Developing Community ICT Centers for Social and Economic Empowerment of Indigenous Peoples

EXECUTIVE SUMMARY

1. Introduction

ICTs are a proven and effective tool to promote social and human development in many Indigenous communities and remote regions. ICTs are a means of communication with members of the community that have left in search of a better life in the cities or even in other countries. For some Indigenous people, these technologies are a way to promote their culture in other places, to access information about events in other parts of the world or in their own country, to start educational processes, and to promote the protection of their rights, their way of life and their environment.

One way to bring ICTs into Indigenous communities is to develop *digital community centers,* or ICT access centers, in local school facilities. This module explains the main factors that should be considered in implementing such centers. It emphasizes the need to create an enabling environment for sustainability through public policy, careful planning, creation of local content and – most importantly – through direct involvement of the Indigenous people being served.

This is critical, because despite the clear ICT benefits that digital community centers in schools offer to Indigenous communities, in many cases these centers have been abandoned or underused by the community. The simple installation of community centers does not ensure their success. So it is useful to ask what conditions have to be in place for these centers to become an essential step in the development of the community, instead of passing into disuse. This module fully explores the requirements for sustainable connectivity programs that respond to the needs of Indigenous communities and advance their rights, welfare and quality of life.

2. Who Are the "Indigenous" Peoples?

According to *Convention 169* of the International Labor Organization (ILO), Indigenous peoples are the heirs of the original peoples in an area. They "descend from populations that inhabited a geographical region at

the time of the conquest or colonization, or during the establishment of current state borders and that, whatever their legal status, preserve all their social, economic, cultural and political institutions, or part of them." This section of the toolkit explores the unique nature of Indigenous peoples and their ICT needs.

There are Indigenous people living on every inhabited continent. In fact, there are more than 320 million Indigenous people – some 5 per cent of the world's population. However, Indigenous peoples account for 75 per cent of the world's population living in conditions of great poverty. Conflicts over land and natural resources, discrimination and exclusion, human rights violations and the extinction of traditional cultures are all evident from Greenland to the Americas, in Africa and in Southeast Asia -- and they greatly affect Indigenous peoples.

Economic, political and social marginalization is not the only situation shared by Indigenous peoples. These groups are also heirs to ancestral cultural wealth and guardians of their land. They are knowledgeable and responsible for the preservation of life on that land. They often share communal ways of living, in which each member of the community plays a role. Their social organization commonly features reciprocal relationships among all members, encompassing even the natural environment.

Against this backdrop, technology represents many positive possibilities. The Internet, radio and television are some of the opportunities that Indigenous peoples now often enjoy. These new media have been employed as instruments to denounce violence and abuse, to support cohesion, and to strengthen and promote the appreciation of their cultures. Therefore, the involvement of original peoples in the Information Society is embedded in their use and adoption of ICTs. There are clear signs that the "digital divide" can turn into a "digital opportunity."

2.1 Indigenous Peoples' Globally Recognized Rights

Many agreements and international resolutions promote sustainable development and seek the participation of traditional peoples in the "Information Society." Most of these documents include goals and objectives for implementing Indigenous rights, including the rights to communicate and to obtain and share information. These international instruments include the following:

- *Convention 169 Concerning Indigenous and Tribal Peoples in Independent Countries*, of the International Labor Organization (ILO) was signed in 1989. It was the first document that

acknowledged Indigenous rights. It guarantees the members of these populations the equal enjoyment of rights and opportunities that national legislation gives other members of the population, in order to protect their social and cultural identity, their customs and traditions, and their institutions.

- *The Declaration on the Rights of Indigenous Peoples* is the main document on Indigenous rights. Signed by the General Assembly of the United Nations in 2007, it acknowledges that all peoples contribute to the diversity and richness of civilizations and cultures, which constitute the common heritage of humankind.

- *The World Summit on the Information Society (WSIS)* took place in two phases between 2003 and 2005, as a joint effort of the United Nations and ITU. With regard to Indigenous peoples, the WSIS set targets that sought to connect all villages to the Internet and to establish community access points. Additionally, it drew attention to the fact that these targets have to respect the cultural heritage of each community.

