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FOR INFORMATION

Question 10/2:   Communications for rural and remote areas

STUDY GROUP 2

SOURCE: TELECOMMUNICATION DEVELOPMENT BUREAU

TITLE: REPORT ON THE REGIONAL SEMINAR FOR CENTRAL EUROPEAN
                 COUNTRIES (BUDAPEST, 7-9 DECEMBER 1998)

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Abstract:

The report contains various experiences encountered by the participants with the implementation of telecentres. It also contains "The Budapest 10 Commandments" for telecentre managers (page 9).

The role of Community Telecentres in fostering
Universal Access and Rural Development

1   Introduction

The seminar was organised by ITU in partnership with UNESCO, CTSC International and the Telecottage Association of Hungary and was hosted by the Communication Authority of Hungary. The seminar was the first of a series of regional seminars organised to meet the growing demand for information about the role of Multipurpose Community Telecentres (MCTs) in promoting universal access and integrated rural development.

The objectives of these seminars were:

- To raise awareness amongst decision and policy makers about the potential of MCTs to promote economic and social development in rural and remote areas and "best practice" policies for promotion and replication of the MCT models.

- To disseminate results of preliminary evaluations of pilot projects and provide participants with the information they need to develop business plans and options for financial strategies.

- To bring together nationals involved in MCT pilot projects partners to share information, experiences and best practices, with a view to stimulating the creation of telecentre network(s) adapted to the needs of rural people.

The programme for the seminar is shown in Annex 1 and the list of participants in Annex 2.

1.1   The Case of Hungary – The Setting for the Seminar

Hungary provided the ideal setting for a seminar addressing MCTs in Eastern Europe, as it is the most advanced country within Eastern Europe with regard to MCTs. The first MCT in Hungary opened in 1994, and in 1998 there were 53 in operation. In December 1997, a symposium on MCTs in Hungary was held, a National Telecottage Program was announced, and a plan to establish 100 more MCTs in Hungary was made. The Hungarian Telecottage Association is also prepared to help neighbouring countries to implement MCTs and build similar associations.

The National Telecottage Programme has received funding 0.4 mill USD from the Government. International funding has been received from USAID and the Soros foundation.

However, the telecottages are established as local community initiatives and do not consider themselves as part of the public authorities.

Their objective is to reduce migration from rural areas through the provision of access to information and telecommunications, job training and career counselling, etc. for the local population. The services provide by the MCTs are:

- Information dissemination

- Education

- Office and business services

- Communication services

- Consulting

- Community services

- Social care

An interesting aspect is that many of these services not are directly related to Information & Communications Technologies (ICTs). Education and training in computer skills are provided in most centres, but training in other subjects is also provided. Consulting has included agricultural extension services and help to marketing and export of local food products. Some centres also provide legal advisory services and organise local transport (e.g. car pooling) and bus services.

Thus the Hungarian model has extended the range of services provided from IT-related services typically provided by a MCT to new areas, which are of major importance for local communities but with little relation to IT.

Another interesting aspect is that the Hungarian Post Offices has also begun to extend their range of services to include some of the typical telecentre services. Thus Hungary hosts both an active grass-root based telecottage movement and a more centralised initiative building on a similar concept. Time will show which of these two initiatives will be the most successful in the long term.

1.2   Field Trip

Seminar participants made a study visit to the Hungarian Telecottage Association's office in Csákberény, where they were informed about the activities and set up of the Association and had the opportunity to speak to a number of managers of Hungarian telecottages. The Hungarian Telecottage Association was established in 1994 and has more than 200 members.

The fieldtrip also included a visit to the local MCT nearby. The MCT in Csákberény was the second MCT in Hungary (established in 1994) and is the oldest MCT still in operation. The telecottage offers a broad range of services, e.g. tele-training and tele-work. Local inhabitants established the telecottage at Csákberény as a community centre in order to give people access to information, support and training via electronic communication means. It is managed by the honorary president of the Hungarian Telecottage Association and director of the national telecottage programme **Mátyás Gáspár**, who also was the initiator of this program. The telecottage initiative started as a private initiative. However, the telecottage initiative gained support from the Ministry of Welfare and other concerned government agencies. The USAID has also supported the establishment of some 30 MCTs.

It is planned to implement a pilot on a local area broadband network and use the MCT in Csákberény as a reference MCT, where experiences are made available for use in other IT-based rural development programmes.

2   Major Seminar Results and Contributions to the Multipurpose Community Telecentre Knowledge Base

2.1   The Concept of MCT

The seminar demonstrated a wide spectrum of experiences in setting up MCTs in many different types of environment (rural – urban, high income – low income, areas with or without adequate telecom infrastructures).

Telebased community centres are established as multipurpose centres combining activities related to public services with more business oriented activities. This is in contrast to e.g. telecommuting centres and call centres, which have been set up to serve a single commercial oriented purpose.

Multipurpose Community TeleService Centres may serve a number of different objectives and offer many different types of services and facilities. In Western Europe where numerous telebased facilities are open to the public, it is particular important to distinguish **community** centres from other types of telecentres using IT and telecom facilities. The most important feature of a **community** telecentre is that it in some way or another is supporting local community activities.

The significant difference between a multipurpose community centre and the Public Call Offices (PCOs), tele-kiosks and small "telecentres" is the "Multipurpose" aspect. MCTs, by definition, offer more than just basic communication services and, in particular, *public* services, e.g. tele-education, tele-healthcare and "government/community-on line". The concept of MCT is more or less equivalent to the concept of a telecottage. MCTs can improve public access to a wide range of services in addition to basic telecommunication. Moreover MCTs can contribute to cultural and economic coherence of local communities.

Morten Falch noted that although many centres are organised in national organisations such as the British Telework, Telecottage and Telecentre Association or receive support from national or international programmes, there are also MCTs outside these institutional frameworks, either generating their own income or solely depending on funding from local authorities. This complicates an estimation of the overall number of MCTs. National estimates can be found for some countries at the European Telework Online website - http://www.eto.org.uk.

2.2   MCTs and Access to Information

Access to information and telecommunication services is essential for development of rural areas but is still inadequate or non-existent in many countries. The minimum annual revenue/line required by the operator to be profitable in many low income countries is more than the average annual GNP/capita! Therefore, universal service in rural areas remains difficult in the absence of strongly supportive policies to increase penetration. This is true also in most of the Central and Eastern European (CEE) countries, where the GDP/capita is much higher than in most developing countries.

Consequently, in low income countries, the goal of *universal service* i.e., a telephone line to each household, appears to be unrealistic in the foreseeable future.

