



**Assessing the Feasibility of ICT as a Development Instrument for
Rural-Urban Linkages in Nepal (SP/NEP/02/002)
in collaboration with the Rural-Urban Partnerships Programme
(RUPP) (NEP/01/020), under
Support Services Policy and Programme Development (SPPD).**

Strategic Plan of Action



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Background

This document is a component of the project “Assessing the Feasibility of ICT as a Development Instrument for Rural-Urban Linkages in Nepal (SP/NEP/02/002)”¹. The purpose of the project, as stated, is to produce a proven set of operational modalities, procedures and techniques with some successful model examples of the beneficial results of Information and Communication Technology (ICT) in development. Specifically, the project is to report on the use of ICT as an instrument for facilitating and promoting social and economic development with a particular focus on the poor and on women through an assessment of the use of e-governance and e-commerce in a rural-urban setting.

The purpose of this document is to describe an agreed Strategic Plan of Action (SPA) for using ICT as an instrument for facilitating e-governance and e-commerce to stimulate pro-poor rural-urban linkages; with a particular focus on the poor and on women. The SPA will further the on-going efforts of the Rural-Urban Partnerships Programme (RUPP) in demonstrating the benefits and use of ICT in practice and it will describe how, and with what resources, ICT can be put to use immediately and in the future. The SPA document arises from the preceding *Pilot Project Inception Report, Fact-Finding Review of ICT in Development in a Rural-Urban Setting and Feasibility Study*.

Implementing ICTs for Social and Economic Development

The SPA addresses, as requested, each of the following aspects contained in the boxes:

National development context

National development context – by reiterating national development targets, and the main features of the CCA/UNDAF and MDGs, where appropriate.

Nepal ranks as one of the world’s poorest countries. UNDP’s second Country Co-operation Framework (CCFII) for 2002-2006 for Nepal includes the objective of reducing poverty to a level of 10% of the population (from 42%) by 2017, and including the Millennium Development Goal (MDG) of halving human poverty and extreme income poverty by 2015. The immediate objectives of the CCFII include:

- enabling the government to design and implement policies and strategies for poverty reduction through enhanced growth, greater distributional equity and targeting of the most deprived,
- contributing to reducing gender inequities through empowerment of women and facilitating their access to resources.

A key element of the CCFII strategy is to improve outreach to the most deprived and to those suffering from inequalities by refocusing assistance to address the needs of socially and economically disadvantaged groups, including women and people living in remote and rural areas and conflict-affected areas, through the promotion of affirmative action policies and by channelling more resources to marginalized groups. Particular expected outcomes of the pro-poor policies and programmes component of the CCFII include the development of an ICT act and related bye-laws and the pilot testing of rural connectivity². Among the measures considered key for achieving Nepal’s MDGs, measures will be required to empower people and communities and increasing their stake in their own development

¹ See United Nations Development Programme, Nepal; Project Document, Assessing the Feasibility of ICT as a Development Instrument for Rural-Urban Linkages in Nepal (SP/NEP/02/002), Executing Agency UN-Habitat; United Nations Human Settlements Programme, Fukuoka Office.

² Country Co-operation Framework (CCF-II) For Nepal, 2002-2006. HMG/N and UNDP.

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through decentralisation and support to community development schemes. Furthermore, the foremost challenge in reducing absolute poverty lies in the reduction of unemployment, through policies, strategies and programmes which utilise the labour resources of poor households, communities and their organisations. Macro-economic policies will have to be much more pro-labour³.

HMG/N has formulated far-reaching policies and strategies for the Nations' use of Information Technology. Among them it is stated that:

- Information technology shall be applied for rural development
- Information technology network shall be extended to rural areas
- Internet facilities will be gradually applied to all Village Development Committees of the country
- Information technology will be used to promote e-commerce, e-health, among others, and to transfer technology to rural areas
- The use of the internet shall be extended to rural areas
- Content shall be prepared to enhance Nepali materials on the internet to preserve Nepali arts and culture as well as to develop rural areas.

Table 1 summarises relevant aspects of the UNDP country co-operation framework.

Table 1. Relevant Aspects of the UNDP Country Co-operation Framework	
Intended Outcome as stated in the Country Results Framework,	The policy, legal and regulatory framework reformed to substantially expand connectivity to information and communication technologies.
Outcome indicator as stated in the Country Programme Results and Resources Framework, including baseline and target.	
Indicators	Increased number and proportion of the population with access to the internet and content, disaggregated by gender.
Baseline	Phase 1 of ICT policy adopted; 12 ISPs providing access to over 25,000 internet users; 0.2 percent of the population has internet access; local content is minimal; data not disaggregated by gender.
SRF End Target	ICT policy tested, revised and implemented; ICT bill, regulations and by-laws adopted; 5% of population (gender disaggregated data) has internet access. Local content increases 100%.
Applicable strategic Area of Support (from SRF):	Access to technologies
TTF Service Line:	Line 2: Strategy implementation and capacity development, infrastructure, connectivity and access devices.

UNDP and HMG Nepal have undertaken a number of studies over the previous four years with regard to the application of Information and Communication Technologies (ICTs) to the Nation's development. Among the actions that have been proposed, the implementation of rural connectivity for poverty alleviation has been identified as a priority. The government is preparing plans to deploy around 1,000 community technology centres that will provide public access to ICTs, along with appropriate institutional adjustments for the provision of useful and useable information to rural communities via the technology centres. As yet, few if any such centres exist in Nepal. Under the second Country Cooperation Framework for

³ Millennium Development Goals, Nepal. Progress Report 2002, HMG/N and UN Country Team of Nepal.

Nepal, UNDP is committed to a pilot test of rural connectivity within the pro-poor policies and programmes.

Institutional arrangements relating to ICTs in Nepal have been defined by the national IT policy. The National Information Technology Development Council has been constituted under the chairmanship of the Rt. Honourable Prime Minister as the apex body to develop and implement IT policy in Nepal. The National Information Technology Coordination Committee (NITCC), under the Minister of Science and Technology, has been constituted to carry out research and to develop manpower. The Ministry of Science and Technology (MoST) is the lead agency for the development of Information and Communications Technology (ICT) in Nepal. This role includes promoting the use of ICTs, creating an enabling framework and infrastructure, and attracting investment MoST has an Information Technology (IT) Section under an under-secretary and the National IT Centre (NITC) under an executive director. The NITC acts as the secretariat of the NITDC and the NITCC. Its role is to render assistance and oversee the implementation of the Nation's policy for ICT. The Ministry of Information and Communications oversees the Nepal Telecommunications Corporation, the national telephone provider. The National Telecommunications Authority regulates telecommunications. The National Planning Commission provides planning input for matters relating to ICT and national development. An IT Park is being developed to attract private sector investment in local ICT initiatives. It operates under a committee which functions as a separate body under MoST.

The contributions that ICT can make

The contributions that ICT can make – expressed in terms of ICT objectives and expected outcomes for Nepal – towards achieving development targets.

In the SPPD-RUPP pilot, ICTs will make the following contributions;

- Make information technology accessible to the general public and by this means stimulate local business and economic development, and increase employment opportunities.
- Ascertain the potentials of ICT as an instrument for effecting human development, and e-governance and e-commerce in particular.
- Further the on-going efforts of the Rural-Urban Partnerships Programme (RUPP) in demonstrating the benefits and use of ICT in practice.
- Develop a proven set of operational modalities, procedures, and techniques: with some successful model examples of the beneficial results of ICT in development.
- Facilitate e-governance and e-commerce to stimulate pro-poor rural-urban linkages.
- An additional result will be a set of policy recommendations that will contribute to upstream development efforts in Nepal.

In terms of ICTs, the pilot will;

- Establish 17 telecentres, nine in municipal wards and eight in Rural Market Centres.
- Train the telecentre staff.
- Enhance the RUPP e-governance web site.
- Enhance the RUPP e-commerce web site.
- Develop computer based training materials for skills development.

In the light of the foregoing background, the SPPD-RUPP pilot will have the following outcomes, which will contribute towards achieving Nepal's development targets relating to community empowerment and labour intensive development:

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- Increase the incomes of small-scale enterprises arising from the delivery of better information relating to market prices and market opportunities.
- Increase the incomes of small-scale enterprises arising from the easier access to training resources in enterprise management and trade skills.
- Increased development activity among communities, which is based on their own choices and priorities and on the exploitation of information assets.
- Increased incomes and participation in development activities for women and minority groups.
- Increased ability to utilise ICTs for achieving development goals as a result of greater awareness of the capability of ICTs as well as more widespread computer literacy.
- Increased incomes from additional opportunities for trade across market zones.
- More efficient and responsive local government services.
- Increased incomes arising from wider exposure to employment opportunities.

