# How to Scale Up Sustainable Telecenters?

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**Motoo Kusakabe**
**Senior Counsellor to the President**
**European Bank for Reconstruction and Development**

## Introduction

Telecenter is a very important tool to achieve universal access to telephone and Internet for the community which has previously no access to telecommunication or poor members of the community who cannot afford to buy telephone or a PC in his/her house. Telecenters provide not only the basic communication services, but also many social, economic services, such as e-learning, e- health, e-government and e-commerce, for the empowerment of the community members. Such Multi-Purpose Telecenter is deemed as one of the most important innovation in the world of development, similar to the micro-financing.

History of telecenters is a full of failures. Many of the earlier pilot telecenters created in Sub-Saharan Africa were considered as failure, due to lack of financial or operation sustainability. We should learn lessons from these initial failures and make a effort to identify a sustainable business model for the telecenters.

## Differences between pilots and scaling-up?

However, scaling up telecenter program is not simply identifying a sustainable model and replicating it. There are fundamental differences between pilot project, which create several telecenters and scaling up program which creates more than hundred and eventually thousands of telecenters nation-wide. There is a different kind of challenges in scaling up telecenters.

*Individual Project Design vs. National Strategy*
In the case of pilot projects, a project leader may worry just the design of individual project, but in the case of scaling up program, the project leader should much more concerned about the national ICT strategy which addresses a comprehensive plan to develop various components and policy prerequisites for the functioning of telecenters.

*Broad Stakeholders' Support*
In the case of pilot project, telecenters may be created, if there is a support from a donor and cooperation of a Line Ministry. In the case of scaling up, the range of stakeholders is much broader, sometimes involve top governmental leadership to various levels of local governments, community groups, civic organizations and private sectors.

*Financial Sustainability*
Major objective of a pilot project is to prove the concept of the telecenter in specific social and economic environment. In that sense, testing the nature and magnitude of development impact of the telecenter is the major objective and sometimes achieving the financial and operational sustainability is a subsidiary objective. In the case of scaling up, because of its large financial requirement, financial sustainability in some definition becomes a essential prerequisite of the program.

*Capacity Building*
Capacity building is the key component for the telecenter program both in pilots and scaling up. In the case of pilot program, the scale of capacity building is likely to be several telecenter managers and several staff specialists, which can be easily conducted by foreign consultants. But in the case of scaling up, magnitude of training needs are so large that there must be a domestic institutions which can provide capacity building function continuously and much broader scale. We need an institution building process to create such domestic capacity building capabilities.

*Financial Mechanism*
Creation of several pilot telecenters can be easily funded by donors' grants. Allocation of such grants is often ad-hoc, without permanent system to prioritize telecenter location, and to select telecenter managers. However, in the case of scaling up, Donors' grant may be too small to finance large scale operations. Therefore, there is a need for using national budget to finance the

telecenter scaling up. We need a legislation, policies and procedures to allocate public funding in a transparent manner.

**Four Players for Scaling Up Telecenters**

Telecenter system consists of four players and one target client, community:

*Community*
Community is the target client of the telecenters which originates demand for telecenter services and ultimate beneficiaries. Community members initially do not know what is the "telecenter" and what they provide to their life. But, once they become aware of the potential benefit of telecenters they know best what kind of services they want from telecenters,. Community should be involved in the design of telecenter services through participatory demand survey. At the same time, community could be a strong patron of the telecenters. Through in-kind contribution of premises and human services, they support the telecenters.

*Government*
The government plays important functions in deciding over-all ICT strategy and setting rules upon which telecenters can operate, compete and survive and leadership role in securing political support to the cause of telecenters necessary for using public resources.

*Telecenter Operators*
Telecenter operator is the person who actually runs the telecenter daily. In the entrepreneur based telecenter model which this presentation is based on, he is the owner of the telecenter, responsible for the performance of the telecenter and he enjoys the profit and takes the risk of losses. (In other models, he may be a manager or employee or franchisee of the larger organizations) Telecenter managers plays a crucial role in determining the success or failure of the telecenter. So usually the government will select the telecenter operator according to a transparent criteria and procedure. Then he was given a licence and responsibility. He conducts participatory demand survey and prepares a business plan for the telecenter.

