VDC facilitators to ensure full participation with separate focus groups formed which allow for free discussion between different members of the village (eg. gender and caste).

First of all, the VDC chairman should present the information about the settlement to the meeting. The meeting should then review the information about their own community, propose corrections if necessary, and agree upon the number of households affected by poor accessibility, the level of access problems, specific access conditions in relation to various goods, facilities and services and average travel times to facilities and services.

This process could result in a revision of the AIs and Accessibility Profile of the area. The maps may also have to be updated as a result of the discussions. This participatory process is important as it validates the information collected as well as the accessibility analysis. The VDC meeting should agree upon priority investments that will improve accessibility in the settlement. Finally, the meeting should identify project ideas to improve rural access. The development of these ideas into concrete project outlines is the topic of chapter 7.



## Priority Sectors at VDC Level

Prioritising settlements by sector enables the VDC to see which settlements are most in need of some form of intervention and why. This is done on a sector basis and it may be necessary to set priorities across sectors.

Using data collected in the T1 stage and analysed in the T2 stage, tables can be drawn up by sector which summarize settlement access scores.

Table 6 is an example of the access situation and sector priorities for primary education in Bhorle VDC of Rasuwa District. The sector AI is calculated by multiplying the Total Score column 'E' by the Number of HH, column 'A'

**Table 6 : Calculation of Sectoral AI for Primary School in the Rasuwa District**

Name of Settlement	No of HH(A)	TT <sub>SCORE</sub> (B)	Q <sub>SCORE</sub> (C)	LP <sub>SCORE</sub> (D)	Total Score (E)	Sector AI = A * E
Jyanglang	40	0	0	0	0	0
Gairigaun	44	0	0	0	0	0
Sarsiu	140	1	1	3	5	700
Sarayu	100	0	0	0	0	0
Betang	91	0	3	0	3	273
Sisneri	38	3	0	3	6	228
Ghaletol	46	3	0	3	6	276
Khalchet	66	0	1	0	1	66
Gairitol	65	1	3	0	4	260
Bhorlegaun	105	0	0	0	0	0
Bhadauredada	31	0	3	0	3	93
Tallo Rupsepari	36	0	0	0	0	0
Chiti	55	0	1	0	1	55
Aapchaour	43	0	0	0	0	0
Badahare	22	0	0	0	0	0
Bahdaure (Paudeltol)	21	0	0	0	0	0
Tinkhopre	19	0	0	0	0	0
Bridim	21	0	0	0	0	0
Devkotatol	14	0	1	0	1	14
Dhuseni	61	0	0	0	0	0
<b>Total</b>	<b>1,058</b>					<b>1,965</b>

The  $TT_{SCORE}$  and  $Q_{SCORE}$  are based on the same intervals used in calculating the AIs earlier in T2, while the  $LP_{SCORE}$  identifies the perceived community need for improving access in a particular sector.

The sum of the settlement scores (1965 in the example above) can be used to compare sectors with each other and identify priority sectors within the VDC.

Therefore the VDC inter-sector settlement priority score is the following:

$$\text{Sector}_{SCORE} = HH * (TT_{SCORE} + Q_{SCORE} + LP_{SCORE})$$

The higher the sector score, the higher the priority for intervention in that particular sector. Producing these tables for all the sectors will enable the VDCs to easily identify both sectors and settlements with the most urgent access needs. It will enable the VDCs to assess access needs across the sectors thereby coming up with integrated access solutions that address the settlement needs across the sectors.

# 7 Initial Project Description



(T2: STEP 5)

## Identification and prioritization of Interventions

Priorities for improving access need to be translated into projects and other interventions.

Figure 13: Project identified at local level



Having identified the access problems in the different sectors during the T2 Workshop, the meeting should discuss and agree on the most appropriate and realistic solutions to solve the access problems. The solutions could consist of a single intervention or a combination of interventions necessary for improving accessibility in a particular sector or across sectors. For example, a new school building with additional teachers can help improve access to primary education. A footbridge connecting two villages can reduce the travel time to health services and markets simultaneously.