How ICT can be utilised to promote and implement good governance

How ICT can be utilised to promote and implement the principles and actions of good governance (e-governance) in a rural-urban setting.

The principles of e-governance are efficiency; quality of service, transparency and accountability. The e-governance aspect of the SPPD-RUPP pilot will be confined to urban municipal localities, although many municipal wards exhibit social, economic and geographical characteristics that are more commonly associated with rural environments. It is these wards that are being targeted by the pilot, in order to simulate a rural-urban setting. The Rural Market Centres (RMCs) where the pilot will be locating telecentres are situated in truly rural areas, but are outside the responsibility of the municipalities, and will not therefore have any direct use for the e-governance facilities.

Rural areas are typified by scattered settlements, villages and small towns, which may be a long way from the nearest major urban centre. Table 2 lists the characteristics that most rural areas share and how they can be alleviated by good governance (e-governance) in a rural-urban setting.

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Characteristics shared by most rural areas	Table 2. Effecting The Principles of E-governance			
	Efficiency	Quality of Service	Transparency	Accountability
Shortage or absence of public services and health and education services.	Public services can be extended beyond urban areas to reach more people.	Citizens in distant locations need not travel to urban centres to engage with government services.	Rural neglect can be reduced, and seen to be reduced.	Rural voters need not be distanced from urban decision-making that affects them. They can contribute towards the formulation of the services they require.
Shortage of qualified technical staff.	Rural people can contact urban experts	Access to urban expertise increases the value of information	Urban-based technical staff can more easily make themselves available to their rural clients.	
Geographical or topological features that militate against the establishment of a telecommunication network at affordable cost.	New ICTs that are indifferent to terrain and climate are becoming more affordable.		Remoteness is becoming less of a barrier and less of an excuse for rural neglect.	
Harsh climatic conditions which impose severe equipment constraints.	Ruggedised equipment is available and can contribute to disaster relief programmes.		Isolated communities can make their problems better understood by government agencies	
Limited economic activity, centred primarily on agriculture, fishing and cottage industries.	Technical support from government can be more easily accessible.	Digitised information can be drawn from a wide range of sources, reducing isolation.	Rural communities can monitor programmes designed for their benefit.	
Low per capita incomes, generally well below those in urban areas.	Rural citizens can use government services at less cost, e.g., by saving on travel expenses.	It can take less time for a rural citizen to complete a transaction with government.	E-procurement can be directed in favour of low-income rural producers.	Urban-based officials can respond more directly to rural demands.
Low population density.	On-line services have an unlimited reach and are not dependent on a critical mass of local customers.	Unserved communities can enjoy high quality services they were previously denied, at little extra cost to the provider.	Sparse populations can be more readily included in government programmes.	
High levels of traffic per telephone line due to the inadequacy of telecommunication services and the large numbers of users per line.	Rural telecommunication services are nearly always highly utilised, because there are few of them and they are highly useful to people who are distant from alternatives.			

How ICT can be used for promoting production, trade and commerce

How ICT can be used for promoting production, trade and commerce How ICT can be used for promoting production, trade and commerce (e-commerce) in a rural-urban setting.

The principle of e-commerce is doing business electronically. Its principal components are; electronic markets, electronic information exchange and electronic funds transfer. Table 3 lists the characteristics that most rural areas share and how ICT can be used for promoting production, trade and commerce (e-commerce) in a rural-urban setting.

Characteristics shared by most rural areas	Table 3. Effecting the Principal Components of E-Commerce		
	Electronic Markets	Electronic Information Exchange	Electronic Funds Transfer
Shortage or absence of public services and health and education services.	Private health and education providers can reach wider markets in rural areas.	Information on health and education can be disseminated much more widely.	Facilitates trade in information services.
Shortage of qualified technical staff.	Promotes trade in technical expertise, which can be rural-rural trade.	Overcomes isolation from sources of technical information.	Promotes trade in technical expertise, which can be rural-rural trade.
Geographical or topological features that militate against the establishment of a telecommunication network at affordable cost.	New ICTs that are indifferent to terrain and climate are becoming more affordable.		Remittances can be transferred to remote locations that have no financial services. Promotes trade that might not have been possible otherwise. Products can be marketed widely and payment can still effected remotely, if there is no local facility.
Harsh climatic conditions which impose severe equipment constraints.	Ruggedised equipment is available and can contribute to disaster relief programmes.		
Limited economic activity, centred primarily on agriculture, fishing and cottage industries.	Opens up new markets for existing and new products. Digital trade in digital goods is indifferent to geography.	Reveals diversification opportunities. Delivers training in the skills required to act on them.	
Low per capita incomes, generally well below those in urban areas.		Swings the balance of trade more in the favour of rural producers.	
Low population density.	Exposes partnering potential, for co-operatives and collective trade negotiations.		
High levels of traffic per telephone line due to the inadequacy of telecommunication services and the large numbers of users per line.	Shared communication means markets can include large numbers of people with relatively few devices.		

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How ICT will accomplish its objectives

How ICT will accomplish its objectives: a strategic approach, the “knowledge infrastructure” required, and the partnership institutions and bodies that will make-up the infrastructure: the skills that will be required to plan, institute and run ICT; and where they can be found or acquired; the sequential stages (i.e. intermediate objectives) for instituting and operating ICT; and the roles, tasks and activities involved; and what institutions and private sector organisations will or could perform the roles.

The skills that will be required to plan, institute and run ICT	The partnership institutions and bodies that will make-up the knowledge infrastructure and the institutions and private sector organisations to perform the roles										
	SPPD-RUPP	RUPP	FNCCI	CCIs	WEAN	MuAN	Municipalities	Wards	TLOs	Software Development Contractor	Training Contractor
Project management	X	X									
Telecentre management		X		X			X	X	X		
Infomobilisation					X		X	X	X		
Technical support							X	X			
Software development	X									X	
Training	X		X			X					X
Project evaluation	X						X		X		

The sequential stages (i.e. intermediate objectives) for instituting and operating ICT	The roles, tasks and activities involved							
	Project design	Telecentre management	Telecentre installation	Infomobilisation	Technical support	Software development	Training	Project evaluation
Design equipment deployment	X							
Purchase equipment	X							
Set up telecentres		X	X	X	X	X		
Develop software						X		
Conduct training			X				X	
Operate telecentres	X	X		X	X		X	X
Devise evaluation scheme	X	X						X
Conduct evaluation	X	X						X

What other conditions and facilities need to be in place

What other conditions and facilities need to be in place or need to accompany and complement the implementation of the ICT Strategic Plan of Action in order that information and skills acquired can be used effectively to achieve social and economic development.

As with social and community mobilisation, ICTs for development in the form of community telecentres are not amenable to blueprint approaches. Local factors will significantly influence outcomes; personalities, culture, relationships, and entrenched interests. Telecentres fulfil a social role by disseminating useful information capable of promoting social and economic well-being. This might include, but need not be limited to the following:

- Government information
- Market prices
- Health information
- Employment opportunities
- Investment opportunities
- Credit and enterprise development information
- Educational resources
- Farming information
- Weather

The centre may or may not charge for such information, but its operations must incorporate mechanisms for community outreach that enable it to proactively locate and disseminate such information. Accordingly, it works in close co-operation with existing forms of community development, either government departments or non-government organisations, in discovering and responding to the information needs of the community, and igniting its aspirations towards development that is based on information assets. At the same time, and in order to promote financial sustainability, telecentres often provide information related to services that customers might be willing to pay for. In order to properly fulfil its development objectives, the community telecentre should incorporate activities that are specifically pro-poor. This is because the default with ICTs is that they will benefit those who are already advantaged; the better off and better educated, and whilst that which might be introduced that benefits the poor can usually be used to benefit the rich, it doesn't always work the other way round. Additionally, telecentres that make a significant contribution to community development often forge mutually beneficial partnerships with suitable organisations and institutions, in a way that achieves both their objectives. Another source of synergy in telecentre management comes from networking among themselves, on the basis of each confronting similar difficulties and being able to learn from each other's experiences. As they are electronically connected, there are few barriers to achieving this type of leveraging of learning.