Kerry McNamara stressed that access to communication is essential for the development of rural areas and rural communities are often prepared to spend a larger portion of their income on communications. Access to communication by the poorest is central to the World Bank policy and the bank support policies, which promote communication in rural areas, and will under certain circumstances finance rural communications infrastructure.

Demand for telecom services, even among people with very low annual incomes, is evidenced by the phenomenal growth of small telecentres, which are now mushrooming in many countries. However, this growth has usually not resulted from government policy and strategies to improve universal access.

Men and women do not have equal access to technology. Two thirds of the world's illiterates are women, girls access to primary education is in many regions still limited by traditional perceptions of value. **Kate Wild** emphasised the importance of targeting women for training and to target women-owned companies in licensing and procurement. **Endel Erwin** stated, that in Estonia MCTs can improve gender equality and provide possibilities for housewives to telework. **Anne Ståhl**

Moussa provided an example of this. Her MCT in Gotland has mobilised bilingual housewives to offer translation services.

Boyan Radoykov informed that UNESCO has initiated a programme (INFOYOUTH) promoting young people's access to information.

2.3 Models for Generation of Income

A key issue for all types of telecentres including MCTs is funding. It was stressed several times during the seminar that is important to have an economically sustainable strategy right from the beginning. The experiences from Suriname presented by **Darío Goussal** indicate that low income can be a barrier towards establishment of an economic viable telecentre. But low income areas should not be discarded. MCT should start from an impact-driven bottom-up model recognising the need for economic sustainability and scaling of investments. **Johan Ernberg** noted that preliminary studies of the financial viability of MCTs in rural areas in low income countries indicate that they could be attractive business cases, even as a "stand alone" business (Uganda), or in small numbers (12 MCTs in Indian case), at least for local entrepreneurs, but this remains to be proven.

Telecom access and services is a major expense for MCTs. It is therefore important that a fair arrangement is made with the telecom operator. **Endel Ervin** mentioned high prices paid for Internet services as a major problem for MCTs in Estonia. And also **Mátyás Gáspár** stressed the importance of telecom tariffs for the viability of MCTs. A solution maybe to let MCTs invest in their own backbone network. **Nagarajan Ravi** informed that WorldTel (see below) will do so in countries where incumbent operator rates are very high.

Mike Jensen made in his presentation a distinction based on the source of funding: demand driven telecentres and special programmes to support new MCTs. Although this distinction was made for African telecenters it became clear during the seminar that this distinction is also important in other regions.

In Africa the demand driven centres mainly focus on provision of basic communication services such as telephone, fax and sometimes also email and Internet. In Senegal such centres are established as private franchises initiated by the Public Telephone Operator (PTO). In Ghana the telecentres are established on the initiative of private entrepreneurs. Although their primary service is related to telecommunication they may also offer other business services like photocopying. So far this type of centres are mainly located in urban neighbourhoods, where a large population of customers, without residential access to basic telecom services, exist.

Telecentre programmes, have usually been implemented with (time-limited) financial support from government and, in some cases, from international development agencies, such as ITU, UNESCO, USAID, and IDRC. A number of presentations discussed various initiatives taken by international development agencies in order to establish MCTs and other types of telecentres. These organisations have supported establishment of MCTs in a number of developing countries, such as Benin, Mali, Tanzania, Uganda and Suriname. International support to MCTs is also given to countries in East Europe. Business Communication Centres (BCCs) have been established through support from the European Union programme for Technical Assistance to the Commonwealth of Independent States (TACIS). 11 BCCs have been established in Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Moldova, Russian Federation, Ukraine, and Uzbekistan, and more BCCs are under establishment. As mentioned above, Hungary has received donation from the Soros Foundation and USAID to their national telecottage programme.

Nagarajan Ravi gave an example on how a Bank can contribute to the growth of telecentres on a purely commercial basis. WorldTel is a private limited company established on the initiative of ITU. WorldTel has developed a commercially viable model for rapid penetration of the Internet in emerging markets through the establishment of community Internet centres. WorldTel plans to establish Community Internet Centres in Indian towns and in other regions as well.

Other countries have created their own special programmes funded by domestic sources. South Africa, for example, has created a universal service fund that will provide support to the establishment of a network of more than 2,000 telecentres throughout the country. This activity will be funded by the national telecom operator.

Public support to MCTs is also common in industrialised countries. Typically, the establishment of MCTs in rural areas has been initiated through some sort of public funding - sometimes supplemented with grants from the national telecom operator. Public funding is usually given for a limited period of time. Either because they are given as part of a programme with a limited lifecycle or because the intention is to finance the start-up costs for a centre which should be economically viable in the long run. Many countries have developed national programmes supporting MCTs and, at the international level, the EU has initiated a number of supporting programmes for both the EU and Eastern European countries, as mentioned above.

It is however difficult to make a sharp distinction between demand driven MCTs with a commercial orientation and MCTs set up as part of a special programme. Most centres have a commercial orientation and have been created as the result of a local initiative, but they have also received some type of financial support. In addition many MCTs generate a substantial part of their income through provision of services to the public or participation in public funded projects.

The general experience has been that rural community telecentres, which are independent and not integrated in a larger organisation, have found it very difficult to survive when the public funding is withdrawn. Sooner or later they have to generate their own funds in some way or another. One important exception to this is Western Australia, where telecentres can receive some public support on an ongoing basis.

The possibilities for funding are related to the services provided and the objectives to be met. Many centres have focused on creation of local coherence by creating a meeting place for economic or cultural activities, and many services have been provided free of charge. These type of centres have been found to be the most eligible for public funding, but they have on the other hand found it very difficult to redirect their activities in a way that can generate a sufficient income.

2.4   Activities of MCTs

In general two types of telecentres can be distinguished. Centres concentrating on business activities supporting local enterprises or operating as an enterprise by itself, and centres directing their activities to the public in form of education, training facilities, social and cultural activities and access to other public services. However, many telecentres, e.g. the Multipurpose Community Telecentre pilot projects, supported by ITU and its partners, aim at offering both public and private services.

Bill Murray presented a categorisation of Telecentre models, which was developed following a survey of British MCTs made by the UK Telecottage Association TCA. This categorisation concentrates on business related activities and includes:

- Call Centres

- Internet Service Facility

- Virtual Tele-agencies

- Dedicated Teleworking Centre

- Multi-purpose Telecentre

- IT Service Centre & Help Desk

The survey shows that MCTs are not used primarily as a workplace for a large number of people. The most important services provided are computer training, access to computers and photocopying. Although this model is developed in a British context it is also applicable for other countries. However, access to basic telecommunication facilities should be added as a service in many other countries. Provision of telecom services is probably the most important service in developing countries without an adequate telecommunications infrastructure, and it is certainly the most important source of income in these countries.