VDC representatives should first identify the possible interventions to improve access before deciding on priorities. Interventions need to be discussed and agreed upon, and this decision will depend on the causes of poor access, the number of people affected by poor access, the type of interventions and the costs and benefits of each intervention. As mentioned above, the interventions may consist of a single activity or could be composed of multiple ones. The activities should be described in more detail to enable the VDC representatives to formulate project outlines. This process should initially be undertaken on a sector by sector basis but needs to be integrated before deciding on a final list of projects.

The prioritized interventions now need to be endorsed by a participatory meeting at VDC level. The list of interventions and initial priority ranks has to be reviewed by a broad group of VDC participants.

The final list of interventions contains the best solutions to improve accessibility of settlements as perceived by the VDC itself. Projects typically include activities such as the constructing of a trail, repairing a school building, arranging for health personnel in an existing health post, improving a road, assigning additional teachers to a school, repairing a water supply etc. These activities will then need to be written up using a



simple standard format, so that they can be submitted as proposals for funding or inclusion in an investment plan. Termed Project Formulation, this is the final activity under the T2 component.

## Preparing a Project Outline

VDCs should prepare a *Project Outline* which describes the project and includes some key information necessary for approval and implementation. Key information will include information on the justification, scope and cost of the activity, time required for implementation, choice of technology, project inputs, operation and maintenance. Project briefs will be prepared for all prioritized interventions and will together comprise an action plan for improving access in a particular VDC. It may be necessary to ask for support from technical personnel from the DDC or the line agency but generally speaking the forms are uncomplicated and can be completed by VDC representatives trained in the T2 Workshop. Different kinds of Project Outline forms are in use in Nepal to collect village demands and lists of the projects from settlements or wards. An example of a possible form is given in Annex 3. The IRAP procedure does not describe a particular form but suggests that if possible, established forms will be used or adapted. The VDC representative should work with the local people and the VDC officials in completing the Project Outline.

**Figure 14: Implementing rural access improvement works**





# 8

## Analysis of Priority VDCs, Inter-sector and District Level Priorities by the DDC



(T3: STEP 6,7 and 8)

### Background

T2 activities are focused at the VDC level. VDC representatives calculate Access Indicators for different villages comprising VDCs and identify priority villages, sectors and projects for improving access within the VDC. An analysis across VDCs does not happen during T2. The outcome of the T2 activity is a list of priority infrastructure investments for each individual VDC. Whether a Primary School in VDC A is more important than a Primary School in VDC B is not discussed.

During the T3 activities, DDC representatives will compare VDCs with each other and identify priority VDCs for interventions by sector. An analysis across all VDCs making up the District will take place during this time. DDC representatives will compare VDCs with each other and identify priority ones for interventions by sector. Secondly they will look across all the sectors and rank which sector is a priority for investment in that particular District.

DDC officials representing the Local Government and Line Ministries will work together during a T3 Workshop to analyse the VDC data and set priorities and discuss national norms and standards to be applied.

The steps in T3 cover:

1. Prioritize VDCs for sector investment
2. Identify and prioritize sectors for District Level investment
3. Identify and prioritize District Level investment
4. District Level mapping

### Identification of priority VDCs for each sector.

The sector AI of the VDC reflects the access situation of that particular VDC in relation to a particular sector. For example, Table 6 (in Chapter

6) shows that for access to Primary Education in Bhorle VDC the sector AI = 1,965. DDCs now compile the sector AI for each VDC and then rank them from high priority to low priority. A high AI shows a high priority for investment in that particular sector for that particular VDC. Table 7 below shows the access situation based on the AI of the all the VDCs in Rasuwa District for access to Primary Education. In this case the top three VDCs with a high AI are:

1. Bhorle VDC = 1,965
2. Saramthali VDC = 1,713
3. Laharepauwa VDC = 1,272

These would then be viewed by the DDCs as three VDCs which have severe accessibility problems to Primary Education.

