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The Timbuktu Multipurpose Community Telecentre

1. General

The Timbuktu multipurpose community telecentre (MCT)—with the exact title: "Planning and implementation of an MCT at Timbuktu: integration in rural areas of public services in the following fields: education, libraries, culture, health, agriculture, fisheries, SMEs, crafts and the role of women in society"—is one of a series of projects jointly implemented by UNESCO, the International Telecommunication Union (ITU) and the International Development Research Centre (IDRC) in the context of the Buenos Aires initiative. The aim of the MCT is to stimulate rural development by facilitating access to new information and communication technologies (ICTs). The project was originally scheduled for a three-year period between December 1997 and August 2001, but did not get off the ground until August 1998, with six months' delay.

The MCT is coordinated at local level by a local steering committee, comprising representatives of professional organisations (craftspeople, rural radio stations, the health sector, education, libraries, etc.) and at national level by a national steering committee, consisting of representatives from the various ministries involved in the project.

2. Aim/objectives of the MCT

The principal objective of the project is to involve the Timbuktu community and national participants in the process of development of an accessible, reproducible and viable MCT model providing ICT tools to the community with a view to promoting rural development. The model has to be accessible in terms of its cost, reproducible in that the Timbuktu experience can be transferred to other communities, and viable in economic terms, i.e. financially autonomous and self-financing.

The specific objectives of the MCT project are to test:

- means of ensuring that the MCT can be sustained by the community upon conclusion of the three-year project phase;
- strategies to establish (identify) needs and collect information;
- strategies of skilling the rural population in the use of ICTs;
- training programmes on the use of ICTs.

3. What are the strategies developed by the MCT?

The three main strategies implemented by the MCT are as follows:

- identification at local level of a core user group (30 persons appointed by the professional organisations themselves), introduced to and familiarised with the facilities offered by the MCT which they may use free of charge and thereby act as the multipliers of the centre within the community.
- set-up of thirteen application teams whose members are appointed by the professional organisations themselves by identification of specific fields and concrete application projects in liaison with the multipliers.
- development of application-oriented projects by means of demand analysis, feasibility studies, financial modalities and practical implementation.

4.   What services are offered by the MCT?

Following a study to identify the information and communication requirements of the community of Timbuktu, the MCT has now developed the following services:

- public telecommunication services (public telephone, fax, email, videoconferences, net meeting, voice mail and web-based research);
- access of presenters from rural radio stations to training infrastructures, know-how and information as well as any other information they may require (public domain, NGOs, commercial databases, maternal and infant health, etc.)
- equipment and know-how in the field of the production of information, databases and publications reflecting local knowledge and skills;
- training in the use of ICTs, in particular with a view to improving tourist and commercial activities;
- education and training to match the needs of the communities (distance learning, technology-assisted training);
- telemedicine;
- rental of offices and conference rooms, provision of translation services and commercial support;
- home page-based marketing;
- production of a journal entitled ANNOURA ("Truth emanates from light") as an information tool for rural radio stations;
- organisation of so-called "radio-surf" broadcasts.

5.   Who are the beneficiaries of the MCT?

The principal beneficiary of the MCT is the community of Timbuktu as a whole, in particular the administrative district of Timbuktu itself, as well as other districts within the region, despite the problems of the considerable distances involved. Other principal potential beneficiaries include:

- libraries (in the context of "Operation Popular Reading", an initiative to open public libraries in each of Mali's 46 administrative districts), the famous Ahmed Baba documentation and research centre (CEDRAB), school libraries);
- educational institutions (Mahamane Alassane Haïdara grammar school, public and private primary and secondary schools, the medersa Koran schools, kindergartens);
- the Timbuktu museum and culture in general;
- the health sector (regional hospitals);
- the arts and crafts sector;
- tourism;
- rural development (crop farming, livestock, fisheries) with rural radio stations acting as the key interface;
- gender equality and youth promotion.

6.   What activities are developed by the MCT?

The MCT project extends over a total period of three years and is divided into several phases, each comprising its own specific fields of activity.

Phase I: 6 months
*   planning, acquisition and set-up of the telecommunication infrastructure, the MCT building and furnishings, strategy definition and establishment of initial capacities;
*   creation of an innovative community of key users and definition of a clear vision of what information production and the communication process really means in the context of the community of Timbuktu;
*   development of strategies designed to bridge local information and learning gaps.

Phase II: 24 months
Development and set-up of local applications based on the strategies defined in the course of phase I, with specific regard to the needs of the community.

Phase III: 6 months
Preparation of the expansion and the profitable use of the MCT throughout the community of Timbuktu by forging new partnerships at local, national and international levels.

Phase IV : 6 months
*   establishment of a national and international partnership;
*   project evaluation.

