

Terms of Reference

**HIS MAJESTY'S GOVERNMENT OF NEPAL (HMG)
Ministry of Information and Communications (MOIC)
Telecommunications Sector Reform Project (TSRP)
Terms of Reference (TOR)**

For

Study on Increasing ICT Access in Rural and Peri-urban Areas of Nepal

A. Outline of Government Policy and Objectives

His Majesty's Government of Nepal (HMG) is already implementing its reform program for the telecommunications sector. Having recognized, the importance of telecommunications as an increasingly important factor for economic development, social inclusion and welfare enhancement of the nation; HMG has taken a number of important actions to improve sector performance. These include:

1. Parliament passed new Telecommunications Act in April 1997 (amended in January, 2001) establishing a modern framework for regulation of the sector. The regulatory framework is aimed at putting all operators on an equal competitive footing and increasing competition;
2. Establishment of Nepal Telecommunications Authority (NTA) as stipulated in the Act and appointment of the NTA Chairman and its Members;
1. Adoption of the new progressive telecommunications policy in September 1999 (amended in August 2002). The stated policy objective is the liberalization of the sector by promoting private sector participation in all market segments to ensure provision of qualitative telecommunications services at competitive rates. Recently, a new Telecom Policy is approved by the HMG. With the successful implementation of the policy, the sector performance is expected to improve dramatically by allowing open competition. Following are the main features of the new Policy:-
 - Telecom Sector will be completely open by 2004 as envisioned by Telecom Policy -1999
 - An open license system in telecom sector to create healthy competition in the field ending the government licensing regime. A license will be awarded in a transparent manner
 - Technology neutral licensing regime
 - Private sector will be encouraged to invest in the sector. Up to 80 % foreign investment will be allowed.
 - License fees will be charged to cover only the administrative expense and overhead of the regulating agency.
 - Focus on Universal service obligation for the Service Provider in urban area and universal access in rural area

- Initiative towards the Information Society by expansion of Telecom Service & provision of Cyber Law.
 - NTC will be commercialized by converting it in to a company and reduction of HMG/N ownership
 - Following provisions are provided to promote rural telecom services:
 - Use of Rural Telecom Development Fund
 - Reduction of custom tariff from existing 5 % to 1% for import of equipment
 - Concession of license fees, annual tariff for small service providers for annual income of less than Rs. 2 million
 - Promotion of ICT use in support of rural development and Poverty Alleviation
2. More liberal and progressive "New Long-term Communications Policy-2059" has already come into affect since June 2002.
5. HMG-N has issued licenses to the private sector to operate FM radio, cable, and terrestrial as well as satellite TV broadcasting services.

The Ministry of Information and Communications (MOIC) is charged with formulating His Majesty's Government (HMG) of Nepal's telecommunications sector policy. The 1999 National Telecommunications Policy aims to develop and expand telecommunications services in a fair competitive atmosphere with the involvement of private sector and to make available new telecommunications services needed for the development of the country, by fulfilling the demand for services in a timely manner in all the areas of the Kingdom. Specifically, the policy provides for the:

1. Involvement of the private sector in the development and operation of telecommunications services in accordance with liberalization policy of HMG of Nepal.
2. Provision of quality services at a reasonable price by creating an environment of fair competition among the service providers.
3. Provision of basic telephone services in remote and inaccessible rural areas also of the Kingdom.
4. Creation of a pro-competitive interconnection regime.

Progress has been made in the implementation of the policy as evidenced by the following key actions taken by the Government and NTA:

- Issuance of a total of over 110 licenses for VSAT, radio paging and internet service providers; Basic telephone services and cellular mobile service;
- Selection process of a second GSM operator started in November 2000;
- Decision to privatize Nepal Telecommunications Corporation (NTC) and completion of a draft information memorandum (with the assistance of DANIDA financed consultants). The privatization process is expected to be completed within the next two years. As a

precursor to privatization, NTC has already been converted to a Limited Company which will be effective from April 13, 2004.