Another service, which has been widely discussed but only implemented in a minor scale, is telemedicine. Recognition of telemedicine as a technique for health-care delivery in the developed countries has, according to **Leonid Androuchko** been accelerated by the decline in costs of telecommunications and computing. There is still very little evidence that telemedicine is cost effective. But in developing countries facing problems in provision of medical service and health care, and having lack of expertise and shortage of doctors, telemedicine can enable expertise to be accessed from underserved locations using telecommunications.

Loy Van Crowder argued that MCTs should not be seen as just information technology centres. They can also facilitate local sharing of information and help create common, local development visions. Telecentres are not only facilities for access to external information services, but are also facilities for organising virtual village-to-village meetings and tele-training events.

To be effective, telecentres need to be integrated into communities in ways that they lessen instead of widen the communication gaps between the information rich and the information poor. One of the greatest risks in telecentre development is that the technology will remain "alien" to the local community and they will feel little involvement or ownership of the telecentre. This of course limits effectiveness and sustainability of the initiative.

This is in compliance with the above mentioned experiences from Hungary and also the experiences from Western Australia further described below.

2.5   Organisation: The Importance of Leadership

Paddy Moindrot underlined that every MCT must have at least one enthusiast who will work for love - and occasionally for money. This view was supported by others with practical experience in setting up a MCT. **Gail Short** found that to be highly qualified in IT was not necessarily a prerequisite skill for telecentre operators. Successful telecentres tended to have co-ordinators with good skills in community work and business creation as well as being competent in using the basic technology needed in the centres.

In Estonia schoolchildren and retired people have been shown to provide a healthy combination for a successful telecottage. The children have the energy and computer skills, while the elderly have the experience.

Anne Ståhl Mousa added that it is important to build on sound business principles right from the beginning, in order to survive the first years enthusiasm. It necessary to have a well defined product, a market and clear targets on how to proceed today and in the longer term.

Publicity is also very important. **Mátyás Gáspár** suggested that the novelty of the first telecottages can be used to raise public awareness at conferences and in TV, on the radio and in the press. The most suitable way to support establishment of new telecottages is to raise awareness of the possible grants and funding possibilities.

2.6   Regional Experiences

The different models for telecentres were illustrated by a number of insightful presentations of local and regional experiences from Sweden (Gotland), Wales, UK, Suriname, Vietnam, South Africa, Estonia, Hungary, Suriname and Western Australia.

In addition to Hungary, the example from **Western Australia,** presented by **Gail Short,** was particular illuminating. Western Australia hosts one of the most successful telecentre programmes.

Western Australia provides a very interesting example of a viable model on how MCTs with limited financial support can give an important contribution to community development. Western Australia is a very sparsely populated area and the distances are enormous. Fifty-one centres have been established and are supported by WA Telecentre Network. Eight hundred people participate in the operation of the network. The centres can receive financial support not only for the initial investment but also for their ongoing operations. Up to 20,000AUD per year for salary assistance can be provided.

The MCTs have given substantial impetus to cultural and economic life in remote areas.

Education opportunities is one of the most important benefits. This includes computer training as well as distance learning in a wide range of subjects. The telecentres also provide opportunities for gaining work experience locally. For example a six month programme has been developed for the unemployed. More than 40 people gain work experience and learn new skills by working at a telecentre for 12-15 hours a week.

The telecentres engage in many activities, which do not always have a direct relationship to ICTs. Fifty percent of the telecentres produce a local newspaper for their hometown and one of the telecentres has even established a bakery. This has been economically feasible because the centre attracts people and because sharing of facilities lower the costs.

2.7   Workshop

The third day of the conference was devoted to a workshop facilitated by Johan Ernberg, Guy Girardet and Lars Engvall.

The purpose of the workshop was to enable participants to exchange experiences from various countries in Eastern Europe as well as other regions and to discuss the processes involved in setting up telecentres and formulating proposals for pilot projects. The workshop covered the following issues:

- identifying needs, choosing services and applications;

- identifying local and national partners;

- identifying and selecting a region;

- choosing terminal equipment for a telecentre;

- assessing socio-economic benefits;

- preparation of a business plan.

2.8   The Budapest 10 Commandments:

A very practical outcome of the seminar was the formulation of 10 commandments for telecentre managers. These "rules of thumb" were inspired by Kerry McNamara's presentation. The original list was slightly modified/expanded at an ad-hoc working group of telecentre practitioners.

1. Be realistic about objectives and impact.

2. One model does not fit all. Fit your model to your objectives and use existing infrastructures.

3. Think about sustainability from the beginning.

4. The role of the telecentre manager is crucial. Plan for their successor(s).

5. Learn from and support each other.

6. Beware of geeks bearing gifts. Technology is just a tool

7. Assess, adapt, assimilate.

8. When it comes to marketing your services, size matters. Start big, or join a network.

9. Education, Education, Education

    -        raise awareness in the community;

    -        stimulate the interest of clients and sponsors

    -        train and re-train users and workers.

10. Consumers can be producers too (and vice versa).

Be lucky! Miracles can happen but don't plan on them.

2.9   Dissemination of Seminar Results and Next Steps

The seminar programme was announced on the Web well in advance and also papers were made available on the Web before the seminar. In addition a web-cast of the seminar was made. A press conference was arranged for the last day of the seminar.

Participants were very enthusiastic about the concept of MCTs and many of them expressed the need for help by international organisations or consultants to start up MCT programmes in their own countries.

It was decided to create an electronic forum for continuing exchange of experiences and ideas. Such a discussion forum was created by BDT shortly after the seminar and all seminar participants have been invited to contribute to this forum.

Furthermore, it was decided to explore the possibility of creating an international MCT association, as a sort of federation of national associations. Such an organisation should help mobilising of partners and funding, and act as a clearinghouse for information and experiences.

3   Highlights of the Seminar Speakers

3.1   Regional and National Studies:

Hungary:

Elek Straub: The Role of Multipurpose Community Telecentres in Fostering Universal Access and Rural Development

Telecottages will become part of the economy, due to their market value, as they are capable of delivering the most varied services and products into areas where they otherwise would have been impossible or very difficult to obtain:

Telecottages as business mediators:

- They are in direct contact with the customers and are responsive to their needs.

- Telecottages are able to distribute information very quickly by use of their own network.

- The public infrastructure provided by the telecottages offers new possibilities for the co-operation of business, civil and public interests.

Telecottages appeared in Hungary as a result of the movement created through a civil initiative taken by a handful of enthusiasts. The Hungarian Federation of Tele-cottages has initiated close to 100 telecottages, which function today or are about to open in the near future.