7.   What is the basic infrastructure of the MCT?

The telecentre is equipped with 20 computers (half of which are second hand), all featuring a broadband 64-kbp Internet link running via a VSAT (Very Small Aperture Terminal) antenna to which routers and servers are connected, installed in a hermetically sealed room and thereby protected from the dust and the heat.
Other equipment, e.g. a photocopier, scanners, printers, a fax, public telephone booths, a digital camera, portable radio equipment and a tool kit, are used on a daily basis in accordance with users' needs.
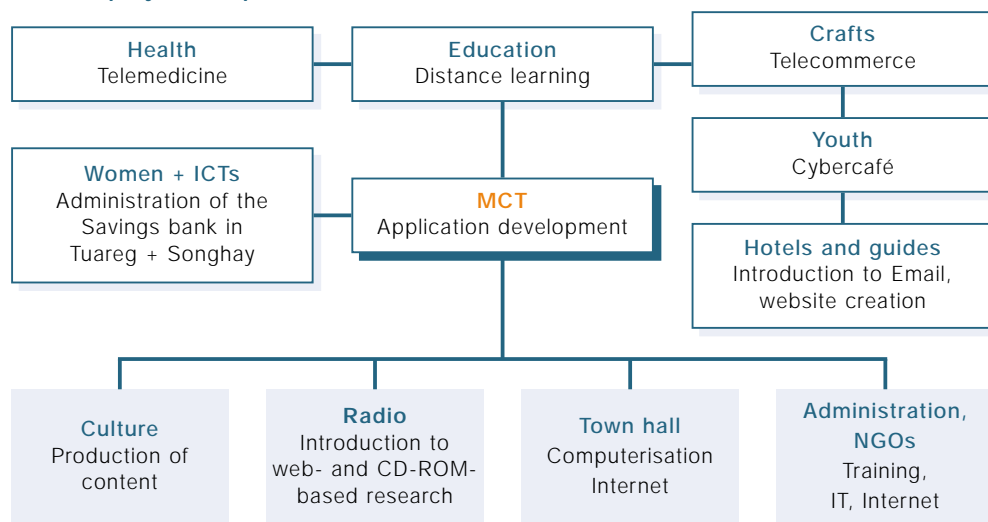
8.   Who are we?

Over and above the local and national steering committees supporting project roll-out, the MCT has five members of staff, all recruited locally by the local steering committee: an IT expert, a training manager, a marketing expert, an accountant and a maintenance engineer. A national coordinator who is a trained economist has also been recruited on the basis of a three-year contract to coordinate overall project implementation.

9. What applications are developed by the MCT?

Some ten different applications were identified by the telecentre's partners in an initial survey among an initial sample of 100 persons, which showed a real demand for information and communication. 80% of the sample surveyed on their interest in local radio programmes commented that Timbuktu radio stations only broadcast music. When asked the same question in mid-February 2001, only 5% of the same sample criticised the quality of radio programming.

The ten projects implemented are shown in the table below.

Health Telemedicine	**Education** Distance learning	**Crafts** Telecommerce

Youth Cybercafé

Women + ICTs Administration of the Savings bank in Tuareg + Songhay

MCT Application development

Hotels and guides Introduction to Email, website creation

| **Culture** Production of content | **Radio** Introduction to web- and CD-ROM-based research | **Town hall** Computerisation Internet | **Administration, NGOs** Training, IT, Internet |

9.1. Women and ICTs

This application uses the KEYMAN software programme to adapt the keyboard for Songhay and Tuareg users. The women involved in the administration of savings and credit banking are trained in Word and Excel and learn to apply their new skills in the workplace. An example of a cash transaction statement in Songhay is shown below.

ENTREES (Hirawdiyo)				SORTIES (Fattadiyo)			
N° ordre (liimoro)	Date (han)	Libellés (dalildi)	Montant (haydi kul)	N° ordre (liimoro)	Date (han)	Libellés (dalildi)	Montant (haydi kul)
Montant Total des entrées (hirawdiyo kul hay)				Montant Total des sorties (fattadiyo kul hay)			

Solde de caisse (haydi k'a cindi keesu kuna)	

9.2. Radio and Introduction to the Internet

The telecentre draws on rural radio stations as an interface to reach the nomadic population of the desert. The main activity of this application is the skilling of radio presenters in the use of CD-ROMs and web-based research. The presenters come to the telecentre to retrieve information which is then copied unto a diskette; they can also prepare their programmes with the help of the second hand computers which the telecentre has donated to each radio station.

Moreover the use of portable radio equipment means that specialists from a number of fields such as health, decentralisation, elections, the environment, etc. can be invited to the telecentre to surf on the Internet and present live broadcasts: this is known as "radio-surfing." These broadcasts are very popular among thousands of listeners, such as the nomads and farmers of the Sahara and the Niger Bend region.

10.   Conclusion

The Multipurpose Community Telecentre of Timbuktu has become a national and sub-regional flagship for the development of ICTs in a rural context. On the basis of this pilot project, Mali is now in the process of designing a nationwide project to establish connectivity in all the country's 703 municipalities. The above-mentioned applications are being developed by application teams comprising members of the various professional organisations, an approach which serves to build and foster confidence between the users of the telecentre and the its ICT tools. To quote the Imam of Timbuktu, "in the past, the people of Timbuktu had to emigrate in the search for knowledge, but now with Internet connectivity we have the knowledge here ourselves!"

Translated from the French by Stephen Conn