The types and extent of resources and facilities required

The types and extent of resources (human and other kinds) and facilities required to plan, implement and maintain an ICT Strategic Plan of Action.

Human Resources	Plan	Implement	Maintain
Project management	1manager	1manager	1manager
Telecentre management		17 managers	17 managers
Infomobilisation			17 mobilisers
Technical support			17 technicians
Software development		1 software engineer	
Training		1 trainer	
Project evaluation			1consultant

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Other Resources	Plan	Implement	Maintain
Computers and peripherals with maintenance and supplies		17	17
Furnished accommodation		17	17
Electricity		Regular and reliable supply to 17 telecentres	Regular and reliable supply
Internet access		Reliable connections to 17 telecentres	Reliable connections to 17 telecentres
Software		E-commerce and e-governance web sites at 17 telecentres	E-commerce and e-governance web sites at 17 telecentres, plus other implementations
Partnerships	RUPP	RUPP, FNCCI, CCI's, WEAN, AEC Municipalities, TLOs	RUPP, FNCCI, CCI's, WEAN, AEC Municipalities, TLOs

Capacities

The successful implementation of Strategic Plan of Action remains contingent largely upon the capacity of key stakeholders to capitalize on the benefits offered by improved access to information and knowledge resources. And this capacity is defined not only in terms of technical skills framework, but also the ability to re-engineer the existing systems, evaluate deeply entrenched institutional norms and bring about that intellectual and cultural shifts so crucial for successful implementation of ICT's based development models. It is within these contexts that capacity gap analyses of key institutions and stakeholders – TLO's/TC users committees, VDC's, municipalities, CCI's and FNCCI/AEC - are to be carried out with a view to designing appropriate response mechanism to address these gaps. The pilot implementation does envisage the need to enhance capacities of key stakeholders for them to be able to fully exploit opportunities offered by ICTs and accordingly makes provision for conducting workshops, seminars and interaction programmes both at the local and central levels

Content Development

E-governance

The Inception Report listed a number of measures to extend e-governance that were derived from the statement of responsibilities of Municipalities in the Local Governance Act, and which are in support of the Act's general principle of decentralised governance. The SPPD-RUPP pilot will develop these according to the choices of individual municipalities as to which they would prefer to implement. Table 4 maps the measures to extend e-governance to the principles of e-governance, which will help the municipalities to choose those of interest to them, based on their strategic intensions. Ultimately, all the applications could be

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develop and implemented on the e-governance web site, but given the limited time for the pilot project, it is advisable at this stage to focus on a subset of them in order to be able to demonstrate their impact. In that regard, there is no preference from the point of view of the pilot as to which applications are developed first, and the choice is more appropriately left to the implementing authorities.

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Table 4. Measures to extend e-governance; their relationship with the principles of e-governance

Recommended measures	Description	Contributes to:			
		Efficiency	Quality of Service	Transparency	Accountability
1. Statement of Property	Public declaration of the moveable and immovable property of the Member of the municipality and his/her family.			X	
2. Performance Opinion Poll (W)	Continuous public rating of the ward committee's performance against its statutory functions and duties.	X			X
3. Audit Report	On-line publication of the audit report			X	
4. Municipal Payroll	Public on-line declaration of employees and their ranks and duties with associated pay scales.			X	
5. Municipal Byelaws	On-line publication of byelaws		X		
6. Performance Opinion Poll (M)	Continuous public rating of the municipality performance against its statutory functions and duties.	X			X
7. Inventory of Helpless Children	Public list of helpless, orphan or disabled children.		X		
8. Distinguished Persons	Public commendation of distinguished persons.		X		
9. Literacy Programme	To eradicate literacy from the municipality area.		X		
10. Library Catalogue	On-line catalogue of library materials	X	X		
11. Unemployment and Job Register	Collect data of unemployed persons and match to job vacancies. On line register of skills of unemployed persons.	X	X		
12. NGO Web Sites	Help consumer groups and other NGOs by providing space for their web sites.		X		
13. Development Plans (M)	Municipality development plans on-line				X
14. Development	Ward development plans on-line				X

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Plans (W)					
15. Implemented Projects	On-line information on projects selected for implementation.				X
16. Statements of Expenditures	The municipality has to publicly inform on its incomes and expenditures in all of its wards.			X	
17. Tax Submissions	On-line submission forms for various taxes.	X	X		
18. Public Forum	Interactive web site for public submission of complaints, with their associated responses.	X			X
19. Municipal Procurement	On-line tenders, bids, quotations and pre-qualification submissions. Use of the B2B e-commerce web site for procurement from preferred suppliers, especially cottage and small industries in the municipal area.	X		X	
20. Cultural Inventory	On-line inventory of the culturally and religiously important places within the municipality area		X		
21. Public Health Programmes	On-line programmes for family planning, mother and child welfare, vaccination, nutrition, population education and public health.	X	X		
22. Cooperative Assistance Programme	On-line assistance for the development of cooperatives.		X		
23. RUPP Internalisation	On-line materials in support of RUPP internalisation, for community mobilisation; TLO formation, savings and loans, obtaining training and other inputs.		X		

E-commerce

The activities of pilot implementation in the e-commerce arena will revolve around current B2B initiatives of RUPP. Enhancements will be made in the current user interface of B2B portal along with incorporation of monitoring and data mining facilities. A segment on auctions and spot marketing will also be incorporated. A vertical B2B model around a specific product category will also be developed by forming alliances with institutions like AEC and WEAN during the piloting and will be integrated into current B2B initiative of RUPP. The product category around which vertical B2B model will be developed will be decided jointly by SPPD and RUPP/UNDP.

The fact remains however that e-commerce is more about business models and strategies than about technology. The primary focus of the pilot implementation will therefore be on closely monitoring current B2B initiative with a view to ascertaining whether it embraces appropriate and feasible business models and to what extent it has been able to create value to its key stakeholders and foster rural-urban linkages. This will require close coordination with TLO members, local chapters of CCI and FNCCI/AEC. Based upon these findings, concrete recommendations will be made in the refined SPA and feasibility study for the enhancement of B2B initiative. The feasibility study suggests a development trajectory for B2B in terms of developing it into an e-marketplace with integrated value chain.

Institutional Ownership

It was decided by the project promoters in a meeting on 8th July 2003 to allow the steering committee of the SPPD-RUPP pilot project to decide upon or recommend the most suitable institutional home for the project. Although this had not taken place by 8th August 2003, there was no impact on project progress, but it remains as an outstanding action item to be completed during the implementation stage. Once determined, one of the initial tasks of the chosen institution will be to agree suitable mechanisms for other relevant ministries to also feel ownership of the project, e.g., the Ministry of Local Development, the Ministry of Information and Communication and the Ministry of Science and Technology. Of particular relevance is the institutional home and ownership of the refined Strategic Plan of Action that will emerge from the pilot.

Partnerships

ICTs For Development (ICT4D) – Infomobilisation Training

The SPPD-RUPP pilot will partner with the ICT4D project under the Ministry of Science and Technology in order to formulate and test a training programme for Infomobilisation, the methodology for helping communities make the most of their telecentres. This was agreed with the National Programme Manager in a meeting on 5th August 2003. The ICT4D project has been provided with a description of the methodology and a proposed outline for the course content and this appears in Annex 1. The opportunity exists to leverage the combined resources of the two projects in order to develop, refine and package the Infomobilisation methodology into a robust and replicable development tool capable of being applied across a wide population of potential users of ICTs for community development.

SPPD-RUPP has been supplied with a comprehensive telecentre training manual that can be used to support training⁴.

WEAN

The Women's Enterprise Association Nepal (WEAN) has helped more 200,000 village based women's micro-enterprises scattered throughout the country. It is an ideal partner organisation for the SPPD-RUPP pilot that will provide it with the following strengths:

- programme support for women
- pro-poor focus
- disadvantaged minority focus, e.g. the Tharu ethnic minority/caste in the Nepalgunj area
- e-commerce opportunities, in women's products.

At the time of preparing this report, the leading personality in WEAN was incapacitated and unavailable for consultations. It is recommended that as soon as she is available, the pilot mounts a collaborative arrangement that would enable WEAN members to make good use of the e-commerce facilities.