**Table 7: Access situation of Rasuwa district in Primary Education sector**

VDC	A Number of Settlements	B Number of Households (HH)	C Percentage of settlement having primary school	D Accessibility Indicator (AI) of Primary School	E = D ÷ B Average Access Index
Bhorle	20	1,058	45	1,965	1.86
Bridim	7	179	71	302	1.69
Dadagaun	10	281	50	922	3.28
Dhunche	9	372	67	117	0.31
Gatlang	5	340	80	97	0.29
Goljung	9	368	89	268	0.73
Haku	2	243	100	1,039	4.28
Langtang	4	493	25	94	0.19
Ramche	7	976	100	516	0.53
Saramthali	17	961	53	1,713	1.78
Syaphru	5	84	40	436	5.19
Thulogaun	10	387	40	226	0.58
Laharepauwa	11	764	82	1,272	1.66
Thuman	6	344	83	450	1.31
Timure	8	285	38	130	0.46
Yarsa	3	218	100	0	0.00
Dhaibung	3	84	100	935	11.13
Chilime	15	812	47	303	0.37
<b>Total</b>	<b>151</b>	<b>8,249</b>	<b>60</b>	<b>10,785</b>	<b>1.31</b>

Column 'E' shows the Average AI. This is calculated by dividing the Sector AI (column 'D') by the Number of Households (column 'B'). By dividing the Sector AI by the Number of Households the bias towards large settlements is eliminated.

$$\text{Average AI} = \frac{\text{VDC AI}}{\text{VDC HH}}$$

For Bhorle VDC the Average AI is calculated thus:

$$\frac{1965}{1058} = 1.86 \text{ Average AI}$$

This calculation can be done when a specialist intervention is required. For example, if donors specifically want to address improving access to primary education in sparsely populated areas.

The higher the Average AI the greater the access problems for Primary education are in that VDC. Table 7 shows that the top three VDCs which have severe access problems related to primary education when looking at the Average Access Index are:

1. Dhaibung = 11.15
2. Syaphru = 5.19
3. Haku = 4.28

The DDC officials are then able to refer back to data analysed during the T2 stage to see what sort of intervention is required in those particular VDCs.

## Identifying District Level inter-sector priorities

The final analysis during the T3 stage concerns inter-sector priorities. This is very simply done by taking the AI Total (column D) in the VDC Sector priority table (Table 7), for all of the sectors being assessed and adding them together so you are left with a Sector Total for the entire District. Table 8 illustrates the Sector wise Totals for Rasuwa District.

**Table 8: Comparison of different sectors at DDC level for prioritization of sectors**

VDC	Water Supply	Transport Services	Local Market	VDC Centre	Post al Services	Primary School	Primary Health	PCO
Bhorle	1,257	5,815	425	1,638	817	1,965	2,483	2,372
Bridim	805	1,233	536	377	427	302	464	551
Dadagaun	733	1,761	1,332	753	753	922	1,026	1,368
Dhuncha	1,197	340	0	0	0	117	183	0
Gatlang	1,181	1,723	1,452	291	97	97	1,104	562
Goljung	275	856	220	11	0	268	636	0
Haku	2,131	2,594	2,021	833	813	1,039	1,554	2,549
Langtang	176	461	0	0	0	94	101	552
Ramche	551	1,304	63	221	552	516	511	999
Saramthali	3,220	5,140	1,890	997	997	1,713	1,309	3,853
Syaphru	374	685	233	699	699	436	1,297	527
Thulogaun	517	780	354	84	72	226	282	414
Laharepauwa	2,436	831	0	777	701	1,272	1,622	392
Thuman	656	924	230	66	146	450	350	470
Timure	756	598	456	24	24	130	61	529
Yarsa	542	6,190	3,326	1,654	1,654	0	1,538	4,018
Dhaibung	1,490	1,083	0	320	89	935	1,469	403
Chilime	501	789	253	1,297	392	303	529	356
<b>Total</b>	<b>18,798</b>	<b>33,107</b>	<b>12,791</b>	<b>10,042</b>	<b>8,233</b>	<b>10,785</b>	<b>16,519</b>	<b>19,915</b>

This information helps to guide the DDC planners to identify VDC needs and to allocate resources for the implementation of sector projects. It is also useful for other line agencies that are willing to invest in such sector projects.

As illustrated in the table, the top four sectors with accessibility problems for Rasuwa District are:

1. Transport services = 33,107
2. PCO = 19,915
3. Water supply = 18,798
4. Primary Health = 16,519

The DDC officials are now in a position to understand the access needs both within each District looking at each VDC (Table7) as well as an inter-sector overview (Table 8) to identify which sectors in each District are in most urgent need of attention.