- *The Economic and Social Council (ECOSOC) Resolution 46/2006* stressed the right of Indigenous peoples to new ICTs. It sought to ensure greater integration between traditional peoples and their cultures in the Information Society.

- *The United Nations Millennium Declaration* set 2015 as the deadline for achieving most of its Millennium Development Goals (MDGs). Goal 1 is to eradicate extreme poverty and hunger, Goal 2 is to achieve universal primary education and eradication of illiteracy, and the eighth goal is to develop a global partnership for development. The need for ICT connectivity in Indigenous populations is reaffirmed by these three goals.

- *The United Nations Permanent Forum on Indigenous Issues* underlines recommendations on the dissemination of information on Indigenous issues. It also promotes new ways to publicize the Forum to Indigenous communities and organizations through radio programs, publications and other relevant cultural and educational media.

- *The UNESCO Recommendation on the Promotion and the Use of Multilingualism and Universal Access in Cyberspace* (2003) recommended that member states promote and support the construction of capacities for the production of Indigenous content on the Internet.

- *ITU Resolutions 46 Rev and 68 (Hyderabad 2010) on Indigenous Peoples* drew attention to the Global Initiative on Indigenous Peoples and recognized the problems that affect them worldwide, incorporating measures to promote sustainable and accessible universal access to ICTs.

2.2 Indigenous Peoples' Relationship to ICTs

ICTs represent something of a contradiction for many Indigenous peoples. On the one hand, the indiscriminant dissemination of ICT media, such as television and radio, have altered the values and customs of these peoples by introducing hegemonic cultures into their communities. But these media also can introduce content oriented toward Indigenous peoples, tangibly contributing to the conservation of their cultural heritage.

New technologies can become important allies in the economic and social development of these peoples. Experience has shown that Internet access centers run by schools or community associations promote local-interest content, disseminating the values and the worldviews of the local people. In this way, they become mechanisms of ethnic expression and education, decreasing technological "apartheid" and alienation.

The adoption of current technology is still recent and considered innovative. While many Indigenous people remain unaware of the existence of telecommunications and computing tools, some have already embraced the possibilities these technologies present. Among young people, for example, ICTs are undoubtedly a magnet. In fact, young people consider them a necessity.

Among older generations, however, attitudes are different. Interaction with technology often generates resistance and the fear of losing culture and tradition. The task, then, is to find a balance that allows ICTs to function within the scope of the development objectives that the Indigenous communities *themselves* have identified.

3. Creating An Enabling Environment for ICTs in Indigenous Communities

Often, connectivity projects destined for Indigenous communities involve long, painstaking preparation, yet major investments often are made in facilities that may be abandoned within a few months. Other projects get

off the ground using government support and yet never become self-sustaining. Still others become successful projects in small locales but never succeed in extending their reach over wider areas, wasting their full potential.

The goal is to build sustainability using a firm foundation at the very beginning of each project. That way, the goals of each community can be achieved through incremental development along the way.

In order to create an enabling environment for ICT development, the following factors must be addressed:

- Regulation -- to provide a legal framework for the proper functioning of the project.

- Technology -- to provide favorable development of appropriate technology in remote areas, so that the technological tools best fit the needs and characteristics of the community.

- Industry -- to provide an economic environment that allows for the development of upstream services and industries in remote areas that offer affordable and quality services to the access centers.

- Content -- to construct and implement an environment for the creation, dissemination and distribution of local content.

- Capacity-building -- to develop organizational schemes, agents and competencies to ensure that Indigenous communities have the skills needed to incubate, develop and sustain school-based access centers.

- Participation - to ensure inclusiveness within the community and the effectiveness of tasks carried out in all the areas outlined above.

3.1 Key Elements of Regulation

Governments may want to incorporate these elements into legislation or regulatory frameworks, although the manner in which they should be applied will vary according to a country's particular historical, political and social conditions.

➢ Universal Service -- Clear regulations and policies on universal service are needed for school access centers, to ensure the

availability of affordable Internet access and the evolution of broadband services.

➢ <u>Spectrum Management</u> -- Proper spectrum planning should reflect Indigenous peoples' communication needs.