Agro Enterprise Centre (AEC)

AEC is a body of the FNCCI that collects and distributes market prices for 150 commodities to 18 market centres throughout Nepal. It has been working in partnership with RUPP, whose staff supply market prices daily from 13 of the market centres. AEC's mission is "to expand and strengthen private market-oriented agro-enterprises in order to increase the value and volume of high value products sold domestically and internationally." Its market information service is one component of this. At a meeting with the Executive Director on 6th August 2003, it was re-affirmed that AEC will maintain the B2B web site and that it is willing to become the central hub for B2B developments for trade in agricultural, and associated, products. The vision for a national e-market place that has been outline in the Inception Report was described and it seems to be in harmony with the initiatives that AEC is planning or would be interested to implement. These relate to; extending the reach of ICTs to rural locations, adding value to market prices with further information of relevance to farmers and agri-business, such as international regulations, and promoting enterprise development among micro-agri-businesses, such as moving along the value chain and finding overseas buyers.

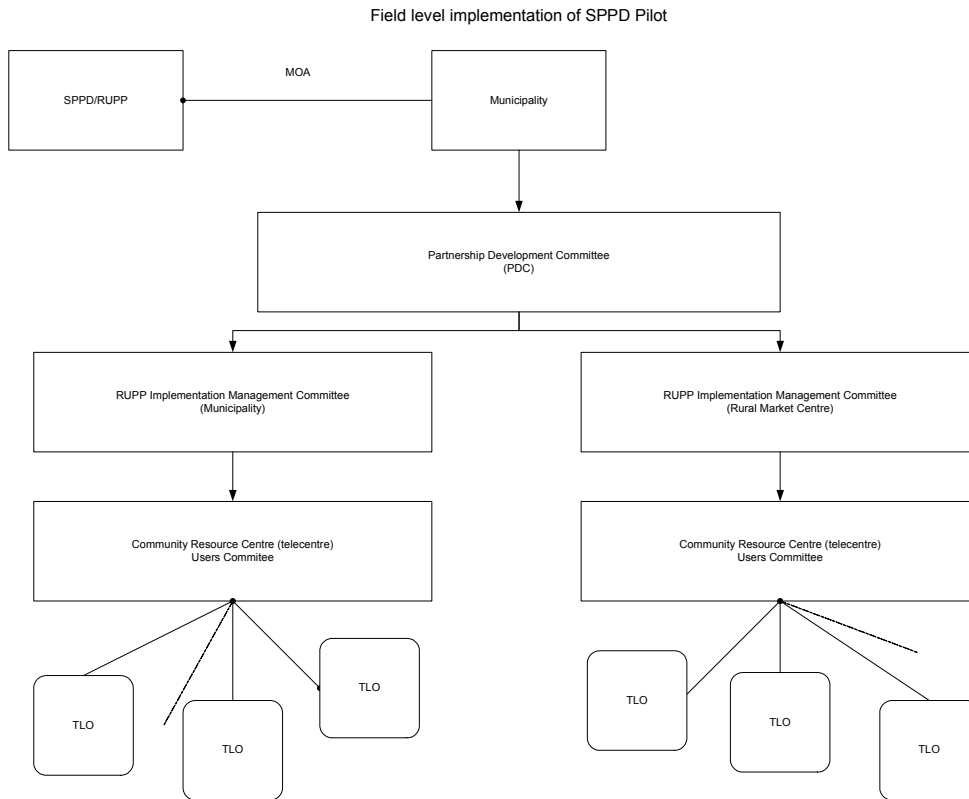
Telecentre Operational Modalities

Organisation

The following organisational arrangement is proposed for the SPPD-RUPP pilot:

⁴ Handbook for Telecentre Staffs, Prof. Royal D. Colle and Raul Roman, Cornell University, Ithaca, New York, USA, October 2002. The authors have given permission to use the manual in this project and also to have it translated into Nepali.

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Telecentre User Committee

Telecentres benefit from having a permanent user committee, which is responsible for guiding the whole process of starting the telecentre and then, on a long-term basis, for ensuring its continued success and development. Depending on the local legal requirements, the user committee can serve as the governing body or in an advisory role. A user committee will normally consist of members of the community who have a keen interest in starting a telecentre. Additional members of a user committee may be appointed at a public meeting to which members of the community are invited.

The primary bodies for overseeing the SPPD-RUPP telecentres are the Municipal, Ward and VDC authorities, but it is not expected that they would have all the skills and experience necessary to set up telecentres unaided. They must be able to select and recruit people who have the skills that are needed to plan, establish and guide the operations of the telecentre. A user committee should be:

- representative of the community.
- committed to the community and to the telecentre.
- active - user committee members who only attend meetings and do nothing else are of no use to the telecentre or the community

The user committee should consist of at least the following:

- The telecentre manager
Reports activities to the committee and acts on their instructions
- Representatives from the community

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As the telecentre must serve the residents of its community, so community voices need to be heard on the user committee. This is critical for identifying the most appropriate services, and for generating a sense of ownership of the telecentre. Community representatives would be drawn from TLOs, school governing bodies, local NGOs, religious institutions, community service agencies etc.

- **Representatives from the local business sector**
Representatives from the local business community may be able to offer special skills and expertise and business support and advise on operations. E.g., an electrical repair shop may help with the technology; a construction company may help with the buildings.
- **Representatives from the education community**
Representatives from the educational community are important, as this sector is often one of the biggest potential customers of telecentre services. Representatives may come from local schools and their governing bodies; community colleges; universities; libraries; museums; or adult education programmes. User committee members from the educational community will offer an understanding of how this sector works and what the possibilities are. They may also be able to identify volunteer trainers for the telecentre. The local school can provide useful input concerning use of the telecentre by school pupils and teachers offering tuition.
- **Other professionals**
People with technology expertise, experience in finance and marketing, and legal expertise can support the operations of the telecentre. An accountant will be needed to set up an accounting system to generate accurate accounting records to make sure that the telecentre keeps within its budget and plans properly to cover expected and unexpected costs. Only a full set of accounts will make it possible to set the prices for services to ensure that they are sustainable. The pilot will expect proper the tracking and reporting of income and expenses of the telecentre.
- **Publicity**
Publicizing the telecentre and what it offers is essential to its success. The committee needs to include people who have well developed connections with wide sections of the community. Word of mouth is one of the most effective marketing tools, and high profile business people or those in regular contact with the public during their daily activities can help achieve a strong result. Publicity and promotions experience, such as the ability to write articles for newspapers and newsletters or help set up open days and display stalls is also very useful.

The functions of the User Committee include:

- set the overall directions, guidelines and strategies for the telecentre.
- monitor the use of the centre and its impact on the community.
- develop policies and procedures relating to membership, usage, data collection, financial management and other operations.
- help to obtain on-going funding for the telecentre.
- seek new directions for the telecentre, where possible.
- observe legal requirements.
- provide specialist advice.

The user committee is responsible for:

- **Being a good employer**
This includes signing contracts with the manager and other staff members; ensuring appropriate taxation arrangements are accounted; ensuring that working conditions

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are safe; and seeing that staff are treated fairly and in accordance with legislation governing equal opportunity employment, unfair dismissal procedures, etc.

- Providing services to the community
It must provide safe conditions for public access to the telecentre; maintain the telecentre building and equipment; and arrange for any applicable insurance coverage as required.
- Accounting for telecentre finances
It must ensure that there are proper accounting processes, that annual budgets are met and an annual audited statement is prepared. It must also ensure that the telecentre staff or manager maintains a cash flow chart monthly, and that quarterly and annual financial reports are prepared.
- Continuing evaluation and monitoring of the telecentre
To make sure that the telecentre continues to be sustainable and provide for and anticipate the needs of the community, there must be an on-going process of monitoring and evaluation. The SPPD-RUPP pilot will require this.