## Identification and Prioritization of District Level Projects

The last activity in the T3 workshop is the identification and prioritisation by DDC officials of District level projects.

Budgets are often allocated by sector and channelled through the concerned technical agencies. DDCs and VDCs have very little influence on sector budget allocations. All they can do is to try and influence policy decisions at the centre and to demonstrate that investments in specific sectors are lacking compared to other sectors. By demonstrating the real need and situation in the Districts through the use of IRAP, DDC and VDC officials are able to identify 'access gaps', and show where investment is needed supported by evidence. In time, by using IRAP to identify local needs, local governments may start to gradually influence sector allocations.

It must be remembered that sector allocations are usually based on political considerations so while lobbying at the centre is an important activity this alone will not ensure success in getting sufficient allocations to fund needed interventions. It is not recommended to simply compare different sector indicators as a way to set sector priorities, a better way is to use the sector indicators and compare them with norms, standards, targets and/or national averages in each sector. The access gap can then be identified and measured against pre-existing and accepted national standards. For example, if the national target is to provide 80% of households with adequate access to clean potable water and the Accessibility Indicator shows that in reality only 30% of households have adequate access to clean potable water than the access gap can be measured as 50%.

Most local level projects are covered by the VDCs, and the DDCs provide the funds for the implementation of priority projects, but this is dependent on the financial capacity of the DDC. However, there are still some sectors not under the jurisdiction of the VDCs and these sectors fall under DDC responsibility. These sectors include District roads, Hospitals, Ayurvedic Centres and Agricultural and Livestock Service Centres and Secondary Schools. Similarly, projects requiring technical expertise or that have high costs or are large sized projects that extend over various VDC boundaries have to be addressed at the DDC level. In such cases DDCs need to take care and analyse the access indicators of the affected VDCs, and DDCs need to find an integrated approach to addressing them. The DDCs need to organise meetings to include all the affected VDCs and hold an area workshop to identify the needs based projects. This is especially the case when looking at transport and road interventions.



For example transport is often the first priority of a VDC as a way to improve access to a particular service or facility, often, a road intervention will affect other VDCs or settlements through which the road corridor passes, so it is important to consult with all those areas which will be affected by the construction and/or upgrading of roads or tracks.

Equally, a priority for road access in one VDC may not be a priority in a nearby VDC through which the road must pass. A participatory meeting is held so that all stakeholders are able to look at and discuss the various choices for this construction, the final selection will be done by the DDC having considered the options and heard the comments and assessed the situation at the macro-level not just concentrating on the VDC level. The project is then screened according to the approach manual.

Another example may be the construction of a hospital. Current Government policy is to establish a hospital in each constituency. The location may then be selected by organising an area wide workshop to assess the appropriate location for the facility. Factors to be taken into consideration include an assessment of the travel times to certain potential sites by the surrounding settlements. In such cases, it does not mean that the health facility will be automatically located in the VDC with the highest AI but in a place where travel times to it by all affected settlements is deemed acceptable.

In both examples sited, a service flow map of people and services and facilities should be produced. This provides a good visual tool for DDC planners to understand the location of people and goods, facilities and services.

Table 9 details the transport flow in Rasuwa District showing how long people in each VDC on average walk to a road head to access bus services.

**Table 9: Transport service flow table of Rasuwa District**

VDC	No. of Settlement	No of HH	Place of Bus Services	Walking Time (min)	Frequency of Bus Service
Bhorle	20	1,058	Ghumti(12), Kalikstan(8)	134	2
Bridim	7	179	Shyaphu	377	2
Chiline	10	281	Shyaphu	210	2
Dadagaun	9	372	Betrabati	231	8
Dhunche	5	340	Dunche(2), Thade(1), Sole(1), Bhimali(1)	40	4.4
Gatlang	2	368	Thilo Bharhu(1), Syaphu(1)	180	2
Goljung	4	243	Syaphu	120	2
Haku	7	493	Dunche(5), Berabati(2)	403	3.7
Dhaibung	9	976	Kalikstan(5), Itpane(1), Beteni(1), Dharapani(1), Katinje(1)	16	4
Lahrepauwa	17	961	Betrabeti(8), Kaliksthan(8) Banuwa/ Ghumti(1)	49	5.8
Langtang	5	84	Shyaphu	690	2
Ramche	10	387	Drabchet(5), Gochet(3), Thade(1), Okhranitar(1)	67	3
Saramthali	11	764	Kalikstan(8), Betrabeti(3)	260	4
Shyaphru	6	344	Shyaphu(5), Dunche(1)	96	2.3
Thulogaun	8	285	Betrabeti	150	6
Thuman	3	218	Shyaphu	180	2
Timure	3	84	Shyaphu	320	2
Yarse	15	812	Kaliksthan(9), Dunche(4), Ghumti(2)	303	4
<b>Total</b>	<b>151</b>	<b>8,249</b>		<b>193</b>	<b>3.7</b>