- Selection of a WLL operator in June 2001.

Rural access and connectivity are the priorities of HMG. As a part of strategy of HMG, reflected in the recent telecommunications policy, MOIC and NTA are establishing a benchmark subsidy for rural investments by private operators. Process to issue a license to a private operator for the provision of Rural Telecommunications Services (RTS) in the Eastern Development Region has already been started. The bidder proposing the best option indicating lowest subsidy has been selected through international competitive bidding. This will ensure efficient utilization of scarce public resources and will provide a benchmark for rural operations of NTC.

The primary activities included in the reform program are the following:

- Preparation of a policy update and strengthening the organizational and institutional capacity of the policy cell to enable it to respond to policy issues in the sector
- Modernization of the radio spectrum management and monitoring system and regulatory regime, including strengthening institutional capacity
- Establish an adequate regulatory environment by strengthening the capacity of government to respond to regulatory issues in the sector.
- Prepare licensing strategy to provide telecommunication services in the rural areas
- Finance the subsidy element required to induce private operators to provide rural telecommunication services (RTS)
- Avoid unfair competition among the service providers.

Programs and Institutions Related to Rural ICT Public Centers

There are many stakeholders who are initiating work in rural ICT Public centers. They are, Ministry of Science & Technology, MOST (UNDP assisted), National IT Coordination Committee (NITC), Rural-Urban Public Partnership Programme, Ministry for Local Development (MOLD) and proposed JICA Assistance in Multi-Purpose Community Tele center (MCT). UNDP is undertaking (started from May 1, 2003) a study "Assessing the Feasibility of ICT as a Development Instrument for Rural-Urban Linkages in Nepal". The MOLD is preparing an IT Master Plan for Local Governance. The interest of the MOLD in ICT is to promote ICT in District Development Committee (DDC) and municipalities and to host the web pages of these institutions. Further, JICA is interested to provide JPY 100 Million as a grant aid to HMG/N for establishment of MCT model in eight Villages Development Committee (VDCs) in four districts in the vicinity of Kathmandu. The main objective of this proposed Japanese project is establishment of 10 MCTs.

Public ICT Access Centers in Rural Areas

HMG/N has an ambitious plan to set up 1500 IT access centers by the end of the 10th plan period. the MOIC and MOST are collaborating through the national IT coordination committee and other working level committees to develop a strategy to implement the plan. The UNDP is providing MOST with limited support to pilot fifteen rural telemeters in order to (i) design, test and specify a replicable methodology for eliciting and delivering the information needs of rural communities. MOIC intends to commission a study to develop a toolkit for scaling out the provision of rural public ICT centers. This would include (i) estimating potential demand, likely take up, user revenue, and ICT potential; (ii) developing funding principles and processes for such centers; (iii)

developing business plans for the provision of services; and (iv) developing a monitoring and evaluation process. This proposed study would complement the work being carried out under UNDP funding.

B. Scope of Work for the Proposed Study on Increasing ICT Access in Rural and Peri-Urban Areas of Nepal

Objective

- a) To develop of an understanding of the characteristics of the rural/peri-urban and low income ICT market so as to be able to determine the appropriate methods of meeting this demand, including the appropriate institutional arrangements.
- b) To determine the cost of providing ICT access to rural/peri-urban and low income users (groups) and what proportion of the cost should be borne by these users and what proportion should be subsidized by the Rural Telecom Development Fund (RTDF).
- c) To determine the cost of expanding (and to encourage the private ISP's to expand their services in the rural areas too) internet points of presence in all districts in Nepal;
- d) To recommend the institutional and regulatory requirements for the operation of the RTDF.
- e) To set out the mechanism as to how private sector can participate in the delivery of ICT services for rural and low income users and the regulatory requirements to monitor such service providers and recommend a detailed strategy to improve access to ICTs in rural/peri-urban and other under-served areas.
- f) To develop appropriate business models for the sustainable delivery of ICT access to rural/ peri- urban and low income users through public-private partnerships;
- g) To design and support HMG in conducting a pilot project for public access to ICTs.