The Telecentre Manager

The telecentre manager performs the following essential functions:

- Attend the telecentre daily between the times agreed with the user committee.
- Manage the day-to-day operations of the telecentre.
- Assist the user committee in activities to meet the objectives of the centre.
- Set up and maintain a logging system for using the computers and other equipment.
- Supervise and maintain the telecentre security system.
- Sign up users and introduce them to the telecentre.
- Show users and other staff how to use all of the telecentre equipment.
- Link to educational and other organisations in the community.
- Arrange tutorial and study assistance if needed.
- Organise self-help groups, orientation programmes and social events.
- Maintain suitable records for the telecentre.
- Be responsible for the management, supervision and appraisal of staff members, ensuring that they perform their duties in accordance with their job descriptions, or as specified by the user committee.
- Keep up to date with all new developments in the community concerning education, training, technology, communication, information and business enterprise.
- Undertake training when necessary.
- In consultation with the user committee and other relevant people, negotiate and co-ordinate employment and training opportunities for telecentre users when needed.
- Together with the user committee, formulate, develop and review policies and procedures relating to membership of the telecentre, usage, data collection, financial management, and other operations of the telecentre.
- Ensure that all policies and procedures are implemented and adhered to.
- Promote the telecentre.
- Plan and co-ordinate activities to increase the number of telecentre users.
- Advertise the services offered by the telecentre.
- Identify and develop a network of users or potential users of the telecentre.
- Keep the community informed of the activities of the telecentre.
- Purchase appropriate hardware and software for the telecentre in consultation with the committee.
- Ensure that the facilities of the telecentre are maintained in good working order.
- Advise the user committee of any future equipment and service requirements.

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- Develop and maintain a database of community skills.
- Develop and maintain a database of potential funding agencies.
- Seek on-going funding for the telecentre by sending out fundraising applications, applying for government grants, etc.
- Initiate and maintain revenue-generating (money-earning) programmes to achieve self-sufficiency for the telecentre.
- Provide information, assistance and advice to telecentre users.
- Take responsibility for the administration of any money collected by the telecentre on a daily basis.
- Provide written reports to the committee, SPPD-RUPP, and others, as required.
- Together with the telecentre user committee, be responsible for the on-going evaluation of the telecentre.
- Attend committee meetings and present monthly reports on the activities, usage and achievements of the telecentre and manager.
- Undertake additional tasks to benefit to the telecentre as directed by the user committee.

The telecentre manager should give priority to promoting the e-governance and e-commerce facilities that are being implemented by RUPP. In addition, the telecentre manager must analyse the community to judge how best to meet its information and training needs; in health, agriculture, education, government and other areas. An enterprising telecentre manager can take advantage of existing online services. The alert telecentre manager will explore opportunities in all areas where information can contribute to community development. The manager will look beyond the excitement of computers and the Internet, and explore the potential of other information, education and entertainment media such as CD-ROMs, radio, audiocassettes, and mobile phones.

Staff

Staff of the telecentre assist the manager in performing his/her duties. Staff may consist of volunteers drawn from the community, possibly pupils who receive free time on the computers in return for their services. Typical daily activities include:

- Inspect the centre at opening and closing time as well as throughout the day
- Ensure the equipment is always working properly, that the facilities are clean and that the printers, fax machines and photocopiers are always filled with paper.
- Plug in and switch on all electrical equipment before the start of the business day.
- Check all telephones for a dial tone and, at the close of the day, generate a report of the daily business.
- Check that the computers and printers are working.
- Record the number of spoiled photocopier and printer papers.
- Assist customers with their information searches.
- Ensure that there is enough paper in the printer, photocopier and fax machine and that there is a spare supply of paper and toner. (There should always be enough spare items for all the telecentre's needs for a period of time which is twice as long as the average delivery time)
- Service the equipment regularly
- Keep the telecentre clean, and have any needed repairs made immediately to the premises, furniture and equipment.
- Ask all customers when they leave if they are satisfied. (Customers will learn that their satisfaction is important, and, moreover, they might provide useful information.)
- Clean the equipment regularly
- Inspect and register the condition of the premises and equipment.
- Complete the daily report on the services rendered and the finances involved which will be submitted to the committee.

- Collect complaint and/or fault (breakdown) forms and add them to the daily report.

Training

The following training is required:

- Telecentre Management, including
 - Infomobilisation
 - Enterprise management
- Telecentre operations (for staff)
 - Infomobilisation

The training requirements for Infomobilisation are outlined in annex 1.

Daily Operations

The telecentre should be open at times decided by the user committee. Normally these would be times at which the community are available to use the centre's services, which often means opening in the evening. Staff service customers and perform the community outreach functions specified in the Infomobilisation training course. Initially, charges will not be levied for telecentre services, but will be introduced gradually as the manager and user committee see fit. In view of the experimental/research aspect of the pilot project, the manager of the centre is required to keep a daily diary of all events pertaining to the operation of the centre and including data on the number of people who visited the centre. The telecentre should maintain an activity log for this purpose. It should record the following:

- number of visitors
- purpose of visit
- comments regarding visitor's satisfaction
- equipment breakdowns, time and duration
- power failures, time and duration
- expenditures
- events
- etc.

Financial Sustainability

Financial sustainability relates to the economic capacity of a telecentre to survive through time. If it is required that a telecentre is to at least contribute towards its own financial requirements, it becomes necessary to think of the telecentre as a business. The telecentre then becomes subject to the same entrepreneurial and managerial principles that govern any other business. However, this does not preclude the telecentre from carrying out its social role of inducing human development. Financial sustainability of the telecentre is strongly linked to the issues of providing for the needs of the community, of achieving community participation, of the entrepreneurial creativity of the telecentre manager, and of the marketing of the centre.

There is no single path for all telecentres to achieve financial sustainability. There is no magic formula. Creativity is a very important element when trying to find ways to make a telecentre work in a specific community and to becoming financially viable. However, the first step is always to understand what are the information and communication needs of the community. The financial success of the telecentre will depend on the relevance of the services provided to the community. Accordingly, all telecentres need a business plan, even those that do not rely on charging the community for services.

The Business Plan

A business plan describes everything about the telecentre. It is a detailed statement of the objectives of the telecentre and the strategies for achieving the objectives, and it explains how progress will be assessed on an on-going basis. The plan will include the telecentre's budget. There are a number of key elements to a good business plan:

- The programme focus of the telecentre.
For the SPPD-RUPP telecentres, the programme focus consists of the enhanced RUPP e-governance and e-commerce web sites. But the telecentres will not attain financial sustainability by promoting only these services. The business plan will need to explain how the telecentre has assessed the wider needs of the community. A thorough audit of the community has to be conducted, as described by the Infomediation methodology.
- Description of the telecentre's services and programmes.
The details of this section will emerge from the Infomobilisation methodology. It will describe how the telecentre's services will meet community needs, by first stating what those needs are and then detailing how the centre will address them.
- Community partners.
This section will give information about what the user committee has done to develop partnerships with other organisations and groupings in the community. Productive partnerships of various kinds have been shown to be highly contributive to telecentre success. The ability of the telecentre authorities to foster productive partnerships with community groups is a key indicator of their effectiveness. This part of the business plan will name the telecentre's partners and describe their aims and how the telecentre will contribute towards achieving them.
- User projections.
This section of the plan will address the following questions:
 - How many people will use each of the telecentre's different services and programmes?
 - How will this number increase, as the telecentre becomes better known?
 - What will a weekly or monthly schedule for the telecentre look like?
 - How will the schedule change at different times of the year? For example, during school holidays, there will be more school students attending programmes during the daytime. In holiday seasons, there might be more tourists visiting the area.
- User fees.
This section, considers the money that will be charged for different services, such as fees for fax and telephone, Internet access (for example, per half-hour), photocopying, etc. Other fees may relate to different costs for different user groups, say a teacher using the centre for extra-curricular tuition classes, or a local NGO holding a meeting. However, whilst the telecentre needs to generate income, it must not be out of reach of the people in the community. Its future depends on being accessible to the whole community.
- Regular expenses.
This list is a summary of what will be needed:
 - Premises (rent, utilities, security, insurance, maintenance, cleaning, etc.).
 - Staff (including salaries, benefits and incentives for volunteers).
 - Marketing and promotion.
 - Equipment and furniture (including replacement and repair costs).