## Preparation of District Level Sector Priorities and Project Maps

The map produced at the District level will show three types of information:

1. Access situation map – this map shows the average level of access of each VDC for each sector.
2. An Investment Priority Sector Map – This map is produced according to the AI calculated in the previous table by categorizing the investment as high, medium or low as defined by the DDC.
3. District Level Project Map – This map is produced to show the District level projects in different sectors.



# 9 IRAP and Village and District Planning



## Background

The projects identified through the IRAP process physically relate to one or more VDC settlements and priority projects should be included into VDC development plans.

The VDC sends out annual “Demand Collection Forms” to individual settlements or wards and settlements and wards prepare a list of priority projects for the VDC. The different lists are then combined at VDC level where, possibly some coordination and integration of projects takes place. If a number of settlements, for example, all request water supply projects and they all share the same water source, these individual projects will be integrated into a larger all encompassing intervention. Similarly, a VDC may also integrate a series of different transport projects such as trail and bridge construction to cover multiple settlements thereby creating complementarities.

The consolidated list of projects is then presented to the Village Council Meeting. At this meeting projects are reviewed and compared amongst each other and against the VDCs development plans and priorities. The outcome of this meeting will be a list of prioritized projects.

VDCs can decide to allocate local funds for project implementation or submit a project to higher level authorities through the Ilaka Workshop where the approved plans resulting from the Village Council Meetings are brought together. The availability of resources obviously determines how many and what kind of projects will be implemented by the VDC itself. This can result in VDCs adopting and funding lower priority projects as higher priority ones would exceed their available budgets (or maybe require specialised expertise). Priority projects that can not be implemented by VDCs are then forwarded to the Ilaka Level.

An Ilaka consists of a number of VDCs. The workshop brings together representatives from the VDCs, representatives from the DDCs, NGOs and representatives of the political parties. The Ilaka Workshop reviews and discusses the VDC plans and seeks to integrate, consolidate and coordinate the different projects. The workshop comes up with an integrated

list of projects which is then submitted to the DDC which in turn reviews the list of priorities and tries to integrate the lists of several Ilakas. The DDC will finally meet to discuss the Ilaka priority lists and discusses project prioritization, resource allocation and coordination.

The consolidated list of projects that results from the DDC meeting is the District Plan. DDCs can either allocate their own resources for implementing priority projects or forward project proposals to the technical line ministries, the National Planning Commission, NGOs or donors. The entire planning process from the settlement level up to the district level is recorded and documented. This documentation, together with the decisions from the District Council Meeting make up the District Plan Document.

The Local Self-Governance Act of 1999 has provided the local authorities at VDC and DDC level with vested power and responsibility to undertake the local-level planning exercise. In the prevailing system of annual planning, Village Council Meetings are to be conducted by the end of Paush (mid-January), while District Council Meetings are to be accomplished by the end of Phalgun (mid-March) each year. The question now is how the IRAP tools can strengthen this mandatory planning process.

### **How does IRAP fit?**

The Nepali planning process is truly bottom-up, starting at the settlement level, to the VDC level, to the Ilaka level and finally to the DDC level this means IRAP tools can be used at all levels.

IRAP can be used first at settlement or ward level to identify priority projects through a participatory manner. Household representatives can meet and identify the access needs of their families and assess whether these needs are met or not. Using simple analysis, the household representatives can then produce a settlement map upon which interventions are identified. This simple mapping exercise enables households to participate in expressing their access needs and the maps produced enable settlement representatives to set priorities. (The necessary tools and techniques are introduced during the T1 workshop).