*Telecenter Support Institutions*
Telecenter Operators selected from local entrepreneurs cannot create and run telecenters effectively and profitably without the assistance from experts who know the technical and managerial know-how and resources. Telecenter is a relatively new business model and local people do not know initially how to create and run it. Telecenter Support Institutions are organizations such as public agency, NGOs, universities and private franchisers which gives such know-how to telecenter operators. A TSI advocates for one specific telecenter business model, such as post office-base telecenters, or school-based telecenters or franchised telecenter with ICT training services, etc. They play a important role in awareness raining, capacity building and managerial support for telecenters.

*Rural Telecom Operators*
Rural Telecom Operators are telecom service provider which specialized in providing telephone and Internet services in un-served areas or un-economical rural areas. Due to scarcity of population, low income level, distance from backbone transmission lines and unfavourable geographic condition, these areas cannot attract private commercial-based service providers. Based on the government's universal access policy, government provides financial incentives (one-time subsidy) for telecom service providers who undertake to provide certain service level to such areas. This subsidy is given to the RTO which are selected by the competitive auction called "Smart Subsidy Scheme". They provide a connection to telephone and Internet to telecenters with prescribed bandwidth, price and service levels.

In the case of pilot projects, the latter three functions are not necessarily separated clearly and a telecenter manager may play all three functions as only several telecenters may not justify creating different institutions for each of the three functions. But in the case of telecenter scaling-up, it is better to separate these functions and apply separate process to select optimal players, as they

require different skills, subject to different scale-merits, and therefore different optimal size and coverage areas.

## I. Government Roles

The government plays the important role in the telecenters scaling-up. As we are basically following the private sector-led approach to ensure efficiency and financial sustainability, the government role is limited to three major aspects: G1. setting national ICT strategy, G2. Securing a political support, and, G3. Setting the rules and criteria within which the private sector will collaborate and compete.

### G1. Setting National ICT Strategy

Many of the failure of the telecenters in the past was due to the lack of supporting economic and social environment for telecenters. Telecenter is similar to the fragile flowers and demand a favourable soil, air, water and nutrition. if some necessary elements are lacking they will die. The necessary elements for the telecenters to be self-sustainable are the following: (i) Regulatory Framework, (ii) Telecom Infrastructure particularly in rural areas, (iii) ICT education in various levels, (iv) ICT Industries to support the telecenters, (v) Contents especially in local languages, and (vi) Job Creation to provide a direct benefit to the local people.

These success factors can only be developed through an comprehensive ICT development strategy supported by the highest level of the government. How to create a comprehensive National ICT strategy is not the current topic of this seminar and there are many good examples of the National ICT Strategies. UNDP has been working in this areas for a long time. The World Bank provide assistance in comprehensive ICT development strategies in Sri Lanka. UN ICT Taskforce is now developing a evaluation framework for National ICT Strategies.

One important remarks relating to the National ICT Strategy is that it should be embedded in the National Poverty Reduction and Growth Strategies. As the successful development of ICT depends macro-economic conditions, social and structural policies and related sector strategies, such as in education, health, rural development and communication infrastructure. For example, Kyrgyz Republic developed a comprehensive ICT Development Strategy in 2002. It was developed within the framework of Kyrgyz Poverty Reduction Strategy and there is a detailed summary of the ICT strategy in the PRS. OECD DAC recently surveyed how ICT strategies were incorporated in the national PRS in all the low-income developing countries.

### G2. Securing a Political Support

As the telecenter scaling –up requires a support from wide range of stakeholders, and some budgetary support, securing the political support is one of the essential tasks of the government. India is one of the most advanced ICT leaders in the developing world. Karnataka and Andhra Pradesh are the two of the most advanced states where Chief Ministers were prominent leaders in advancing ICT initiatives. But they experienced a disappointing election results recently, losing their job, due to the frustration of the majority poor people, who felt they were not included in the benefit of the ICT initiative. Here are three success factors to secure political support:

*Involve diversified players and communities*
Telecenters need a broad range of partners. Although the telecenter managers will be mostly local entrepreneurs, they need a support from NGOs who are much familiar with the social development aspects of the telecenters. Local governments, school community, universities are also important. Political support for telecenters will become much stronger, if we include all the relevant players.

*Universal Access*
Telecenters' benefits will never reach rural and remote communities, unless we work simultaneously with the Universal Access issues.