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- Software (including purchases, upgrading and replacements).
 - Computer and office supplies.
 - On-line services and Internet accounts.
 - Publications and reference materials.
 - Budget for special events (such as the launch of the telecentre or an open day where refreshments might be provided).
- Marketing the telecentre.
A description of the actions to be taken to inform the community of the services that the telecentre will offer. Covers:
- What media will be used.
 - What promotional materials to produce.
 - What meetings are planned for special presentations.
 - How will community partners assist with promoting the telecentre.
 - How the telecentre will be marketed to those who cannot read or write, or are disabled.
- Evaluation of telecentre services.
It is necessary to define a self-evaluation plan in order to determine if the telecentre is meeting its objectives. The evaluation methods chosen must be explained in detail and would include the following:
- Sign-in/sign-out procedures that give an accurate record of who uses the telecentre and for how long.
 - Volunteer logs to record tasks undertaken by volunteers, difficulties encountered and suggestions for improvements.
 - A comments box where users may place their comments, suggestions and criticisms.
 - Plans for regular meetings with representatives of key user groups, volunteers and staff in which people can express their needs and concerns.
 - Appointing a representative of a key user group to the user committee so that he or she can give feed-back directly to the highest decision-making structure.
 - Teacher/instructor logs which include plans for classes as well as follow-up notes.
- Possible problems and solutions.
Certain problems can be anticipated, so it is sensible to plan for them in advance and to prepare contingency plans to deal with them. Here is a list of potential problems:
- Hardware breakdown or malfunction.
 - Unreliable technical assistance.
 - Not enough participants/customers, or too many.
 - The schedule is not appropriate to meet the needs of key user groups.
 - There is local opposition to the telecentre.
 - Anticipated funds may be delayed or may not be forthcoming at all.
 - Volunteers prove to be unreliable.
 - The telecentre premises may be too small, too hot or too cold.
 - There may not be sufficient staff to sustain all the telecentre's programmes.
 - Telecentre staff may not be skilled in dealing with customers.
 - Telecommunications connections are unreliable.
 - Students may refuse to obey the rules.
- Budget and financial planning.
It is necessary to show that the telecentre is able to raise sufficient funds to keep running, either from donor agencies, government or users or a combination of these. This will need a summary of projected costs and a cash flow worksheet describing

on-going expenses and revenue for the first year of the telecentre's life. This will probably require the assistance of an accountant. Perhaps there is an accountant on the user committee who would be willing to volunteer his or her services.

The telecentre business plan should be reviewed by the user committee every year to accommodate new developments and new ideas. A business plan should be continuously maintained as it has on-going value in the sense that:

- It is a guide to setting up and running the telecentre.
- It explains to partners and funders why the telecentre needs their help.
- It is used to raise funds for the telecentre.
- It acts as background material for staff and volunteers.
- It sets the telecentre's on-going operational budget.

Establishing the Objectives of the Telecentre

Every telecentre is established with the main objective of providing members of a community with access to computer and telecommunications technology. A telecentre cannot be viable unless it refines this broad objective to suit the needs of specific community groups. This research process is one of the critical responsibilities of the telecentre's user committee. The objectives of a telecentre will also expand or shift over time. As user patterns become clearer and users become more and more empowered and skilled, the user committee will make further decisions on the most appropriate groups for the telecentre to serve and the most productive operating hours.

Initially, telecentre objectives will be determined by the answers to questions such as:

- What are the needs of the community?
- Approximately how many people are going to use the telecentre?
- What is the key target group?
- What services will be offered?
- What networks or partnerships with other organisations exist or can be developed?
- How much money is available for running the telecentre?
- How many paid staff will be needed?
- How will staff be recruited?
- How many volunteers can be relied upon?
- How many hours of the day will the telecentre be open?

Budgeting

The telecentre budget is made up of all the costs and income sources. There are two kinds of costs:

- Capital expenses and one-time expenses for start-up; such as purchase of equipment, furniture and furnishings and renovations to premises, deposits to suppliers of electricity, telephone connections, etc.
- Expenses that will continue once the telecentre is operational; such as salaries, rental, equipment maintenance and replacement, insurance, software and computer supplies, marketing costs, telecommunications costs, educational materials, stationery and cleaning materials.

The other important section of the budget refers to the income projection. This is an estimate of the type, amount and sources of income that the telecentre expects to make. Income for the telecentre may be received from:

- Telecentre user fees.
- Telecentre memberships.
- The business community.

- Government subsidies and contracts for services.
- Grants from local organisations or funding agencies.
- Special fundraising events.
- Others.

Pricing Telecentre Services

All the services offered by the telecentre must be carefully and individually costed and priced. It is important to calculate what resources are needed for each task, including the amount of staff time. Ideally, the prices charged for the goods and services should be affordable for small community groups and large community education projects; large businesses and small entrepreneurs; and government departments and state institutions while, at the same time, the telecentre realises a profit.

One method to calculate charges is to establish the cost of each service for the centre, and add a certain percentage to generate the required income. The percentage added to the costs should not produce a final price that members of the community cannot afford. Test the price with community members beforehand or do a simple survey of different community groups before making it public. Finally, it is necessary to be attentive to the response received from the community once the service begins to be offered, and act accordingly.

Calculations of costs should include all types of costs involved in providing the service, i.e. all current costs of the centre, maintenance costs, supplies, salaries, etc. Adding 20% to the final cost as a reference and observing how users react to these prices is a good starting point. There are several types of fees that might be charged:

- Individual user fees.
Additionally to the individual service pricing, frequent and regular users deserve a different charge because they form the clientele base. For special clients, it may be worthwhile offering a periodical fee (weekly, monthly, annually). This is not only a reward to the regular clientele and a way to retain the best customers, but it can also be an incentive to attract new users.
- Collective user fees.
Besides individuals and frequent users, there may be a need to also consider collective clients, who may deserve a different fee. This may include groups of students, farming organizations, or women's self-help groups in the community.
- Corporate tariff.
A different way of looking at collective users is focusing on organizations that are interested in the services of the telecentre, rather than the specific persons who actually come to the telecentre. It may be that a certain local business or other collective organization is interested in using the services of the centre. A corporate tariff might be workable for those organizations.
- Institutional charge.
There may be a potential collective client in the community, which is part of a larger organization. For example, governmental agencies or public services providers may have a branch or a representative in the community. These types of clients may also be considered as corporate clients, and it may be more profitable to visit the headquarters to arrange a fixed fee for the whole institution, rather than for just the branch in your community. The extra effort could produce extra income and more profit.

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- **Sponsorship.**
Another form of income can be obtained through sponsorship. An organization, such as an agricultural cooperative, will pay to have particular information available in the telecentre. This may be in the form of a computer page, audiocassettes, or printed materials. The information is usually made available free of charge. A typical example is a contract service for a public agency such as the government health service.
- **Memberships.**
Members of the community may be approached to become “official” supporters by contributing money for telecentre membership even if they are not users. In some countries, this kind of income supports telecentres, community radio stations, libraries and other public benefit organizations. The telecentre can develop some kind of visible symbol that gives public recognition to the donors.
- **Services free of charge.**
Besides being sustainable, the telecentre’s mission is to serve everyone in the community with certain basic services. It could be that, in certain situations, people simply lack the funds to use a service they may need. This may be an emergency such as a personal accident or any problem that could be solved through the resources of the centre by people who cannot pay, or who lack the funds at that particular time.

Despite these measures, evidence seems to show that few telecentres are capable of attaining self-financing sustainability in their early years. The core issue of financial sustainability of development telecentres is dependent upon their placing simultaneous emphasis on the communication functions as well as the information functions that telecentres perform. Achieving financial sustainability is wholly dependent on serving the needs of the community. Serving its community with information that is locally relevant, useful and useable is a significant function of a telecentre. This recognition often changes a centre’s otherwise techno-centric character, shifting its emphasis from the delivery of leading edge technology to previously under-served populations, to that of putting the local community in a position of priority. This makes the telecentre considerably more sustainable programmatically, which in turn leads to the increased likelihood of it becoming more sustainable financially, but it tends to moderate the allure, even glamour, that is sometimes associated with the introduction of frontline technologies among ‘un-reached’ populations.