➢ <u>Training and Acquisition Support</u> -- This element ensures sustainability of the centers, facilitating the presence of technical personnel in the area who can maintain the network, update and develop centers, and produce local content material.

➢ <u>Promoting Indigenous Content</u> – Regulations should recognize multiculturalism and multilingualism, promote transparency, and foster distribution channels for Indigenous content.

➢ <u>Participation of Indigenous peoples:</u> Consulting Indigenous peoples and promoting their participation is the basis for any design and implementation of public policies aimed at helping Indigenous people. The design and implementation of media is no exception.

3.2 Infrastructure and Technology

Infrastructure and technology are generally the most salient elements in ICT development policies for remote areas and Indigenous communities. In many cases, the policies achieve only the build-out of infrastructure that is later abandoned or underused. Therefore, technology adoption is, without a doubt, an essential element to be considered, with the most appropriate technology being matched to any given locality.

The public policy framework must establish implementation and development stages to enable the analysis of needs and conditions that will be used later in the selection of appropriate technology. In this regard, it is always beneficial for programs to be open-minded about considering all available technologies, including new ones.

The adoption of technology takes place when the need is combined with the tool, Actual adoption of technology really takes place when a given technology or tool meets the needs of the community, and the community adapts it to match the community's unique circumstances. The same technology is further leveraged as users identify other needs that it can meet. Therefore, the process must go step-by-step, identifying needs incrementally and identifying how technology can meet those needs.

The developmental objectives of the community are determined within its particular political and cultural context. To do that, an integrated analysis is done of the distinctive micro and macro factors that determine the prevailing cultural systems. At this point the analysis must consider three aspects:

> *The available resources*: These include natural resources, technologies, skills, knowledge and capacities, access to education, sources of credit and social networks.

> *The resource context*: This is an analysis of everything that limits or boosts access to resources, including the political, economic and technological conditions, as well as externalities such as natural disasters, epidemics, violent conflicts, seasonal cycles, productive factors and prices, etc.

> *The social environment*: The political realities and institutions that affect the ways in which resources are used.

The analysis performed in these areas determines the development objective to be achieved and the context in which technology will be adopted. This, in turn, acts as a first filter in order to rule out or identify appropriate technological tools.

The challenge for Indigenous peoples is to ensure that new technologies are culturally adapted to the specific needs of each community. Therefore, the selection and deployment of the technology to be used has to be tailored to benefit Indigenous communities. Otherwise, connecting the community can run counter to community values, such as autonomy, that Indigenous communities seek to strengthen. Moreover, the sustainability of the project will undoubtedly be affected.

3.3 Local Content

Connectivity planning often leaves out program content. This is like building a road without having any vehicles to travel on it. A national connection plan must be accompanied by a plan to develop content. It is also necessary for community access center plans, or connectivity through schools, to address this issue. The production of local programming usually signifies the evolution of community access centers from information access nodes into centers of cultural life and economic activity – a very desirable leap, but not one that is easily made.

Key elements of an environment conducive to the development of local content include:

> <u>Ensuring conditions throughout the cycle of development of local content</u> -- In designing a national plan to produce local or

Indigenous content, action must be taken at all stages of the cycle: training, production, distribution and enforcement of regulations.

➢ Market creation -- All local content policy needs to ensure the creation of a market for the distribution of local media products. There are numerous ways to create markets, including festivals, promotion of Indigenous educational content and local production subsidies.

➢ Appropriate Public Policy -- Actions should emphasize the need for clear and measurable objectives that must cover the whole cycle of local content development. This means knowing whether the development objectives help fulfill a local content production policy, which can extend from strengthening cultural values of a particular sector to positioning their products in a given market.

➢ Training and availability of means of production -- For production purposes, it is essential that Indigenous communities be able to count on trained members of their communities. It is also important to train individuals to find manuals and courses, as well as audio and video tools, in Indigenous languages, because many Indigenous cultures are orally based.

➢ Access to Local Production -- Materials are now increasingly found online, which allows Indigenous media to find relevant material that can be used to expand programming. The digitization of Indigenous productions by academic institutions and governments is undoubtedly an essential element for the dissemination of local content.