*Creating Jobs*
The biggest economic and social issue in the developing countries is the under-employment, particularly in the rural community. If the telecenters do not create jobs in this area, political support will not be strong enough to allow continuous government support. There are many types of ICT-enabled businesses. They are not necessarily a very technology oriented businesses, such as software house and hardware manufacturers. But in some case, micro-enterprises run by a village lady to distribute mobile phone services to a villagers could be more realistic way to create jobs. Telecenters themselves create many small enterprises run by local entrepreneurs, and create associated job opportunities through e-commerce and e-learning. In the E-Sri Lanka project, one of the evaluation criteria for the telecenters is how much they created jobs.

## G3. Setting Rules & Criteria

Another important government role in scaling-up telecenters is setting rules and criteria for selecting telecenter operators, rural telecom providers and telecenter support institutions. Selection criteria should be different depending upon the functions, but there are some common elements for the selection:

*Financial Sustainability*
We have learned that the most frequent reason for the telecenter failures is the lack of financial sustainability so that, when the donor or government's grant money is terminated, telecenters ceased to survive. Some telecenters created by donors, even did not designed to have revenues to from users to support their recurrent operational costs. But in the case of scaling-up, at least, we need to aim at recovering recurrent operational costs by operational revenues so that even if government /donor support is terminated, most telecenters continue to operate.

*Technical Sustainability*
Another major source of telecenter failure is the technical break down of equipments and the lack of capacity to maintain PC hardware, software and network connections. In Korea, in their first broad scale installation of telecenters, within three month time 90% of the PCs broken down and telecenters ceased to work. In the second installation program, they introduced the on-line maintenance system and more trained telecenter operators to avoid such technical problems. Credibility of the capacity building program is the essential part for the selection of the telecenter-related organizations.

*Requirements to Provide Basic Services*
Telecenters Operators, Support Institutions and Rural Telecom Providers all should be subject to the obligations to provide clearly defined basic services to their clients. The quality of the service agreement with such operators are the essential success factor for the public-private partnership initiatives. Definition of basic services should be technology independent and allow more innovations with monitoring mechanism to be identified.

*Definition of What are the Government Contributions*
Construction of telecenters in sparsely populated areas needs some governmental subsidies to provide incentives to private sector operators. Competitive auction will be used to minimise the amount of subsidy. However, subsidy tends to cause a distortionary impact and risk of abuse,

(i) For example, there should be a fair balance between cyber café owners who do not receive any government subsidy and telecenters operators near-by.
(ii) One-time subsidy may provide more discipline to the operators and prevent the risk of abuse than annual operational subsidies.
(iii) Training vouchers for villagers may increase the incentives for the telecenter managers to provide better services, although it is complex to manage such scheme.
(iv) Sometimes subsidy may take the form of low-cost connection to the broad-band. It may increase the equity of various villages whether it is located remote or near from the telecommunication backbones.

(v) The government may allow telecenters to deliver E-Government services and allow its fee revenues to be retained by the telecenters. It could be another form of incentives for the telecenters.

*Rules should be Technology Neutral*
In some countries, telecom regulation allows specific technology for certain services, and the selection process is defined technology-by-technology. In the rural communications, optimal technologies depend upon the population density, topology, income levels and type of services required. Telecom service providers will compete in offering the best mix of technologies to provide services efficiently. Therefore, rule for selection of service providers should be written in a technology neutral way to allow such competition.

*Rules should allow different business models*
Many different groups created telecenters based upon different business models. There are some fragmented evaluation studies for such different types of telecenter models, but there is no definite answer to which is the best telecenter model. Most probable answer is it depends upon the exact objectives, availability of organizational skills, social and cultural preferences, etc. Canadian CEDA piloted to create 6 different types of telecenters in Thailand and compared their financial performance:

(i) Private entrepreneur model tends to be superior in terms of financial sustainability than public sector model or NGO-based models.
(ii) School or civic organization-based telecenter also perform better: WorldLinks pilot projects in Uganda
(iii) Private Franchises may prove to be sustainable and provide various services effectively using their scale merits
(iv) Village Phone Shop model, pioneered by Grameen Telecom will be a sustainable model supported by micro-enterprises

On the other hand, NGO-based model and Community-based model may prove to be superior in their developmental impact particularly in empowering the rural poor. Public sector model, such as Post Office-based telecenters may prove to be efficient and convenient as they utilize existing building and familiarity with the customers. In conclusion, if the government choose one or two business models, we may loose the skills, and organizational capability of other organizations and stifle the innovation in business models. The telecenter scale-up rules and criteria should allow different business models, while avoiding excessive Balkanization of telecenter models by imposing common basic service standards.