Work Schedule for Pilot Activities

Activities	2003												Remarks
	August	September	October	November	December								
A. Expanding access to ICT's													
Site selection													SPPD/ RUPP
Procurement and delivery of equipment													
MoU with municipalities/RMC's													
Selection of staff for TC (TOR Revision of MCF's, ward secretaries)													
Orientation for TC staff/ info-mobilization													
Establishment of Telecentres													
Development of operational guidelines													
Launching of Telecentres													
Finalization of institutional home for piloting													
B. Implementing Development models													
i. E-Commerce													
Orientation to prospective e-market place stakeholders CCI, WEAN and LE's													SPPD/ RUPP
B2B Transition to eMarket place- identification of area for vertical integration													
Enhancement of RUPP's website to e-market place – vertical and horizontal portals													
ii. E-Governance													
Incorporation LSG provisions into e-government web sites													
Piloting integrated e-governance model – 3 municipalities													Nepalgunj, Pokhara and Biratnagar
C. Monitoring and evaluation													
Development of monitoring and evaluation tool													
Monitoring and evaluation													
D. Up-stream policy support													
Development of refined feasibility study and Strategic Plan of action (SPA)													



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Budget

Items	QTY	TYPE - A	TYPE - B	Total	Remarks
		NRs.	NRs.		
PC's	1	55,000	1	55,000	
Printer	1	25,000	1	25,000	
Modem	1	7,500	1	7,500	
Scanner	1	8,500	1	0	
UPS	1	7,500	1	7,500	
Web camera	1	4,500	1	4,500	
Tel conn.	1	7,000	1	5,000	
Internet	1	6,000	1	6,000	
Software		8,500		8,500	
Conting.	LS	3,500	LS	3,500	
Total		133,000		122,500	
Totals - (hardware and software for 1 TC):					
		133,000		122,500	
TYPE A telecentres (in RMC's)					
		8		133,000	1,064,000
TYPE B - telecentres (in municipal wards)					
		9		122,500	1,102,500
Total (hardware and software for 17 telecentres)				2,166,500	17 access points
<u>Operations Support</u>					
Info Mobilization support - RMC's		6		60,000	360,000
Telecom Support		17		18,000	306,000
Office management support		17		6,000	102,000
Preventative maintenance support		17		8,000	136,000
Community Information System (CIS)		6		15,000	90,000
					6 pilot sites for CIS
<u>Application Development</u>					
Refinement of e-com/ e-busi portals, implementation support to AEC					500,000
Orientation programme					170,000
<u>Communication infrastructure</u>					
Add 2 fax machines (Kahireni and					48,000
Grand total costs for SPPD pilot					3,878,500
Total Budget for SPPD pilot					3,806,438
Balance (total budget - total costs)					(72,063)
RUPP's contribution					72,063

Project Web Site

The SPPD-RUPP pilot implementation is intended to have its own web site. A web site skeleton is proposed as follows:

	<p>UN-HABITAT United Nations Human Settlements Programme</p>	
<p>Assessing the Feasibility of ICT as a Development Instrument for Rural-Urban Linkages in Nepal (SP/NEP/02/002) in collaboration with the Rural-Urban Partnerships Programme (RUPP) (NEP/01/020), under Support Services Policy and Programme Development (SPPD).</p>		
<p>PROJECT DOCUMENTS</p>	<p>LINKS</p>	
<p>Terms of Reference</p>	<p>Examples of ICTs for Human Development</p>	
<p>Project Inception Report</p>	<p>Case Studies</p>	
<p>Feasibility Study Report</p>	<p>Bytes For All</p>	
<p>Strategic Plan of Action</p>	<p>World Bank Development Gateway</p>	
<p>Project Photographs</p>	<p>UNDP Asia Pacific Information Development Programme (APDIP)</p>	
	<p>Nepal National ICT Policy</p>	
	<p>UNDP Nepal</p>	
	<p>The Electronic Journal on Information Systems in Developing Countries</p>	
	<p>Bibliography</p>	

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Refined Strategic Plan of Action

The following schedule is proposed for the evaluation and reporting activity, (Activity D. Up-stream policy support).

Schedule for Development of refined Strategic Plan of Action (SPA)

	Dec	From	To	Travel Mode	Travel time Hrs.	Telecentres	Activities		
Mon	1	Kathmandu					Orientation	Overnight	
Tue	2	Kathmandu Bharatpur Rajahar	Bharatpur Rajahar Bharatpur	Road Road Road	4 1 1	Ward X Rajahar RMC	Data collection Data collection	Bharatpur	
Wed	3	Bharatpur Hetauda Bhimphedi	Hetauda Bhimphedi Hetauda	Road Road Road	1.5 1.5 1.5	Ardasha TLO Bhimphedi VDC	Data collection Data collection	Hetauda	
Thu	4	Hetauda Khaireni	Khaireni Butwal	Road Road	2.5 1	Khaireni RMC Ward 15	Data collection Data collection	Butwal	
Fri	5	Butwal Bhaluwang TribhuvanNagar	Bhaluwang TribhuvanNagar Tulsipur	Road Road Road	3 1 1	Bhaluwang RMC Ward X	Data collection Data collection	Tulsipur	
Sat	6	Tulsipur Tulsipur Narayanpur Lamahi	Ward X Narayanpur Lamahi Nepalgunj	Road Road Road	1 1 2	Ward X Narayanpur RMC Ward X	Data collection Data collection Data collection	Nepalgunj	
Sun	7	Nepalgunj Nepalgunj	Tansen	Road	5	Ward 1 Ward 14	Data collection Data collection	Tansen	
Mon	8	Tansen Dulegaunda	Dulegaunda Pokhara	Road Road	4 1	Dulegaunda RMC	Data collection	Pokhara	
Tue	9	Pokhara				Ward 18	Data collection		
Wed	10	Pokhara	Kathmandu	Road	5.5			Kathmandu	
Thur	11	Kathmandu					Reporting		
Fri	12	Kathmandu	Biratnagar	Air	4	Ward X	Data collection		
Sat	13	Biratnagar	Rangeli	Road	1	Rangeli RMC	Data collection	Biratnagar	
Sun	14	Biratnagar	Kathmandu	Air	1+3		Reporting	Kathmandu	
Mon	15	Kathmandu					Reporting	Kathmandu	
Tue	16	Kathmandu					Reporting	Kathmandu	
Wed	17	Kathmandu					Reporting	Kathmandu	
Thur	18	Kathmandu					Reporting	Kathmandu	
Fri	19	Kathmandu					Reporting	Kathmandu	
Sat	20	Kathmandu	Refined Strategic Plan of Action						

Annex 1. Infomobilisation.

Creating a community learning system capable of empowering communities to use information for their own development.

The Social Dimensions of Information and Communication Technologies

Research into the use of ICTs for community development advocates a social vision for using ICTs to eliminate and/or redress the deeply rooted inequalities of modern societies. Such a vision is based on the following premises:

- Whilst connectivity is important, it is not sufficient to contribute to development.
- Equitable access, meaningful use, and social appropriation of ICT resources are all necessary to take advantage of available opportunities and achieve positive results.
- Certain enabling conditions must exist for ICTs to contribute effectively to development.

In this vision, ICTs are neither positive nor negative in themselves, but they are not neutral either. Left alone, they end up reproducing and deepening existing inequalities in society. The term social appropriation is used to encapsulate the vision, and it is used to describe the process that leads to the social transformations that occur as a result of using ICTs. Social appropriation occurs when Internet resources help transform daily life by contributing to the solution of concrete problems. Evidence of appropriation is not found in the use of ICTs, but rather in the changes that they have brought about in the real world. Only when Internet resources become useful tools for transforming everyday life do ICTs reach their full development potential. The social appropriation of ICTs for development can be demonstrated in a number of ways, such as: by offering better medical information to patients; improving the quality of education through the use of innovative teaching resources; introducing varied, relevant programming into community radio broadcasting; increasing sales of local products in the marketplace; disseminating the results of local research; and coordinating action among diverse groups with common goals.

Towards the Social Appropriation of ICTs

One way of achieving social appropriation is the methodology known as Infomobilisation. Infomobilisation is an organic process of change in which collaborative groups explore and learn about problems and solutions in an iterative manner. Infomobilisation is a collection of participative activities that ensure ICTs have optimal impacts for development within given communities. It provides a methodology to design technology and social systems simultaneously through a participative and incremental process that does not require coercion and creates no resistance to change. ICT architects and target community groups jointly determine how technology can be used to develop new ways of accomplishing group and community goals. System designers and system users jointly learn about the possibilities created by new technologies, and then they design systems to use them.

The methodology for Infomobilisation is based on socio-technical systems theory, which is an outgrowth of general systems theory and its application to the design of information systems in organisational settings. Socio-technical system theory claims that separate efforts to optimise the technical system and the social system will lead to sub-optimal results, and can even be infeasible. The observation is made that the same information system can be a success in one organisation/community but a failure in another, while the same organisation/community can experience success with one information system but fail with another. Hence, the information system and its context must be studied, understood, and managed together, not separately. Infomobilisation applies these theories to rural

communities in developing countries, where they are seen to be even more applicable than in commercial or government organisations because community actions are influenced more by social factors and individual choices than are organisational actions.