Secondly, while coordinating and prioritising the settlement projects at VDC level, Accessibility Indicators are used to decide on inter-settlement priorities. This analysis should take into consideration any existing national and district norms, targets and objectives. (Identification and prioritization tools and techniques are introduced during the T2 Workshop).

The Village Council eventually decides on the priorities to be funded with their own resources and the list of projects to be forwarded to the Ilaka Workshop. This decision is the Village Plan. A planner from the DDC helps the VDC to prepare and write up the VDC Plan.

Thirdly, in a somewhat similar fashion, the projects from different Village Councils are coordinated and integrated at the Ilaka Planning Workshop which in turn decides on the list of projects to be submitted to the DDC. VDC officials, technical line ministries represented at district level, DDC representatives and NGOs all take part in the Ilaka Planning Workshop. Again, IRAP indicators and maps can be used to decide on inter village priorities

Finally, the DDC integrates and prioritizes the projects resulting from the different Ilaka Planning Workshops and submits its recommendation to the District Council for approval. In this context DDC planners can use VDC Accessibility Indicators (resulting from the T3 Workshop) to justify VDC priorities.

Amongst the proposed projects the District Council separates out the projects to be implemented with its own resources after elaborate discussions. The remaining projects are then reviewed and approved for forwarding to the National Planning Commission through the concerned Department or the Ministry.

## **District Transport Master Plan (DTMP)**

DDCs also have to produce sector plans in addition to the above referred to area-based plans. An example is the DTMP which identifies investment priorities in the road sector. In fact, no VDC or DDC should take up any project other than that from the DTMP after the plan is approved by the District Council.

DoLIDAR has produced an “Approach Manual” to guide in the development of DTMPs. IRAP outputs include prioritized rural road links at both VDC and DDC level. These priorities are the result of a participatory process and are based on current levels of access expressed as AIs. It is clear that the outputs of the IRAP process are inputs for the process of formulating DTMPs. DoLIDAR intends to update its current “Approach Manual” in the near future to include the IRAP process as a tool in identifying rural road link candidates and priorities.



# Annexes



## Annex I: Steps for Participatory Planning Process (PDDP/LGP)

STEPS	THEME	ACTIVITY	WHO/WHEN
Primary	Information	Data analysis and preparation of resource map	DDC information centre
Step 1	Guidelines	Fix budget Ceiling	NPC/middle of November
Step 2	Revision of guidelines	Revision of guideline and budget ceiling	DDC / Third week of November
Step 3	Planning Workshop	Discussion of plan priority and budget with DDC member and line agency heads	DDC/ End of November
Step 4	VDC meeting	Discussion of possible priority sector and programme / projects at ward and settlement level	VDC/ Third week of December
Step 5	Selection of Projects	Discussion of felt need of community, prioritise projects and fill-up of demand collection Compilation of community demand,	Community/ Third week of December
Step 6	Ward Meeting	prioritisation and recommendation for VDC Compilation of ward level projects, Resource	Ward meeting/ Last week of December
Step 7	VDC Meeting	estimation, Prioritisation, Classification of projects as per resources need, and classify projects to be implemented by VDC and to be forwarded to <i>Ilaka</i> / district level.	VDC/January first week
Step 8	VDC Council Meeting	Approval, with or without alteration, of the VDC Meeting outcomes (Step 7)	VDC Council/ Second week of January
Step 9	<i>Ilaka</i> Level Planning Workshop	Compilation, Prioritisation and Recommendation of projects received from VDC Council.	Coordinated by <i>Ilaka</i> Member / First week of February
Step 10	Sectoral Planning Meeting	Classification of projects recommended from <i>Ilaka</i> level, Prioritisation and recommendation for further processing.	Sectoral Committee of DDC/ Third week of February
Step 11	Integrated Planning Formulation	Inclusion, exclusion and revision of priority of the projects on recommendation of Sectoral Planning Committee.	Integrated Planning Committee of DDC/ End of February
Step 12	DDC Meeting	Compilation and analysis of projects from Sectoral committees and appraisal of compiled projects i.e. environmental, economic and social standpoint, Prioritisation of projects, classification of projects according to resource i.e. implementation through own resource or requires central level resources through sectoral ministry.	DDC / First week of March
Step 13	DDC Council	Approval of programmes and policies of district	Second week of March
Step 14	Implementation	Presents the approved programmes to the central agencies. Implementation of programmes after approval of central agencies	Fourth Week of march / DDC and Line Agencies After approval generally at end of July / DDC and Line Agencies