*Learning from Past Experiences*
Selection criteria and processes should be informed by the lessons from past experiences.
(i) The most important lesson is that the “Bottom-Up” approach worked better than “Top-Down” approach. Whenever possible, we start with awareness raising at community levels, organizing support mechanism at community level, and participatory demand survey at early stage of the telecenter business plan preparation.
(ii) Local contents in local languages and locally relevant service availability is crucial for the success. For this to happen, first creation of community information system should be encouraged, e-government program should require all the governmental agencies to create their portal and all major private organizations and civic organizations should be encouraged to create their own portal. Also small businesses in web-hosting services and web-design services should be promoted by entrepreneur support mechanism.
(iii) Gender consideration should be incorporated to the design process of Telecenter scaling-up. Lessons shows that women managers tend to perform better than male managers. Socail constraints of the female users should be taken into consideration when telecenter program will be designd.

**II. Role of Rural Telecom Providers**

In the case of pilot telecenters, connectivity to telephone and/or Internet is usually designed individually to the telecenter. Specific VSAT or terrestrial wireless connection is created for the telecenter pilot project. However, when the government consider the telecenter scaling-up, connectivity of the Telecenters are much more efficiently handled in the context of:

R1. More systematic Universal Access Policies,
R2. Selection of telecenter locations more strategically, and,
R3. Selection of rural telecom providers to serve telecenters in a region optimally defined to maximise the economies of scale and using the "smart subsidy scheme".

**R1. Universal Access Policy**

*Objectives*
Traditionally Universal Access obligation was imposed on State Monopoly Operators. They were supposed to construct the rural telecom infrastructure through cross-subsidization from the profitable long distance and international telephone services. However, in recent years, many state operators were privatised and competition was introduced both fixed-line and mobile telecom services. It is no longer possible to impose un-economical services to the former state monopolies. We need to find alternative ways to ensure universal access to rural communities. Universal Access Fund and Smart Subsidy Scheme are one of the mechanisms to implement the universal access through market based mechanism. Now, almost 60 countries in the world is either introduced the Universal Access Fund or in preparation of its introduction, according to the OECD study.

*What is Universal Access Fund?*
Universal Access Fund is a fund created by the government to subsidize the private sector telecom operators who undertake to develop communication infrastructure in un-served areas. Communication infrastructure may include rural telecom service, Internet and broadband service and telecenters. The fund is usually funded by imposing a levy on all telecom operators certain percentage of

(i) telephone revenue or
(ii) spectrum license fee

*What is Smart Subsidy Scheme?*
Selection of the Rural Telecom Provider is conducted through a competitive auction process. The government decides certain region which is un-served or under-served by the incumbent operators, and define a service level, such as transmission capacity, number of public phones in each villages. Then conduct a transparent auction to decide the rural telecom provider who bid for providing such services with minimum amount of subsidy. In order to ensure the quality of the services, bidders should be pre-qualified with certain financial and technical criteria.

*Which countries have introduced UAF?*
Among developing countries, Universal Access Fund was first introduced in Chile in 1994 and subsequently in 4 other Latin American countries, Peru, Columbia, Guatemala and Dominican Republic. In Asia, Nepal, Sri Lanka and India has introduces. In Africa, Uganda has introduced UAF with the advice by IDRC and implementing the auction with the financial assistance from the World Bank. Uganda's UAF was used for not only to rural telecom providers but also by telecenter operators and other strategic internet users. The process to design the UFA was based on the community engagement process and well documented.[1] South Africa use the UAF only to

[1] Tusubira, F.F. 2004. Rural Communications Development - The Uganda Case. Presentation to the International Seminar on ICT Polcy Reform and Rural Infrastructure sponsored by EBRD,JICA,IDRC and Keio University, Aug.23.2004
http://www.ictseminar.org/ICTWorkshop/FAQ.asp?CategoryID=734

finance telecenters. According to OECD, Currently 60 countries have introduce or considering the introduction of UAF.[2]