The Hungarian telecom operator MÁTÁV has from the beginning supported the movement in various ways. Support has been given to the organisation of regional and national telecottage conferences. MÁTÁV will enter an agreement of co-operation in promotion of the National Telecottage program. The agreement will include a preferential telecottage tariff package and other telecom solutions, expansion of wide band communications, initiation of a pilot broadband network using the telecottage at Csákberény as a reference, provision of material support and participation in research and development activities.

Hungary:

Mátyás Gáspár: Some Tips for   the Creation of National Telecottage Programmes – The Hungarian Experience

A national NGO is needed from the very beginning to present the telecottage as a new solution and represent the interests of the telecottages. A non-profit making organisation can supply services for

the development and operation of the telecottage network, manage the national telecottage programme and its subprogrammes, set-up and operate network services, and search for new possibilities.

Publicity is also very important. The novelty of the first telecottages can be used to raise public awareness at conferences and in TV, radio and the press.

Telecottage training can help future managers of telecottages. It also helps to transmit "the original spirit of telecottages".

It is important to secure continuous exchange of information among the telecottages.

A national telecottage programme can be an important benefit to the development within a country. It is also necessary to prove that other national development programmes, (e.g. for rural areas) can use the telecottages.

The most suitable way to support the establishment of new telecottages is to raise awareness of possible grants and funding possibilities. It is important and necessary to rely on more than one financial resource. The biggest telecom and IT businesses are willing to support development of telecottages. There are also a number of international development programs like PHARE, World Bank, USAID and Soros Foundation, which all have provided financial support to telecottages.

Estonia:

Endel Ervin, **Estonia: Multipurpose Community Telecentres and Virtual Rural Municipalities as Development Catalysts**

The first telecottage in Estonia was founded in 1993 by the Rapla County village movement. In 1995, the Estonian Association of Rural Telecottages was formed by the all-Estonian village movement KOKUDANT (The Homeplace). The association was established as a non-profit, non-governmental organisation for co-operation between organisers and supporters of rural telecottages.There are more than 50 rural based telecottages.

The Estonian telecottage movement has not received any foreign donor support, but close contacts have been established to telecottage movements in Sweden and Finland. The Estonian Association of Rural Telecottages intends to seek support from both the EU and the Nordic programmes.

The most active users are schoolchildren and students. Farmers and entrepreneurs are beginning to use the telecottages, but many farmers are still unaware of the services provided. Schoolchildren and retired people have been shown to provide a healthy combination for a successful telecottage. The children have the energy and computer skills, while the elderly have the experience.

Tourist information has been one of the most popular services provided.

The Estonian Association of Telecottages is preparing a pilot project on virtual municipalities, where villagers can get access to governmental services from the telecottage or from home. It is also planned to provide information on how to create community development groups. In 1998, Palade Telecottage in co-operation with other telecottages plan to start a project concerning the use of telecottages as resource centres for the promotion of gender equality as a cornerstone of democratic development. The position is that telecottages can improve gender equality and provide possibilities for housewives to telework.

A major problem has been the high price paid for Internet services and the poor quality of the telecommunications network. Another has been lack of PC's with sufficient capacity to run modern software.

The Estonian Association of Rural Telecottages lists the following services as services that telecottages may provide:

- Distance education

- Virtual market place

- Networking

- Regional development planning

- Community building

- Information concerning local events

- Connecting local inhabitants with services and markets

- Exchanging information with local government and politicians

- Connecting villagers with consultants

- Supporting and connecting small businesses

- Telework and flexiwork

- Printing of advertisements, manuals, village news, etc.

- E-mail

- Help to PC owners

The Estonian telecottage movement has raised awareness of the development of rural economies and social life and has seen telecottages as a means to strengthen rural communities. It has been important that a national organisation, the Estonian Association of Rural Telecottages, has been formed in order to support local initiatives.

Africa:

Mike Jensen: African Telecentres as Model for Rural Telecoms Development

Africa is the region where an upgrade of telecom facilities is most urgently needed. 33 of the world's 48 least developed countries are in Africa, and most Africans have never made a phone call. This is due to a very low penetration of phones – only one line per 2000 inhabitants in Sub-Saharan Africa. There is only one Internet user per 9,000 inhabitants. Telecentres can dramatically improve the access to telecom facilities.

Two different models of African telecentres exist: a) Demand driven expansion of services at existing public telephone shops, and b) centres set-up through special programmes to support new multi-purpose telecentres.

Centres of the first type can be found in Senegal and in Ghana. In Senegal 6,000 public telephone shops are run by local entrepreneurs licensed by the PTO. The centres are offered a 40% discount on tariffs. Many of these provide other services such as fax, word processing and even Internet. In Ghana a joint venture between the Post Office and a commercial Internet Service provider offers free email accounts. More than 30,000 have signed up for this service. Revenue is gained from a charge per email.

The second type of centres may be established with or without the involvement of an international agency. UNESCO/IDRC/ITU have set up telecentre pilots in Benin, Mali, Mozambique, Tanzania and Uganda. FAO, UNCTAD and WHO will now join this initiative. In South Africa a Universal Service Agency has been created in order to roll out more than 2,000 telecentres on a franchise basis. In Tunisia the national Internet agency is about to announce a national tender for 100 telecentres.

It becomes still less costly to establish a telecentre. A basic Windows compatible NetPC now costs less than US$500 and a network computer about US$200. Expensive software is not necessary for most applications. South African SchoolNets are using entirely public domain software for email and mail servers. Eight countries in Africa provide local tariffs for Internet access from anywhere in the country (Burkina Faso, Gabon, Malawi, Niger, Chad, Tunisia and Zimbabwe). Some countries consider flat rate tariffs for Internet access.

Gail Short: The Socio-economic Impact of Telecentres in Rural and Remote Australia

Western Australia provides a very interesting example of a viable model for telecentres, which with limited financial support can give an important contribution to community development. Western Australia is probably the least populated area in a high-income country. Although it is the largest state in Australia, it has only a population of 1.7 mill., with two thirds living around the capital. More than half of the rest live in regional centres. Some 200 communities spread over a vast area service the rest of the population. It is in these communities that the WA Telecentre network directs its services.

The network today comprises 51 operational centres with an additional eight having recently received funding. A further 61 communities have indicated their desire to join the network. In total, it is planned to establish 100 telecentres. The centres are located in towns of 200-600 persons and usually at least 50 km from each other.

Telecentres can receive public funding from the State Department of Commerce and Trade.