Overall structure of the assignment

The assignment will be divided into three (3) phases:

- **Phase I:** The consultant will analyze the existing level of provision of these services, what potential demand exists for them, and what constraints exist to their development (technical, economic, and regulatory). The consultant will propose viable alternatives to meet this demand, with a detailed analysis of the costs involved as well as the regulatory implications, and the role of the RTDF. Based on this analysis, the consultant will develop practical strategic options and operational schemes for the provision of the necessary infrastructure and services, such as Internet Points of Presence, telecenters, and Internet access for schools.
- **Phase II:** The consultant shall conduct a demand study and develop a detailed pilot project to be funded by the RTDF (managed by NTA) to demonstrate the viability of the proposed strategy. The consultant shall prepare the bidding documents for the pilot project (for Internet POPs and Telecenters), which can be considered as an experimental bidding round from the RTDF.
- **Phase III:** Support the HMG in conducting the competitive bidding process under the pilot project designed in phase II, and negotiations with the winning bidders.

Task I – Phase One

- a) Sector Overview and Review of International Experience. During this initial task the consultant will briefly describe the overall rural environment, existing level of service provided in rural/peri-urban areas, the role of industry players and government

institutions, the business and regulatory environment in which these services are delivered, as well as consumer expectations. Information for describing the existing telecommunications and IT sector is expected to be available from existing sources, without conducting primary research, except for short field visits (not to exceed about 12 days) to selected locations identified in conjunction with MOIC, NTA and MOST. Specifically, the review will consider:

- Overall rural environment, including population density and distribution, income levels and distribution, nature of economic activities and principal sources of income, degree of cultural and linguistic homogeneity, terrain, availability of basic infrastructure, in particular electricity and postal services, as well as major potential users of ICT services, such as local governments, post offices, health centers, schools, and large business customers;
 - Present and expected future evolution of the legal, policy and regulatory framework within the ICT sector, with particular focus on its impact on the development of rural telecommunications, broadcasting and the Internet;
 - Current sector structure, range and reach of services provided, marketing and investment strategies of sector players, and potential existence of alternative service providers (e.g. power companies);
 - Current status of the telecommunications network, from the perspective of the suitability of both the national “backbone” and access networks for provision of telephony and Internet services to currently under-served areas, both rural and urban. This would involve a technical survey of the network to identify potential bottlenecks to the provision of advanced services to rural and peri-urban communities;
 - Government’s objectives and policies for the development of rural areas, including the status of other planned rural development initiatives such as posts, electrification, roads, and water;
 - The consultant will advise the Government on recent experience in rural telecommunications and ICT sector in other countries, with particular emphasis on experience which may be relevant in the Nepalese context.
- b) Recommended Strategy and Operational Parameters. Based on relevant international experience, the results of the initial field visit and existing demographic and socio-economic information, the consultants will propose viable strategic options for consideration by the government on how to increase availability of basic telephony and information services, such as Telecenters and Internet for schools, to rural and under-served urban areas. The general objective is that service provision in rural and under-served areas be commercially viable over the long term. To the extent that private investment is considered unlikely to serve all areas, the consultants shall develop a range of scenarios for targeted interventions that could potentially be financed through the RTDF. Each option will address:
- its impact on meeting service targets over time
 - its impact on the evolution of the sector structure
 - commercial viability and sustainability.
 - compliance with existing policy, regulatory, legal, and technical framework, or with specific suggestions for achievable adjustments to the framework.
 - regulatory implications, in particular on licensing, interconnection and tariffs

- private participation.
- extent of local community participation
- overall cost and possible sources of financing.
- relationship between local service providers and long distance carrier or carriers.
- technical capacity to implement the option.