*Advantages of UAF & Smart Subsidy*
UAF and Smart Subsidy scheme have many advantages in developing communication infrastructure:

(i) Auction will provide subsidies but it is usually a one-time subsidy for the initial capital cost, which is less damaging impact on financial sustainability.
(ii) Due to the competition for the minimum subsidy, total size of subsidy and, thus need for the government financing (cost efficiency)
(iii) Subsidy amount is determined by the market force rather than government discretion, which increase the transparency of the process (Transparency)
(iv) Auction is conducted in a "technology neutral" manner, so that the best mix of technologies will be adopted
(v) Small subsidy can mobilize substantial private investment for universal access. In Chile and Peru $1 of subsidy leveraged about $6 and $2 of private investment respectively.[3]

**R2. Selection of Telecenter Locations**

In the scaling-up of the telecenters, the location of the telecenters has to be selected strategically to achieve the policy goals with least cost.

*Selection Criteria*
Telecenters location should be selected to maximize the policy objectives, such as poverty reduction and job creation. To achieve such goals, poverty and social indicators such youth unemployment can be used as a major criteria. If one of the objectives of the telecenter is to increase the communication of different ethnic groups to reduce social tension, telecenters can be located in the areas of post-conflict. In addition to the objective economic and social indicators, degree of buy-in from the village community should be incorporated to the selection criteria. That will increase the level of community ownership and improve the sustainability of telcenters.

*Selection Process*
Selection process of the telecenter location should be conducted in a participatory manner so that it will serve as the community awareness raising and inclusion process.

(i) Identifying selection criteria and social and economic indicators to be used
(ii) Collecting data village-by-village
(iii) Preliminary selection based on social and economic data
(iv) Village awareness meetings should be conducted to explain the telecenter objectives and measure community support for a telecenter
(v) Report should be submitted from villages on the needs and how the community members support the telecenter establishment and maintenance.
(vi) Based on the objective and community buy-in data, selection committee will select the final location of the telecenters.

**R3. Smart Subsidy Auctions**

In parallel with the selection of telecenter locations, technical and feasibility study for the rural telecom service should be conducted.

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[2] OECD DAC Network on Poverty Reduction, "Leveraging Telecommunications Policies for Pro-Poor Growth: Universal Access Funds with Minimum-Subsidy Auctions", 21-Oct-2004, DCD/DAC/POVNET(2004)13
[3] Dymond, Andrew & Sonja Oestmann 2003. Rural Telecommunications Development. December 2003 Enabling the Information Society, ICT & Development, World Bank Group

1) Economic & Social studies of un-served areas to identify priority and net-costs for connectivity. Net cost is the total capital cost plus recurrent operational cost minus expected operational revenues from the services provided. As a rule of thumb, revenue of the telecenter can be derived roughly 2-3% of the income of the community which the telecenter will serve.
2) Identify optimal size of areas to be covered by a license for telecenter operator and rural telecom provider;
3) Combining several telecenter locations, economical and un-economical to create a balanced area for smart subsidy auction for rural telecom providers
4) Determine service level (bandwidth), locations and performance requirements for the Rural Telecom provider

*Auction Procedures*
In order to attract many international bidders, auction have to be conducted in a professional and transparent manner. The following are the standards procedures to conduct the smart subsidy auctions:

1) Request for Pre-Qualification: In order to avoid unqualified operator to bid with excessively low prices, the government will conduct pre-qualification process before the bidding. This process significantly reduce the number of bidders to truly serious and capable ones.
2) Request for Proposal document to pre-qualified parties: RFP should descrive detail procedures for filing of proposals, format and contents of proposal and information to be submitted, 'licensing criteria' must be provided under WTO Reference Paper
3) Evaluate proposals
4) Service Agreement: Service Agreement specifies Network construction milestones, and service rollout, Technical performance requirements, including services to be provided, quality of service, etc. and Penalties and remedies for failure to perform, Procedures for certifying completion of phases of project & subsidy payments, and dispute settlement provisions.
5) License

## III. Role of Telecenter Support Institutions

*Why do we need Telecenter Support Institutions?*
When the government wants to establish a telecenter, one of the challenges is to train telecenter managers and staff in the rural areas where there are no experience persons in maintaining personal computers or in accessing to Internet. Even before the selection of telecenter managers, somebody needs to raise awareness of village people on the benefits of communication so that they are involved in the initiatives from the beginning.