New centres can receive funding for equipment including telephone connection costs up to AU$30,000 . Existing centres can be supported with up to AU$20,000 per year for salary assistance.

It is necessary to have some support from Local Government or the community to become eligible for support. For instance, it is expected that the telecentre building is provided rent free/maintenance free by the community. Additional funds for specific projects can be applied for if the projects can demonstrate regional development or employment opportunities flowing from the proposed initiative.

Although the centres may receive state funds they are community owned and managed. It is also important that they generate their own income. The most common sources of income are

- Membership fees

- Telebased training or fee-paying courses e.g. in IT skills

- Secretarial services

- Hire of services and equipment

- Fee from establishing agencies

- Internet access and email-services

- Reception services, phone-answering and email receipt for SME's

- Provision of professional rooms

- Labour market programs

One of the most profitable services has been the provision of e-mail services to back-packers, who wants to send or receive email.

In their evaluation of the Australian telecentres, the ABARE evaluation group found that to be highly qualified in IT was not necessarily a prerequisite skill for telecentre operators. Successful telecentres tended to have co-ordinators with good skills in community work and business creation as well as being competent in using the basic technology needed in the centres.

Suriname:

Darío Goussal: Rural Telecentres: Impact-Driven Design and Bottom-up Feasibility Criteria

Impact evaluation of MCTs should include following indicators

a) Social characteristics of the area or the society such as demographic and economic indicators.

b) Overall quality of life measured by health, education, per capita income etc.

c) Availability and access to social services

d) Social justice (distribution of income, gender and ethnic groups)

Real change of indicators will probably only take place after 4-5 years. A formal mathematical model building on a broad spectrum of indicators is suggested.

Preliminary findings indicate that the lower income group is prepared to spend more than 3% of their income on communication (world average is 1.5%). Still low income is a barrier towards establishment of an economic viable telecentre. This was the case in Suriname where two MCTs have been evaluated.

But low-income areas should not be discarded. MCT should start from an impact-driven bottom-up model by recognising the need for economic sustainability and scaling of investments. A low cost telecentre is suggested for low-income areas. Such a centre will only have the most basic equipment and all communication is made either with a two-way paging system in a closed network or a rural email system in an open network. Such a telecentre can be established with a total investment of US$2,400 and can break even with a revenue of US$1,688 per year.

UK:

Bill Murray: The Global Marketplace for SME's and Teleworkers

There were just over 100 million "online" users at the end of 1997: USA & Canada - 64 m,

Europe - 19.75 m, Asia/Pacific - 14 m, South America - 1.25 m, Africa - 1 m

This figure has doubled in the last year. Continued growth is expected due to emergence of low cost PCs, but hampered by the lack of growth in generally available bandwidth. It is anticipated that the Internet will become a mass market medium by the year 2000.

Electronic trade has grown from a level below USD 600 million to USD 9 billion in 1997. Eighty-five per cent of that is accounted for by business-to-business transactions. Fourteen million people in America used the Internet for planning or booking travel arrangements – representing a five times increase on 1997.

There is a substantial gap between Europe and US. Eighty-four per cent of the £19 billion worth of Web commerce in 1998 is from the US, 9% from Europe and by 2002 the total will be £255 billion, (with 63% from the US and only 13% from Europe). Of the 27 million people, who have bought off the Net, only 19% were Europeans. E-commerce was first established in the US because of very cheap local call rates. In Europe it is much more expensive. Surfing on the Web for six hours would cost three times more in Sweden than in Canada and six times more in Austria.

Ministers from the European Free Trade Association, Central & Eastern Europe & Cyprus issued a Declaration in Bonn (July 1997). The declaration called upon European businesses, consumers & governments – "to work together to answer challenges of Global Information Networks, and maximise opportunities for creation of new jobs, exploitation of new forms of employment (such as teleworking), maintenance of social standards, and greater economic integration and social cohesion."

An important issue is to avoid a division between information 'haves' and 'have nots' in Europe and globally. A particular potential "have not" in this scenario is the large number of small and medium sized enterprises (SMEs) which exist throughout Europe. On the one hand small companies may find themselves without the financial and technological means by which to take part in the new global trading environment. On the other hand electronic commerce gives the potential for small businesses to compete with the biggest, both nationally and internationally.

The 1998 Survey of UK Telecottages & Telecentres shows that telecottages are not used primarily as a "regular workplace" for large numbers of people. Only 3 of the 50 Centres that responded to the survey said that more than 10 people (other than staff) used the Centre as a regular place of work, whilst over two thirds of the Centres had no users of this type. However, the picture is quite different with regard to "drop-in" type users. Whilst 7 Centres had no occasional or regular/frequent "drop-in" type users the vast majority did have a large number of both regular and occasional users of this type – with over 20% of centres claiming in excess of 50 of both types of users. The average number per Centre came to around 30 frequent users and additional 30 occasional users.

The most important services provided are computer training, access to computers and photocopying

Wales:

Paddy Moindrot: What is a Telecottage

Wales has a high concentration of telecottages with at least 45 telecottages are located in Wales. Wales has its own telecottages association established in 1992. For the last three years it has concentrated on marketing of Welsh teleworkers on the Internet. This activity has now been handed over to the Welsh Development Association for commercial development.

The telecottages are located in many different types of locations such as schools, village halls, tourist information points or former chapels, banks or coal board offices. Operation and ownership is local. Owners include community groups, private individuals and local authorities.

They provide services such as photocopying, fax services, Internet access, word processing, database work, spreadsheets and accounts, desktop publishing and training. Services are charged either by the hour or by the item. Different rates are charged for charitable groups, local individuals and businesses.

It is cheap to set up a telecottage. It can be done for less than £2,000, though £5,000 would be better. The equipment needed is a photocopier, a fax, a printer, two telephone lines, furniture and as many multimedia PC's as possible. There is no direct funding for telecottages, but money can be raised from different sources such as building renovation grants, training grants etc.

It is a must to have one enthusiast who will work for love and occasionally for money, to set up the telecottage.

Gotland (Sweden):

Anne Ståhl Mousa: Building a Community TeleService Centre for the Future - Creating a network and entering the market

Telecentres can offer job opportunities for farmers' wifes. In Sweden most farmers' wives have a professional background, but live in the countryside and find it difficult to engage in a professional career once the kids have flown the nest. The telecentres at Gotland have, through a networkof translators and people with personal contacts within the Baltic region, created new job opportunities. A handful of translators were introduced to a teleworkers network, a broker was added and a complete translation agency was created - with the Hanseatic market as the chosen target.

TeleMart/TradeZonenetwork provided a bridge between suppliers and the market. The start of the local MCT gave the teleworkers access to technical competence, equipment and an address in the city.