**District Development Committee**  
**Accessibility Survey Questionnaire**  
**RASUWA**

Settlement Name	How do People travel to VDC Center?		
Ward Number	How long does it take them? (hours/minutes)		
VDC Name	How long does it take People to Reach their Agricultural Fields? (average time in hours/minutes)		
Total number of Households?	Total Number of People?	Male	Female
Does the Settlement have a Source of Electricity?	If yes, describe	How many Households are Using this Source?	

Survey/discussion date:  
 Number of participants:

Male:

Female:



**Only Complete if there is a School in the Settlement:**

Type of School	Total Number of Students?	Coming from what Settlements?	Number of Grades?	Number of Class-rooms?	Number of Teachers?	Physical Status of School (describe and identify problems, if any)?
Primary School						
Lower Secondary School						
Higher Secondary School						

Infrastructure present	Toilet	Water supply	Playground	Permanent Building	Library	Science laboratory
Primary school						
Lower secondary School						
Higher secondary School						

### Access to Health Services

Service/Facility	Located within Settlement: yes or no?	Travel time?	Bridges?		
Sub Health Post				Where do most People go for Health Services?	
Health Post				How Long does it take them to get There?	
Primary Health Center				Where do most People go to Buy their Medicines?	
Hospital				How Long does it take them to get There?	
Pharmacy				Where do People go for a Dentist?	

**Only Complete if there is Health Facility in the Settlement:**

Identify and Classify available Health Workers	Frequency of Service (every day or less)	Does the Facility provide Vaccinations/ Medicines	Does the Facility have a Laboratory	Does the Facility have Toilet/ Drinking water	Physical Status of the Facility Permanent Building or not (describe and identify problems, if any)?
Sub Health Post					
Health Post					
Primary Health Center					
Hospital					
Pharmacy					



### Access to Transport Services

Does the settlement have road access?	yes/no	If yes, how many months a year (average)	What kind of vehicles are coming to the settlements?	Describe the condition of the Road access (Engineered/Un-engineered)	
Are transport services available in the settlement?	yes/no	If yes, how many months a year (average)	What kind of transport services are available in the settlement? (Regular/Irregular)	What are the final destinations of these transport services and the one way fares?	
				destination	fare
				1.	
				2.	
				3.	
			4.		

### Access to Markets

Is there a market in the settlement?	yes/no?	If yes, how often?	Do people from other settlements visit this market?	If yes, from what settlements?
Do traders visit the village?				

Type of market/store	Where do People go for Markets?	How do they Travel there?	Travel time (hours/minutes)	How often do people go? (on average)	Purpose of Market (specify products bought or sold)	Is market Linked with Public Transport?
Local Market/Store						
Hat Bazar (periodical)						
Main Market (permanent)						
Agriculture Market Center						

### Access to Other Services

	Where do People go for?	How do they Travel?	How Long will It Take them to Get there?	Is the service regular?	Is there permanent Building?	Is technical manpower available regular?
Making Phone Calls						
Post Office						
Agriculture Service Center						
Agriculture Stores (fertilizer/chemicals/ seeds/tools etc.)						
Credit Facility/Bank						
Livestock Service Center						
Other (describe)						
Other (describe)						

### Access Problems

Is Physical Access a Problem for:	Big Problem	Minor Problem	No Problem	If big Access Problem, describe why?
	tick appropriate answer			
Primary Education				
Secondary Education				
Health Care				
Domestic Water Supply				
Transport Services				
Electricity				
Agricultural Service Center				
Livestock Service Center				
Markets				
Agricultural Supply Centers				
Telephone/PCO				
Postal Service				
Visiting the VDC Center				
Visiting the DDC Center				
Road				
Trail/Bridges				
(other, describe)				
(other, describe)				

**Access Priorities**

What are the 3 Priority Sectors to Improve Physical Access?	What kind of Interventions (Projects) are Needed to Improve Quality Access?
1.	
2.	
3.	