In the case of pilot projects, these tasks are usually conducted by foreign consultants or project implementation unit created ad-hoc for the project. But in the case of telecenter scaling-up, you need to repeat such capacity building for hundreds of villages or districts. These tasks are only be conducted by domestic institutions in a permanent basis.

In the telecenter scaling-up major players are the local entrepreneurs. Local entrepreneurs can create a business in a innovative way and manage efficiently, if the business is traditional trading or crafts. But if the business model is totally new to them, somebody need to define the business model and creating manual and toolkits to train local entrepreneurs technical and managerial assistance.

Telecenters usually cover one village or several villages to have efficiently respond to the local people's demands. But telecenter services, such as e-learning, e-health and e-commerce services can be developed more efficiently for multiple of telecenters, namely they requires some economy of scale.

Telecenter covers many areas and technical and managerial assistance also need to diversified skills and the people used to different cultures.

*Roles of Telecenter Support Institutions*
In order to meet such demands, telecenter scaling-up program needs local institutions which creates a business model, provide capacity building, technical and managerial support with diversified skill sets. We call them Telecenter Support Institutions (TSIs). The roles of the TSIs are:

**S1:** Develop a Specific Sustainable Business Model for Telecenter,
1) Develop Manuals, Toolkits for Telecenter Managers,
2) Create Pilot Telecenters

**S2:** Implement Capacity Building Program
1) Train Telecenter Facilitators
2) Facilitate Awareness Raising Meetings for Villages,
3) Train Telecenter Operators

**S3:** Assist Telecenter Operators
1) Managerial and technical support, training,
2) Providing service contents

*Selecting Telecenter Support Institutions*
Telecenter Support Institutions plays an important role in the scaling up program. Therefore, it is important to select them according to transparent criteria and process.

Selection criteria should include:
a) Organizational capability and financial probity
b) Experience in successful entrepreneurship and/or in community development
c) Regional diversity, familiarity in regional culture and languages
d) Diversity in organizational type: Private, NGOs, Civic Organizations

When a country launches a telecenter scaling up program, often there are already several different pilot telecenters exist and there is not clear consensus which model is superior. Often there is a severe arguments between a group of people who advocates for pure private entrepreneurship approach and a group advocates for the importance of community involvement and ownership. Telecenter scaling-up program can be successful if we create a constructive synergies between these two groups. Allowing different types of TSIs will solve this philosophical debate and create a coalition of different types of organizations.

In the case of E-Sri Lanka Telecenter project, ICT Agency selected TSIs through transparent process and approved 8 TSIs, which include two of the largest Sri Lankan NGOs, both have a long history of community empowerment, Sarvodaya and Sewa Lanka, Chamber of Commerce, Post Office and Private Firms which has been engaged in ICT Training and rural communications.

## S1. Developing Toolkits

FSIs' first task is to develop Toolkits and manuals for telecenter operators. Unider the coordination of the government, representatives of FSIs will form a Working Group to develop a common guidelines. In addition, they may develop toolkits and manuals specific to their business models.

Common Guidelines for all FSIs

a) Manual for Community Stakeholder Meetings and Demand Survey
b) Organizational Guidelines
c) Financial Management and Reporting Form

Manuals specific to each FSI, including

d) Business Plan Development Tool
e) Manuals for Equipments & Maintenance
f) Manuals for Telecenter Services

## S2: Implement Capacity Building Program

Once the Guidelines, toolkits and manual have developed, FSIs will start the capacity building programs. Considering the large demand for capacity building, the program will be conducted in three stages: First to train the "Facilitators" within the FSIs. Second is the community awareness raising and, Third, telecenter managers' training.

*Training the Facilitators*

Facilitators are the champions and trainers of the telecenter initiative. They organize and facilitate community awareness raising meeting and once telecenter operators are selected, they will train them in a small groups. The government will coordinate the facilitators training activities so that facilitators from different FSIs will create a team and jointly conduct a training sessions in a region.

TSIs will select several facilitators to lead the capacity building program for telecenter scaling –up. Facilitators need to communicate with villagers and potential telecenter operators on the role of the telecenters, how the community can make use of the new technologies provided by the telecenter, how to establish telecenter in their community. Facilitators will learn how to use various toolkits and manuals as the training materials.