In order to survive beyond the initial years of funding and enthusiasm, it is necessary to build on solid business principles – define the product, the market and set clear targets on how to proceed today and in the longer term.

Johan Ernberg: Universal Access for Rural Development from Action to Strategies: Prospects for rural telecommunications development

Most of the populations of developing countries live in rural and often isolated areas. Access to information and telecommunications is essential for development of such areas, but is still inadequate or non-existent in many developing countries. Two major reasons for this are the perceived lack of profitability of rural telecommunications and the lack of appropriate policies and strategies to provide Universal Access.

The minimum annual revenue/line required by the operator to be profitably is US$ 330-400, assuming the capital cost of US$ 1,000 per line. This is more than the average annual GNP/capita in many low-income countries! Moreover, in most developing countries the capital cost per line is significantly higher than that whilst the average annual income of people in rural areas is even less than the national average. Therefore, in the absence of strongly supporting policies, the chances of increasing penetration in rural areas remains difficult. This is true even in most of the Central and Eastern European (CEE) countries, where the GDP/capita is much higher than in many developing countries.

That there is a demand for telecom services, even among people with very low annual incomes, is evidenced by the phenomenal growth of small tele-shops, tele-kiosks or "telecentres" - which are now mushrooming in many developing countries. However, the growth of such public call offices (PCOs), run by private entrepreneurs, has usually not resulted from government policy and strategies to improve universal access. Rather, it has been brought about on the initiative of shopkeepers and local entrepreneurs who have "discovered" that there is a market for such services (and who sometimes started their operations illegally). Smart governments learn from action and develop policies and strategies which further promotes the development of these means of improving access.

Recent studies indicate that such telecentres (PCOs) are commercially attractive both for the franchisee and the telecom operator and that they generate a considerable number of jobs (at least in densely populated areas). In Senegal there is now more than 6,000 small "telecentres", operated by private franchisees, and in the Indian state of Punjab there were 10'200 franchised "Teleports" (essentially a phone shops).

Preliminary studies of the financial viability of MCTs in rural areas in low income countries indicate that they could be attractive business cases, even as a "stand alone" business (Uganda), or in small numbers (12 MCTs in Indian case), at least for local entrepreneurs, but this remains to be proven. The importance of *community ownership* (meaning that the MCT is run by a co-operative or entrepreneurs from the community) has been stressed.

Nagarajan Ravi, WorldTel

WorldTel is a private limited company incorporated in the UK and established on the initiative of ITU. WorldTel has developed an economically viable model for rapid penetration of the Internet on emerging markets through the establishment of community Internet centres. WorldTel Community Internet Centre is a modular cluster of hardware, software and services available at strategic locations like schools, colleges, shopping areas, hospitals, post offices, railway/busstations, co-operatives etc.

The services offered are Internet access, email, voice-mail, phone, fax, photocopying, textprocessing and applications like utility bill payment, travel booking, forms/notification printing etc. Training will also be provided.

The centres will support a wide range of different areas such as basic needs, government services, education and business.

The concept is being developed in Asia and Latin America and expects to have at least 2000 centres in operation by the year 2000. Centres will either be established on a franchise basis or owned directly be WorldTel.

Each centre will cost $15,000-25,000 depending on the configuration. Revenues for the entire project will come from revenues from the community centres owned by WorldTel, franchise fees, from franchised centres, lease rental for dedicated access to businesses and revenues from Internet commerce and advertising. The majority of the centres will be able to generate an acceptable rate of return. Revenues coming from dedicated access and Internet commerce will finance investment in a backbone network, where incumbent operators' rates are very high.

Kerry Stephen McNamara: Information & Communication Technologies and Rural Development: Challenges for Development Agencies

The opportunities created by new information communication technologies are of particular importance to rural areas, where the majority of the world's poor live. There is however a gap in the access to telecommunication facilities between urban and rural areas. Due to this gap, there is a risk of further inequality and isolation of rural areas as access to telecommunication facilities become still more important. Therefore, there is a need for a multi-dimensional partnership strategy to harness new technologies to service a sustainable rural development.

ICTs enable partnerships between development agencies and mutual learning to a degree never imagined before. At the same time, there is a danger that ICT will reinforce some traditional negative habits of development agencies. Development agencies have to do business in new ways using partnerships, transparency and information sharing, and learning from the clients.

ICTs enables the creation of a knowledge bank where people can learn from each other and share new knowledge. ICTs are also used to improve dialogue and knowledge-sharing with clients, e.g. through creation of a development forum. Knowledge-sharing between client is also improved through the indigenous knowledge initiative.

The World Bank is still in the early process of developing an integrated strategy on ICTs, rural access and rural development. There are two angles of such an approach: rural focus on telecom facility projects, and integration of ICT issues and tool into the rural development work.

Rural access to telecommunications is a growing focus of the efforts of the World Bank. Today there are rural telecommunications projects in more than 15 countries. These projects are made in a context of sector reforms based on liberalisation and private participation. The main focus is on provision of advice, financing of policy and regulatory studies on rural strategies and some pilot schemes.

Access to communication is essential for the development of rural areas and rural communities are often prepared to spend a larger portion of their income on communications. Access to communication by the poorest is central to the World Bank policy and the bank support policies, which promote communication in rural areas, and will under certain circumstances finance rural communication infrastructure.

Finally Mcnamara formulated his ten commandments of Telecentres, which was later modified by a working group during the conference.

Loy Van Crowder FAO: Knowledge and Information for Food Security

Information, education and training allow farmers to make use of new farming knowledge and technologies. Research shows that both formal education and non-formal training have a substantial effect on agricultural productivity. ICTs are powerful tools for informing people and providing them with the knowledge and skills they need to put agricultural science and production inputs to best use. The planned use of ICTs also help people exchange experiences, find common ground for decisions and actively participate in and guide development activities.

Little attention has been paid to an ICT conceptual framework or guidelines for ICT utilisation. It is a risk that attempts to introduce ICTs will ignore lessons from past technology transfer efforts. ICTs do not in themselves guarantee benefits to local people. In our enthusiasm for ICT technologies and

their potential, we should not forget that the focus should be on people, organisations and processes rather than on the technologies themselves. ICTs will not fulfil their potential for rural development unless the special characteristics of the technologies are combined with approaches which focus on participatory communication and training methodologies.

Telecentres should not be seen as just information technology centres. They can also facilitate local sharing of information and help create common, local development visions. Telecentres are not only facilities for access to external information services, but are also facilities for organising virtual village-to-village meetings and tele-training events.

