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# CONTRIBUTION BY CAMEROON ON INDICATORS ON COMMUNITY ACCESS TO ICTs

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### 1 Summary

The purpose of this contribution is to analyse the community access indicators of the regional workshop held in Mexico from 6 to 9 October 2003.

This analysis is based on a methodology which begins by defining the key factors of community connectivity and then develops access indicators, and includes the identification of measurables.

### 2 Key factors in community access

The key factors in community access are essential to the shaping of community access to achieve the objective of ensuring that everyone can access telecommunication and Internet services. They are determined by the answers to the following questions:

a) Who are the community access programmes developed for?

#### **UTILIZATION**

b) What means are used to implement the programmes?

# MEANS = INFRASTRUCTURE + HUMAN RESOURCES + AFFORDABILITY (physical, human and financial means)

c) How is the durability of such programmes guaranteed?

### **CONTENT**

The successful combination of these three (03) key factors is decisive to ensuring access for everyone to telecommunication and Internet services in order to reduce the digital divide between, on one hand, north and south and, on the other, rural and urban areas.

### 3 Community access and policy inputs

Community connectivity requires certain inputs; to this end, it will be necessary to identify the measurables that relate to access to telecommunication and Internet services, from which progress indicators can be derived.

The measurables are those needed to answer the following question:

How can progress in community connectivity be measured? In other words, how can one measure access to telecommunication and Internet services using a DCC?

Key factors		Measurables	Progress indicators	Comments
		Electric power <sup>1</sup>	<ul> <li>Supply of electric power to locality served by DCC;</li> <li>Type of supply (primary, secondary);</li> </ul>	Depends on national electric power policy or community support
			<ul> <li>Number of localities connected to a public Internet access centre (PIAC);</li> </ul>	
			<ul> <li>Number of localities connected to a government PIAC;</li> </ul>	
			<ul> <li>Number of localities connected to a private PIAC;</li> </ul>	
			<ul> <li>DCC density in rural areas;</li> </ul>	
			<ul> <li>DCC density in urban areas;</li> </ul>	
Means	Infrastructure	Geographical coverage	<ul><li>Total number of DCCs;</li></ul>	International comparison
			<ul> <li>Number of PIACs transformed into DCC each year;</li> </ul>	
			<ul> <li>Number of new DCCs per 1 000 inhabitants;</li> </ul>	
			<ul> <li>% of population with access to a PIAC;</li> </ul>	
			<ul> <li>Number of Internet users via a PIAC;</li> </ul>	(utilization)
			- DCC distribution rate (rural areas, urban areas);	Internal digital divide
		Equipment	<ul> <li>Total number of computers in a DCC;</li> </ul>	(utilization) congestion Population served/number of computers (establishment of DCC) or actual users/number of computers (counter)
			<ul> <li>Number of users per computer in a DCC;</li> </ul>	
			<ul> <li>Average broadband capacity of a DCC<sup>2</sup>;</li> </ul>	
			- Average increase in broadband of a DCC <sup>3</sup> :	
		Maintenance	Total number of faults per month per type of equipment;	Depends on quality of service
			<ul> <li>Average fault-clearance time per month per type of equipment;</li> </ul>	
	Human resources	Training	<ul> <li>Level of education of course administrators (supervisors) of DCC;</li> </ul>	
		Schooling	- % of schools connected to DCC;	

	Affordability	Access cost	<ul> <li>Average hourly access cost of a DCC<sup>4</sup>;</li> </ul>	
			State subsidies per DCC (in cash or in kind);	
		Financing	<ul> <li>Share of ICT-project public funding allocated to DCCs;</li> </ul>	Absolute and relative value
			<ul> <li>Contribution of local authorities to financing of DCCs (in cash or in kind);</li> </ul>	Extent of community commitment
		Household income	<ul> <li>Average household income;</li> </ul>	
			<ul> <li>Amount which a household is willing to pay per month for access to the services of a DCC;</li> </ul>	
Content		Local content	Types of application used on the Internet;	It is up to each country to define "type"
		Websites	- % of websites in local languages;	
			<ul> <li>Potential DCC population;</li> </ul>	
			<ul> <li>Target population for a DCC's services;</li> </ul>	
			<ul> <li>User satisfaction;</li> </ul>	
Utilization		Users	<ul><li>Literacy rate of target users;</li></ul>	
			<ul><li>Education level of user;</li></ul>	
			<ul> <li>Number of users trained to use Internet;</li> </ul>	
			- DCC retrocession rate	Number of DCCs retroceded/total number of DCCs
		Utilization	Actual utilization of services;	
			<ul> <li>DCC utilization rate;</li> </ul>	
			<ul> <li>Increase in actual utilization level;</li> </ul>	
		Distribution by social category	<ul> <li>Distribution by gender;</li> </ul>	
			<ul> <li>Distribution by age group</li> </ul>	

- <sup>1</sup> Three (03) cases are possible:
- establishment of DCC when the area served has no primary energy supply source (recourse to secondary energy sources);
- establishment of DCC in an area with a primary energy supply source, but with requirement for minimum investment for subscription (recourse to secondary energy sources if the investment cost is high);
- establishment of DCC in an area with a primary energy supply source, with the resources available to subscribe (ideal solution).
- <sup>2</sup> A DCC's broadband sizing depends on the services offered and users. One community service that embraces a large population of people around a given DCC in the developing countries (especially in rural areas) is community television. This nevertheless requires considerable broadband to produce a good picture. The problem of affordability therefore arises, given the high cost of pass-band.
- <sup>3</sup> The average increase in broadband of a DCC makes it possible to assess service utilization capacity.
- <sup>4</sup> DCCs offering Internet services free of charge should be included in the calculation of the average cost, provided that they also offer other, pay services. Otherwise, they should preferably be excluded from the calculation.

### Italicized data constitute new proposals

Most of these indicators would be produced by specialized surveys. It would therefore be desirable to create a mechanism within ITU/BDT to support the financing of such surveys in the developing countries. This would both guarantee the reliability of the survey results at global level, and lead to the development of specific recommendations for the least developed countries.

It should be noted that in order to build an information society, the basic input is information. This information must be reliable if we are to ensure that the information society functions well. Assuming an average of two (02) surveys per year, ITU could contribute to financing the second on condition that the first has been carried out by the requesting developing country. This principle would allow the indicators to be kept up to date, and would allow proposals on sustainable development to be made to the developing nations.

## 4 Proposed definition of a DCC

A DCC is a centre whose dimensioning may or may not be based on the requirements of the target users of a community and whose purpose is to provide that community with access to telecommunication and Internet services using community access equipment made available to it. Such access must be equitable, universal and affordable.