*Village Awareness Meetings*

Objective of the Village Awareness Meetings is to raise awareness for Telecenters by village people and local entrepreneurs (potential Telecenter operators). Lessons from the past telecenter success and failures shows the utmost importance of the community involvement from the designing phase of the project so that the community can express their specific needs and opinions on the telecenters. Village awareness meetings will serve this purpose. Also this process is a road show of the telecenter program so that many local entrepreneurs become aware of the opportunity to apply for the telecenter operator's position.

For Telecenter Support Institutions, the Village Awareness Meetings are a good opportunities to better understand the needs for the telecenter in specific community and various types of members

including the poor, women, minorities. They will reflect on this to improve the telecenter business models to better reflect such diversifies demands.

Village Awareness Meetings are organized by village leaders and facilitated by facilitators

Expected outcome of the meetings are:

a) Identifying a group of village leaders who will support the telecenter initiative in the village
b) Identify specific needs of the community for the service of the telecenters with different group of community members
c) Identify a local entrepreneur who can apply for the telecenter operator

*Training the Telecenter Operators*

Next stage of the telecenter capacity building program is the training of telecenter managers.

Objectives of the training of telecenter operators are;:

a) Provide Telecenter Operators a necessary skills to establish and run the telecenter. They will learn how to organize community support groups, how to legally establish telecenters, how to create a good management team, etc.
b) Training program covers management, financial, technical and social development aspects. They learn a basic knowledge of preparing business plan for the telecenter, how to raise and administer financial accounts, how to manage staff, and how to conduct participatory demand survey, etc.

Facilitators will use the following methods for the training:

a) Using toolkits and manuals to actually create the telecenter's business plan (Action Learning)
b) Several TSIs may get together to have a joint training. For example FSIs with NGO background may teach participatory demand survey method and FSIs with business background may teach provision of services.

**S3. Management Support & Content Development**

*Management Support*

After the initial capacity building program, FSIs may agree with individual telecenters with long-term management service contracts. The service contract is a voluntary basis and may take various forms:

a) Franchise agreement: Telecenters may pay a franchise fee at certain percentage of the service revenue and receive managerial and technical support services, including some software for certain services.
b) Becoming a Subsidiary: Telecenter may accept equity investment from one of the FSIs. FSIs may acquire majority share or minority share depending upon the mutual agreement
c) Service Agreement: Telecenter have no capital relationship but just agree on the service contract where they pay certain service fees to get technical and managerial support

*Content/Service Development*

Telecenter Support Institutions will play a major role in developing contents and services for individual telecenters. Some FSIs may develop e-learning system for ICT literacy training, some may develop e-learning for job training for rural people, and some may jointly create e-commerce system can be developed by one of the FSIs to be utilised by local businesses.

Another important role of FSIs is to encourage community members to create local language, locally relevant contents. For example, community portal should be developed with input from the community members, health information system will be developed with input from villagers on traditional health care know-hows. Employment opportunities and job-seekers information can be matched by a portal site. FSIs will play a role of information aggregator for many aspects.

E-Government contents, such as down-loading all governmental agencies' forms and on-line application for various certificates, will be utilized free of charge by Telecenters to produce fee income

Other service contents, identified by demand survey by majority of Telecenters should be developed by Telecenter Support Institutions.

**IV. Telecenter Operators**

*Role of Telecenter Operators (TOs)*

a) Manage Telecenter as financially sustainable manner:
Telecenter manager is responsible for the financial performance of the telecenter. In the entrepreneurship model, he/she is directly gain from the profit and suffer from the loss of the telecenter. In this way, he/she has the highest incentive for the better financial management and the best to respond t the clients' needs.

b) Maintain certain service standard for Telecenter customers:
Telecenter Operator is responsible for providing a minimum service standards which is agreed with the government. That may include providing reasonable level of access to low income people.

c) Authority and obligation to delivery of certain e-government services:
Telecenter Operator has a privilege and obligation to deliver e-government services specified by the government.