Telecentre facilities should be introduced as part of an integrated effort to support community development. Telecentre pilot projects should focus on the adaptation of applications and content to the local context so that they are relevant to a particular area of development activity (e.g., medicine, education, agriculture). The agricultural and rural development applications of telecentres for improved food security should support activities such as:

- networking of government agencies, educational institutions, input suppliers, product buyers etc.

- marketing information networks linking local market systems with provincial, national and global systems;

- agricultural distance learning and tele-training programmes; and

- specialised information networks for weather, environmental protection, disease and pest monitoring, famine and early warning systems.

The Communication for Development Group in FAO has been actively involved in the last few years in the field of electronic information and communication systems, particularly with regards to their applications in support of research, extension, education/training. The objective is to foster improved communication among rural communities (farmers and rural dwellers) and the various organisations that address their development needs and recognises that rural people can benefit from networks that enable information to flow to and from rural communities.

To be effective, telecentres need to be integrated into communities in ways that they lessen instead of widen the communication gaps between the information rich and the information poor. In this context, it is important to pay attention to the communication gaps that often exists based on gender, and incorporate into telecentre organisation the differential communication patterns that often exist between men and women.

Through dialogue and consultation, communication can ensure information flows among concerned groups and promote local information networks; it can l integrate indigenous and scientific knowledge; and it can empower local people to take control of their own development processes.

A good understanding of local communication patterns and processes is essential to ensure appropriate applications of technologies and content to the local situation and for harmonisation/integration with existing communication channels and processes. This includes cultural and social norms, where and how people communicate, what is communicated, and by whom.

One of the greatest risks in telecentre development is that the technology will remain "alien" to the local community and they will feel little involvement or ownership of the telecentre. This of course limits effectiveness and sustainability of the initiative. The local community must be engaged in all stages of the project and the skills of local people to take responsibility for the organisation, maintenance and operation of the telecentre must be developed.

Dr Boyan Radoykov : UNESCO INFOYOUTH Programme

UNESCO initiated the INFOYOUTH Network in 1991. The aims of INFOYOUTH are: to spread of information on, and for, youth e.g. via the Internet; to improve understanding of the problems and expectations of young people; and to facilitate projects andnational and international policy programmes for young people. Moreover, the Network also train young trainers and leaders in computer skills The issue of equality of access to training is an important priority (as is gender related access to training, access for underprivileged urban and rural youth etc.).

INFOYOUTH aims to create national info-structures (and mobile such, in rural areas) on issues of particular interest for youth (health, drugs, new religious movements, violence etc.) connected to the INFOYOUTH Network, and to establish community telecentres specifically oriented to youth communication needs and expectations.

UNESCO has been active in the MCT area since 1996 when it initiated a special effort to help its Member States to benefit from the challenges and opportunities of telematics and information highways, not only by understanding and connecting to them, but also by adopting, adapting and exploiting telematics applications for development, and by resolving ethical, social and legal concerns such as cultural diversity and appropriateness of content, universal access, intellectual property, and respect for individual rights. UNESCO's first major activity has been support for the establishment of pilot MCTs in Africa.

Information and education are major factors in empowering communities to understand the role of population in family, community and national development, to take advantage of appropriate services and options, and to impact upon strategies and policies at the local and national levels.

A fundamental criterion for a community telecentre project is the co-operation of a wide range of organisations: the private sector, NGOs, the public but also local authorities. Information and education on population can be developed as a principal focus of an MCT. Other MCT services, for example, those designed to promote agricultural production, rural employment or literacy, can also directly or indirectly implement population and development goals in these sectors. Key actors and target groups for population and development efforts, such as, for example, local government and women's and youth organisations, can contribute in the planning and development of the MCT, ensuring that these questions are central to its governance, objectives and implementation strategies.

Leonid Androuchko: How can developing countries benefit from Telemedicine

Telemedicine is not a new concept. The telephone line was used from the very beginning for different kinds of medical consultations. The emergence of telemedicine as a recognised technique for health-care delivery in the developed countries has been accelerated by the decline in costs of telecommunications and computing- However, there is still very little evidence that telemedicine is cost effective.

For developing countries facing problems in provision of medical service and health care, and having lack of expertise and shortage of doctors, telemedicine can enable expertise to be accessed from underserved locations using telecommunications.

Telecommunication Development Bureau of ITU has started implementation of several small telemedicine projects. On the request from the countries themselves missions have been made to Bhutan, Cameroon, Georgia, Mongolia, Mozambique, Tanzania, Thailand, Uganda, Ukraine, Uzbekistan and Vietnam.

The telecom operator seems to be the right actor to play a leading role in stimulation and promotion of telemedicine projects.

Kate Wild: Access to ICTs: a gender perspective

Men and women do not have equal access to technology. Two thirds of the world's illiterates are women; girls access to primary education is in many regions still limited by traditional perceptions of value. According to a US survey only 17% of the computer science student are women. Internet users are mainly males (86% in Ethiopia, 83% in Senegal and 64% in Senegal)

A gender task force has been established as a result of a resolution adopted at the World Telecommunications Development Conference held in Valletta, Malta in March 1998 adopted a resolution which addressed issues of *gender* and telecommunications policy in developing countries. The purpose is to begin a process of integrating a *gender* perspective in the work of its programmes. The *Task Force* will serve as the main organ for effecting the mainstreaming of *gender* issues and in collaboration with the Development Sector aim to ensure that the benefits of telecommunications and the emerging information society are made available to all women and men in developing countries on a fair and equitable basis. Other initiatives related ICT gender issues are taken by UNCSTD Gender Working Group and International Federation of Institutes for advanced Studies, which has prepared a study on the use of ICT by African Women.

It is important to target women for training and to target women-owned companies in licensing and procurement. Many telecentres are owned or operated by women. More half of the 50-60 communication centres recently established in Ghana are owned by women and in South Africa half of the telecentre managers trained are women.

Morten Falch: Models for Multi-Purpose Community Information Centres (MPCICs)

A survey on the number of tele-based information centres can never be complete. Many centres are organised in national organisations such as the UK Telework, Telecottage and Telecentre Association (The TCA – see http://www.tca.prg.uk)or receive support from national or international programmes. But there are also centres outside these institutional frameworks, either generating their own income or solely depending on funding from local authorities. National estimates can be found for some countries at the European Commission supported European Telework Online website – http://www.eto.org.uk.

United Kingdom: 160 telecottages throughout the country and the number is still growing. One of the reasons for the large number of telecottages in UK is the good opportunities for public funding.

Germany has a strong organisation of community teleservice centres. 47 centres have been established with public support. Centres are established in East Germany to compensate for poor telecom services.