### Annex III: Sample Demand Collection Form

VILLAGE DEVELOPMENT AND SELF-HELP PROGRAMME PROJECT PROPOSAL FORMAT				
1. Project Name:		District:		
2. Place of the project:		VDC:		
		Ward No.:		
3. Type of the project: New / Incomplete / Maintenance				
4. Project benefit (physical):				
a) Number of beneficiary families:		Population:		
b) Beneficiary hectare (irrigation):				
c) Others: Beneficiary Kilometre (road):				
5. Total cost estimate Rs.:				
6. Necessary resources for the project and the share to be borne by the implementing agency:				
S. N.	Resources	Total Amount	Amount to be borne by implementing agency	Amount to be borne by the community or the beneficiary
1	Construction Material			
	a)			
	b)			
	c)			
	d)			
2	Transport			
3	Wage for skilled labour			
4	Wage for unskilled labour			
5	Others			
Total				
Note: The amount to be borne by the implementing agency and the community both should be committed.				
7. Project starting date:		Project completion date:		
8. Arrangement for operation and maintenance of the project:				
9. Name list of Users Committee members:				
10. Anything else:				
11. The above mentioned descriptions are correct.				
Signatory on behalf of the applicant				
Name: .....				
Signature: .....				
Date: .....				
Note: 1. Names of the beneficiaries should be attached.				
2. Detailed description of the project may be attached.				

### PROJECT BRIEF FORM

Settlement Name: \_\_\_\_\_ VDC and Ward: \_\_\_\_\_ Date of filling this form: \_\_\_\_\_  
 Name of the project:: \_\_\_\_\_ Estimated Cost:: \_\_\_\_\_ District:: \_\_\_\_\_  
 Type of the intervention: Physical Access ( ) a) New facility ( ) b) Existing facility ( ) Priority No.: \_\_\_\_\_  
 Type of project: To be completed ( ) Maintenance New construction ( ) Physical Infrastructure ( )  
 /Rehabilitation ( ) Management Improvement ( )

	Activity Description	Physical Target	Beneficiary		Investment Sharing Arrangement			Remarks
			Households	Population	Community	Local Authority	Line Agency/Donor	
1.								
2.								
3.								
4.								
5.								

Papers to be attached:
 

- a) List of participants in the meeting
- b) Cost-estimate details, if available
- c) User Group Member list, if applicable
- d) Cost sharing arrangement papers, if applicable

Planning support official's Name:	Community Representative's Signature:
Signature:	Name:
Designation	Designation

### NEED-BASED DEMAND COLLECTION FORM

District:

Settlement Name: VDC and Ward Number:

S. N.	Project Name	Description	Target	Proposed Implementation Period	Beneficiary Household Number	Cost Estimate	Preferred Implementation Mode	Accessibility Index	Priority Number	Remarks
1.										
2.										
3.										
4.										
5.										

Papers to be attached:

1. Project Brief Form
2. Users Group Name list, if applicable
3. Cost Sharing Arrangement, if applicable

Signatory of behalf of the peoples' representative:

Name:

Designation:

Date:

## RECENT RURAL ACCESSIBILITY TECHNICAL PAPERS (RATPs)

- No. 1 Ron Dennis, *Rural Transport and Accessibility - A Synthesis Paper*, ILO Geneva, 1998
- No. 2 Kanyhama Dixon-Fyle, *Accessibility Planning and Local Development. The application possibilities of the IRAP methodology*, ILO Geneva, 1998.
- No. 3 Geoff Edmonds, *Wasted Time - The Price of Poor Access*, ILO Geneva, 1998.
- No. 4 Chris Donnges, *Rural Access and Employment - The Laos Experience*, ILO Geneva, 1999.
- No. 5 Hosted by LGED and organized by IFRTD, LGED Bhaban, Dhaka, Bangladesh, *Integrated Rural Accessibility Planning (IRAP) - Expert Group's Meeting*, ILO Geneva, 1999.
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These Guidelines are aimed at strengthening local-level participatory planning system in Nepal by facilitating objective assessment of access constraints of the rural communities to needed services, opportunities and resources. More specifically this planning tool helps identification and prioritisation of need-based local infrastructure projects at the local-level. These Guidelines are based on practical experience of local-level planning and supplement the existing planning system and are compatible with prevailing legal and administrative system of the country.

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