*Who should be the Telecenter Operator?*

a) Organizational capability and financial probity
Telecenter's success is crucially depends on the leadership and enthusiasm of the telecenter Operator. He/she must be a good organizational capability to create networks of the community members. At the same time, he/she must be a good manager of the business, especially financial probity is the important requirement for the Operator.

b) Experience in successful entrepreneurship and/or in community development:
TO should have either a good business truck record or deep experience in community development or both.

c) Allowing different types of organizational forms:
Heterogeneity of the TOs will also create the strength of the telecenter system. The selection criteria should be mindful of allowing the diversity of the organizational background of the TOs to include private, non-profit and civic organizations.

d) But priority is to encourage private local entrepreneurs:
However, private entrepreneurs should play the central role in the management of telecenters. This is good for the financial sustainability, creation of business opportunities to the rural areas.

e) Familiarity with regional culture and consciousness:
Selection criteria should include some regional and cultural balance. Telecenter is an important component of information infrastructure, which should be open and fair to the various religious and cultural groups. This will strengthen the political support for telecenters.

**T1. Selection of Telecenter Operators**

Selection process of the Telecenter Operator will be as follows:

a) Raise awareness through village awareness meetings

This component has been discussed already in the section S2-2. Telecenter Support Institutions.

b) Seek proposals from potential operators:

After the Village Awareness Meeting, the government will select the telecenter locations, according to R2. Then for each telecenter location, the government will issue a Request for Proposal (RFP) for telecenters. The same Operator may apply for multiple locations.

c) Short listing by desk screening :

The government will screen the Proposal by checking whether the proposal is consistent with the criteria and whether applicant has a necessary capability and experience.

d) Visit sites and interview applicants

Selection committee member should visit the site and interview the applicant. This is actually the most important part of the selection process. He/she will check whether the site is conveniently located, whether applicant has a necessary personal attractiveness and integrity to run the telecenter, and ask for the applicants' vision and personal commitment to the telecenter..

e) Select operators for each Districts:

Then the selection committee will decide the final selection of telecenter operator for the location.

**T2. Participatory Demand Survey**

*Objectives:*

a) Identify demand for Telecenter services bottom-up:

Participatory demand survey is the core of the demand-driven bottom-up approach to create telecenters. The survey need to identify different grops in the target community, such as gender groups, youth and aged people, the poor, farmers, ethnic minoritie, etc.

b) Create buy-in by village communities:

Objectives of the demand survey is understand the real needs of the different groups, how they are more easily come to the telecenters?, what are their constraints?

c) Define village contribution to Telecenter

This survey also identify how the various community groups become the active contributors for the telecenter activities and contents. They can be represented in the telecenter advisory board. They can volunteer to provide service or contents to the telecenter.

*Method:*

In each District, Telecenter Operator and community leaders organize meetings. Meetings may be separate meetings with different groups, such as farmers, SMEs, schools, women, youth, the poor, minorities, etc. Facilitators from Telecenter Support Institutions may provide advice on the organization of the survey.

*Outcome:*

Detailed demand survey identifying the needs for various telecenter services, segmentation of target customers, how the services will be delivered, how to market each customer segments.

**T3. Telecenter Business Plan**

After a participatory Demand Survey, telecenter operators will finalize the business plan for the telecenter.

*Objectives of the telecenter business plan:*

a) Define services provided by Telecenter and estimate demand for each services

Telecenters will deliver a basic communication services, such as public telephone, Internet and emails. Then, gradually they prepare additional services, such as copying, desk-top publishing, ICT literacy training, e-learning, e-government, e-commerce, e-health, etc. The services, target clients and how to market the service should be identified based on the participatory demand survey.

b) Estimate revenue and costs to create financial sustainable plan

Based on the services to be provided, business plan should identify the capital cost and recurrent cost to provide such services. Also they elaborate on the pricing of such services to recover such cost.

c) Define human resources

Business plan should identify the role and specific name of the Board members, and management team, and employees to ensure operational sustainability

d) Define monitoring and evaluation plan

Business plan will identify the monitoring and evaluation process, indicators to be used, and benchmarks.

*Process:*

a) Telecenter manager to develop a business plan

b) Telecenter Support Instutions to provide adequate support for the manager

c) Use a template and pro-forma financial model developed as a toolkit

*Approval:*

If a government subsidy is involved, the Government Agency will check whether the financial and operational sustainability and minimum service level is secured in the business plan and, then, approve a grant to the Telecenter