France: Less than 10 telecentres are in operation, but some of these are very large telecentres.

Sweden established its first telecentres in 1985. The number has been quite stable within the past years, and Sweden has now around 25 telecentres. These centres are networked so they can serve the local community with services from other local centres in Sweden. No public funding is available for these centres and they operate on a strictly commercial basis.

Denmark was one of the first countries to establish telecottages in 1985. Many of these centres are now closed, but related activities are now taking place as part of other programs, e.g. as training centres established as part of local employment programs.

Finland hosts 40 telecentres throughout the country. As a large country with a small population and with a very well developed telecommunications infrastructure, Finland has a large potential for use of telecommunication for support of local communities.

Norway joined the first waive of telecentres taking place in Scandinavia in the 80's, but it seems that all the centres established have been closed down.

Ireland: There are about 10 telecottages. In addition to the telecottages defined as community centres providing public access to computers and other IT equipment, Ireland hosts a large number of call centres.

Austria: at least 12 centres are in operation in 1997. Two of these are located in Vienna. Internet-access, tele-bank services, access to databases, telework facilities and teletraining are provided.

Belgium: only one telecentre has become operational so far. It is planned to set up around twenty telecentres in Flandern within the next few years.

In **Spain** about six telecentres have been established. More rural telecentres are planned in Teruel and Aragon regions.

Italy: Two rural based centres are in operation. A plan for 57 new centres has been announced.

Estonia: 32 centres have been established and the number is growing rapidly

Hungary: The number of tele centres is growing rapidly. So far about 50 centres have been established.

Eastern Europe: EU has funded a number of telecentres in Eastern Europe, e.g. through the Tacis programme, which has funded 11 centres in 9 different countries.

USA: The Community Technology Centre Network (CTCNet) connects about 260 centres. Other initiatives are made by e.g. the U.S. Department of Education. Microsoft is funding a number of initiatives at libraries.

Canada: North America's first rural telecentres were set up in New Foundland and Labrador in 1989-90. Six centres were established, five of these are still running.

Australia: A telecentre programme was initiated in 1992/93. The total number of sites is now 70 including satellite sites providing services from other telecentres.

South Africa: National Information Technology Forum has identified 201 community information centres. Of these 88% had telephones, 65% computers and 30% e-mails.

Senegal: More than 6,000 telecentres in Dakar and suburbs were running in 1996. These centres were mainly supplying basic telecom facilities.

Ghana: 50-60 communication centres have been set-up in the wake of the liberalisation of the telesector. Most of these companies are set up by women.

ANNEX 1

Seminar Programme

Budapest, 7 - 9 December 1998

The role of Multipurpose Community Telecentres
in fostering Universal Access and Rural Development

Monday 7 December	Day 1 - Planning of MCT Pilot projects	
	08h00	Registration of Participants
	10h00 – 11h00	Opening Ceremony
		Kálmán Katona, Minister of Transport, Communication and Water Management, Hungary
		Gyula Sallai, Executive Vice President, Communication Authority, Hungary
		Gyõzõ Kovács, Hungarian Telecottage Association, Hungary
		Johan Ernberg, Counsellor, ITU/BDT
		Elek Straub, Chairman and CEO of MATÁV
		Lars Engvall, President, CTSC International
	11h00	Coffee Break
	11h15 -12h30	Session 1 - Panel on Integrated Rural Development: Woldwide Activities of UN and other Agencies
		Johan Ernberg, Counsellor, ITU
		Kerry Mcnamara, Senior Knowledge Management Specialist
		Boyan Radoykov, Programme Specialist,
		InfoYouth Network, UNESCO
		Panel Discussion
	12h30	Lunch
	14h30-15h30	Session 2 - Panel on Rural Development - experiences in Eastern and Central Europe
		Mátyás Gáspár, Hungarian Telecottage Association, Hungary
		Endel Ervin, Vice Chairman, Telecottages Association, Estonia
		Kate Wild, IDRC, South Africa
		Panel Discussion

(7 December - cont.)	15h30	Break
	16h00 -17h30	Session 3 - Panel on socio-economic impact of Telecentres
		Darío Goussal, Rural Telecommunications Research Group, Northeastern University, Argentina
		Gail Short, Team Leader, WA Telecentre Support Unit, Department of Commerce and Trade, Perth, Western Australia
		Paddy Moindrot, Development Officer, Telecottages Wales
		Panel discussion
	19h00	Welcome Party for all Participants
Tuesday 8 December	Day 2 - Applications	
	09h00 - 10h30	Session 4 - Panel on telecommunications for Rural development
		Loy Van Crowder, Senior Officer, Communication for Development, FAO
		N. Ravi, WorldTel
		Mike Jensen, Independent Consultant, South Africa
		Panel discussion
	10h30	Break
	11h00 -12h30	Session 5 - Panel on Applications - (continued)
		Anne Mousa, Market Analyst, Sweden
		Bill Murray, Managing Director, Small World
		Connections, United Kingdom
		Morten Falch, Associate Professor, Center for
		Tele-Information, Technical University of Denmark
		Telemedecine
		Panel discussion
	12h30	Lunch

(8 December - cont.)	14h00 -15h30	Session 6 - Overview of Hungarian Telecentres
		Video: Our Telecottage – Rural Progress Toward Information Society
		Discussion and questions with Mátyás Gáspár, Hungarian Telecottage
		Association and representative from Hungarian Post Company
		Vietnamese Telecottages presented by Lars Engvall, CTSC & Pham Dao
	15h30	Break
	16h00 -17h30	Session 7 – Co-operation with European Commission and other Agencies
		Johan Ernberg, Counsellor, ITU
		Kerry Mcnamara, Senior Knowledge Management Specialist
		Bill Murray, Managing Director, Small World Connections, United Kingdom
Wednesday, 9 December	Day 3 – Workshop	
	09h00 - 10h30	Workshop
		Facilitators: Johan Ernberg, ITU
		Guy Girardet, ITU
		Lars Engvall, CTSC
		The workshop will enable participants to understand the process involved in setting up Telecentres and formulating proposals for pilot projects. It will cover: • identifying needs, choosing services and applications • identifying local and national partners • identifying and selecting a region • choosing terminal equipment for Telecentre • assessing socio-economic benefits • preparation of business plan
	10h30	Break
	11h00 - 12h30	Workshop

(9 December - cont.)	12h30	Lunch + Press Conference
	14h00 - 15h30	Workshop Presentation of Workshop working group results
		Comments by Specialist Panels
	15h30	Break
	16h00 - 17h30	Workshop
		Conclusions
		Recommendations for further action
	17h00	Closing

ANNEX 2

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