3.4 Capacity-Building

Capacity-building for digital community centers in Indigenous areas covers everything from planning and operation of basic tools, maintenance and installation of networks and equipment, and development of applications, up to advanced research in applications, networks and regulation.

The task of governments is to develop institutional capacities and human resources to strengthen their communities. It is best to achieve this not through direct assistance, but through the strengthening of local resources and the provision of aid to networks that contribute to the development of community access centers.

The most repeated problem with the installation of ICT access centers in Indigenous communities is that the people involved in strategy and implementation lack experience in community work. So they often propose programs from the perspective of outsiders. The errors in building access centers often violate community social structures and come to create real conflicts that ensure the failure of the centers and affect the likelihood of successfully undertaking other collective projects.

The installation of a digital center within an Indigenous community is a political and social event, bringing along with it empowerment that must be appropriately managed, so that it benefits the community as a whole and not just one individual or group.

Prior to the access center's installation, it is necessary to work with the community to name a committee that will shepherd the planning and construction process and that will, by preference, continue the technical assistance work of the center after its opening. Having a committee that participates in all stages of the process allows the community to have personnel that understand the functioning of the network and the center, because they have participated in its planning and construction.

Before the digital community center begins operating, the community will need to review its development aspirations and find the place that the access center will occupy in reaching its objectives. In the appraisal, the different groups within the community must recognize the usefulness of the digital center and define what objectives they hope it will help them meet. That way, training needs can be identified based on their real value. It is important that participatory appraisals involve all sections of the community -- and above all the most vulnerable, including women, children, marginalized groups or persons with disabilities.

4. Installation and Operation of Community Access Centers

Although national strategies for developing ICTs in Indigenous communities are a very important contribution, the role of the communities themselves is essential. There are many examples across the world where communities have managed to establish sustainable projects in spite of political indifference towards the development of ICTs. Through networking and organization, grass-roots projects have often managed to transform national politics.

The adoption of digital technologies often follows an organic path with the following stages:

1. <u>Discovering</u>: The project has to find its place in the core of the community life plan. This is what will keep it alive in the life space of the community.

2. <u>Organizing</u>: The project needs to find the people and the community spaces that will help it to develop.

3. <u>Defining</u>: The project must be clearly defined and based on a plan of execution.

4. <u>Connecting</u>: In this stage, the project has to find other, similar projects that it can align itself with. The best way is to start by looking for the closest ones and then to join forces with them.

5. <u>Networking</u>: The project organizers will notice that there are many more projects like it, sharing a lot in common, and that together they can achieve the changes they are looking for. At this point, the project embarks on a journey to link itself to support resources around the world.

6. <u>Telling and reflecting about its story</u>: The project has a full existence. It is now growing, and it needs to see the path it is taking and the way it is growing.

5. Reviewing What's Been Learned

The use of ICTs for the development of Indigenous peoples and isolated communities goes way beyond the supply of connectivity to a school. Connectivity is just a link in a long chain of actions required for the ICTs to be used for the benefit of the communities. In this task, the government and the communities have mutual responsibilities that need to be fulfilled so that the ICTs are truly a tool that contributes to development.

It is important to highlight, as a conclusion, that in order to assure the sustainability of the connectivity projects in isolated areas, there must be an integrated strategy that takes into account all of the aspects of an enabling environment, especially the participation of the targeted communities. Full community participation is very important for long-term success and sustainability of digital centers.
The steps presented in this module do not guarantee immediate results or growth in connectivity over short periods, but they provide the basis for a long-term, integrated strategy that will result in solid projects, which in turn will allow the development of more ICT projects. Those

who have lived in Indigenous communities, or in communities where resources are scarce, have learned that the organized work of the community is the essential engine for success. We know very well that, beyond the supply of economic resources, the most important feature is the organization of members of the community in the effective use of local resources, which apart from the available material resources, include their abilities and relationships with other people, communities and institutions.

In order to achieve success in ICT projects that match their development objectives, communities need to carry out intensive reflection and organizational work that can prompt the necessary actions to be performed in the communities. Thus, it is an essential objective for governments to open spaces for participation in all of the aspects related to the development of ICTs in isolated and Indigenous communities.