The applicability of a socially based approach to information systems in communities arises from information technology being an intellectual technology, as opposed to an industrial technology. Industrial technologies, like a water pump or a generator, typically have a fixed set of functionalities. Information technologies, however, have functionalities that are not fixed at the outset, but can be innovated endlessly, depending on the interaction with the people who implement and use them. In the process of its implementation within an information system, a given set of information technology becomes subject to the shaping influence of the intellects of its implementers and users, who can end up creating an information system that the inventors and promoters of the technology never had in mind.

Information technology then, once installed, can react with and extend the intellects of its implementers and users, who can then turn their transformed intellect to innovating even more functionalities for the technology, setting in motion an endless iterative sequence of action and learning. It has thus been shown that work systems are most effective when technology systems and social systems are closely aligned. Studies have also shown that when technology is used to enable new work systems where both social and technical systems change through a participative process, significant group performance improvement can be realized.

A Methodology for Applying Best Practices

In Infomobilisation, the focus is on concurrent processes of technological and social change and on the joint optimisation of human and technical processes within communities. The implication of Infomobilisation for the implementation of ICTs in development is that incremental and iterative development allows for a collaborative learning process based on evolving community needs. A large number of small projects are quickly implemented, rather than a few longer-term larger and riskier projects. Organisations typically encounter resistance to change when they try to introduce new technologies and a myriad number of methods have been devised to overcome this resistance. In the Business Schools, they call this “change management”. But Infomobilisation differs from change management in that it facilitates change in a way that avoids resistance by ensuring the technology is embedded into change processes that a community itself has instigated. Infomobilisation involves; adaptive planning, continuing change, community learning, disjointed incrementalism, adaptive learning, alignment of social and technological systems, participative values (as opposed to coercive), organic change (as opposed to directed change), discretionary coalitions, social and stakeholder groups, and outside/inside activists (as opposed to outside change agents).

Infomobilisation confronts communities with their information requirements. It addresses the design, delivery and utilisation of community information systems by;

- Defining community information requirements based on needs and priorities that have been expressed by the communities themselves,
- Igniting community aspirations and empowering communities with appropriate skills for fostering local development that is information-based,
- Expanding a community’s social capital through enhanced access to communication facilities and information resources,
- Embedding community based ICT services within existing economic, governance and social structures,
- Infusing enhanced capability for information access within communities,
- Achieving sustainability; of financing, service delivery and operating functionality,

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- Ensuring that benefits arising are not usurped by existing elites, and are equitably disseminated among the socially and economically disadvantaged groups,
- Extending and intensifying existing development programmes that carry a significant potential for additional community benefit from enhanced information management capabilities that are based on ICTs.

The methodology consists of the actions necessary to ensure that ICTs have optimal impacts for development within communities in developing countries. The process is made up of;

- Familiarising communities with their existing use and sources of information as well as with the gaps that exist between existing and desired information resources,
- Alerting communities to the potential application of information to their problem-solving efforts and to their development aspirations,
- Sensitising communities to the existence and accessibility of abundant information resources and to the capabilities of ICTs for accessing and manipulating information,
- Propelling communities towards the acquisition of the new knowledge they will require in order to exploit the power of ICTs,
- Empowering communities with information literacy; the skills necessary for the mastery of new media, the internet and multi-media,
- Motivating communities to apply ICTs to the new opportunities that become possible from their relationship with ICTs,
- Encouraging the collection, classification, preservation and dissemination of indigenous knowledge and cultural information artefacts,
- Fostering appropriate local mechanisms for sustaining the equipment, services and operations of community based ICTs.

Infomobilisation uses various participatory mechanisms for community engagement, including; household surveys, as well as base-line, community focus groups, group dynamics, user committees, training and orientation sessions and demonstrations, facilitated community conferences. These techniques comprise a community learning system, whereby the community starts by releasing its own potential for creating a better life, learning about the information they will need to help them achieve this, then satisfying those needs; and as a result of the experience becoming increasingly capable of understanding and exploiting information further to satisfy needs of a progressively higher order. The progression can be depicted as an iterative process of; action > evaluation of outcomes > community learning > knowledge acquisition > further action. In the same way that change management methodologies help organisations to accomplish the re-structuring of underlying patterns of behaviour and relationships that is necessary for ICTs to achieve their optimum outcomes, Infomobilisation helps communities undergo the same transformations in order to get the maximum development value out of their ICT resources. Table 1 lists the principal components of the Infomobilisation system.

Table 1. The Principal Components of Infomobilisation: Blending Community Mobilisation with Information for Development	
Focused on the Community	Focused on the Telecentre
Community based organisations	User committee
Savings and credit schemes	Staff
Information Focal Points (Infocals)	Community outreach:
Community asset mapping	▪ Telecentre marketing
Development planning	▪ Community surveys
Development implementation	▪ Community focus groups
	Evaluation

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Table 2 depicts the relationships between the principal components of Infomobilisation

Table 2. Mapping the Relationships between Community Mobilisation and Information for Development		
Entity	Relationship	Entity
community members	join	community based organisations
	join	saving and credit schemes
community based organisations	form	saving and credit schemes
	perform	community asset mapping
	appoint	infocals
	participate in	community outreach
	perform	development planning
	conduct	development implementation
Infocals	elect	telecentre user committee
	co-ordinate	development planning
	participate in	telecentre outreach activities
	provide information demands to	telecentre staff
	conduct	evaluation
	provide information for	community based organisations
saving and credit schemes	lend money to	community members
	support	development implementation
telecentre user committee	appoints	telecentre staff
	directs	evaluation
telecentre staff	conduct	community outreach
	provide information for	infocals
	provide information for	community based organisations
	provide information for	community members
	provide information for	development planning
	provide information for	development implementation
community outreach	provides information demands to	telecentre staff
	contributes to	development planning
	reports to	telecentre user committee
	reports to	Infocals
community asset mapping	reports to	evaluation
	contributes resources to	community outreach
	contributes resources to	development planning
	contributes resources to	development implementation
development planning	generates	development implementation
	reports to	telecentre staff
	reports to	telecentre user committee
	informs	evaluation
development implementation	provides benefits to	community based organisations
	provides benefits to	community members
evaluation	reports back to	Infocals
	reports back to	user committee
	reports back to	telecentre Staff

Teaching Infomobilisation

The following is a course outline for teaching Infomobilisation to community mobilisers who are already computer literate. People wishing to implement Infomobilisation who do not have these pre-requisite skills can obtain them from other training courses that are already in existence and available elsewhere.

Prerequisites	Infomobilisation Course Outline
	<ul style="list-style-type: none"> ▪ Social or community mobilisation skills ▪ Computer literacy
<p>Module 1 Learning objective Topics</p>	<p>Overview of ICTs in community development Understand the potential for ICTs to contribute to development, Which ICTS are contributing to development and their characteristics Examples, different approaches and their outcomes Lessons learned from contemporary experience</p>
<p>Module 2 Learning objective Topics</p>	<p>Telecentres; management and operations Know how to manage and operate a development telecentre Role of the telecentre Role of the telecentre manager Role of telecentre staff Telecentre success factors</p>
<p>Module 3 Learning objective Topics</p>	<p>Relationship between ICTs and community development Understand the conditions required for making it happen; appreciate the characteristics of communities that foster information-based development and the inhibitors that prevent it. Strategising for ICTs with development Mobilising useful content Targeting audiences</p>
<p>Module 4 Learning objective Topics</p>	<p>Telecentres; working with communities Know how to elicit information requirements from communities that will contribute towards local development Community asset mapping Surveys Focus groups Telecentre marketing</p>
<p>Module 5 Learning objective Topics</p>	<p>The Community Learning System Know how to establish a sustainable learning system within a community for using information to foster development. Development planning Evaluation Outcome mapping</p>
Resources	<p>Handbook for Telecentre Staffs, Prof. Royal D. Colle, Raul Roman, Cornell University, Ithaca, New York, USA, October 2002 Social Mobilisation Manual, Jaysingh Sah, Social Mobilisation Experimentation and Learning Centre, Nepal, Rampur, Chitwan, Nepal.</p>