The options are not required to be developed in extensive detail, but rather to that level which will allow the government to identify preferred options for further elaboration and implementation. Preferred funding sources will be the private sector, but public funding sources may also include government, donors, RTDF or new financing mechanisms. If any of these sources are suggested, a brief description of the policies and operations of the funding source shall be included. The consultant shall explore options to structure any such intervention in the most appropriate way so as to leverage the maximum amount of private investment and optimize impact in providing rural service.

- c) Recommendation and consensus building. The Consultants shall organize a workshop to discuss the proposed strategies with stakeholders and secure consensus on the preferred strategy. After the workshop, the consultants will finalize the strategy in consultation with the Government, taking into account stakeholders' response. The strategy will include a detailed action program for its implementation together with an estimate of the resources required.

Task II – Phase Two

- a) **Design of the Pilot Project.** The government wishes to conduct a pilot project as a first step in implementing the recommendations of the consultants. The consultants will support in the evaluation of the appropriate “zoning” of the country, evaluate the objective level of service in each region with a cost/benefit approach (according to the penetration goals established), and prioritize the projects, selecting the most promising areas to be served under the pilot project, bearing in mind the available budget.

The consultant will specifically analyze the possibility of expanding Internet Points of Presence in Nepal, installing a small number of commercially viable telecenters in select locations to be expanded subsequently on a commercial basis into a national network of telecenters and public Internet access points.

At the end of this task, the consultant is expected to prepare a methodology, terms of reference, sample survey and select a number of locations, in agreement with MOIC and NTA. These selected locations will represent samples of the target areas for the pilot project, in which a demand study will be conducted subsequently, which the consultants may conduct directly or may contract out to a local company.

- b) **Demand Study:** The demand study will be based on a thorough survey of selected locations, as described below, which will produce a detailed description of expectations for services in the rural and under served urban areas, the potential demand for new services, and technical, legal and business constraints for the delivery of additional services. The potential level of telecommunication and information services utilization in Nepal should be described in detail based on a demand study including three different scenarios (urban, semi-urban and rural). Each scenario should include at least three

surveys of the most populated areas within each scenario, according to the National Census. Utilization estimates will include a prioritization of telecommunication needs, such as:

- Priority customers, such as administrative centers, hospitals, police stations, post offices, Internet service providers, schools, businesses, etc.;
 - Appropriate extension and connections to the national backbone network;
 - Analysis of the users' payment ability and the types of demanded services;
 - Required service levels and transmission capacity for towns and villages in different sizes, segments, and/or at different levels in the administrative hierarchy, based on estimates of demand for different services, from voice to Internet access;
 - Appropriate policy targets for the desired service levels, such as minimum acceptable distances (in km or hours of walking) from the nearest public communication point, numbers and sizes of villages/towns for which it is achievable to have at least one payphone and/or one telecenter within a specified number of years, as well as estimated cost of this deployment.
- c) Design of Bidding Process for the Pilot Project. The Consultant shall assist in the development of the regulatory structure of the RTDF, its organization and procedures. The consultant will design the bidding process and documents involved, coordinating closely with the consultants retained for the development of the legal and regulatory framework if new legislation is required and new licenses and interconnection agreements need to be developed. The consultants shall develop a Fund Operation Manual, taking special attention to building environmental guidelines into the process and drawing from existing experience and similar documents used in other countries. The consultant will also establish the organizational structure of the Fund, covering staffing and assess the facilities and equipment needed.

Task III – Training

Task 3. Consensus building and Transfer of skills

- a) Conduct an in-country workshop to present the findings and outputs of the assignment, as an essential step in securing the necessary consensus to ease approval of the policies developed with all stakeholders in the sector.
- b) Throughout the assignment, the consultants will provide hands on training to MOIC staff in ICT an effort to transfer skills to their counterparts.

Task IV – Phase Three

Implementation of the Pilot Project. The consultant will assist NTA in conducting the competitive bidding process designed above. The Consultant must support NTA in the evaluation of the offers and preparation of the recommendations to award the licenses and the subsidy (if required). The Consultant will assist NTA in the negotiations of the license and the process of providing the subsidy.