

Executive Summary

ICT AND TELECOMMUNICATIONS IN LEAST DEVELOPED COUNTRIES

Review of Progress Made During
the Decade 2000-2010

ICT Service / Applications

Strategies & Policies

Universal Access

Smart Skills

New & Low Cost Technologies

Emergency Telecommunications



The vulnerability of least developed countries (LDCs) to external economic shocks, the environmental effects of climate change, as well as their low levels of literacy, among other factors, challenge the ability of LDCs to meet national and international development goals, including the Millennium Development Goals (MDGs). Recognizing the importance of telecommunication infrastructure and information and communication technologies (ICT) in promoting economic growth, the Third United Nations Conference for the LDCs, in its 10-year Programme of Action – known as the Brussels Programme of Action (BPoA) –, called on LDCs to develop their telecommunication infrastructure, so as to meet two specific goals by 2010: *Increasing telephone density to five main lines per 100 inhabitants and Internet connections to 10 users per 100 inhabitants.*

This *ICT and Telecommunications in Least Developed Countries* report seeks to evaluate the progress made by LDCs in meeting these ICT-related targets, thus supporting the Fourth LDC Conference on LDCs' (LDC-IV) assessment of the implementation of the BPoA commitments, outlined in its Framework for Partnership. In particular, this publication reviews the evolution of the deployment and usage of telecommunication and ICT networks in the LDCs during the 2001-2010 decade, identifying factors that have either constrained or facilitated progress in these areas. The report also overviews the synergies that exist between the BPoA's commitments and the activities and projects implemented by the International Telecommunication Union (ITU) under its Programme for Least Developed Countries, Countries in Special Need, Emergency Telecommunications, and Climate Change Adaptation. The report provides a detailed list and description of activities undertaken by the ITU under each of the seven BPoA commitments.

During the last decade, LDC governments have advanced significantly in deploying telecommunication networks and introducing new wireless and broadband technologies to promote economic development. Moreover, many LDCs have successfully reformed their telecommunication sectors, establishing the necessary legislative and institutional framework to promote competition, encourage domestic and foreign investment in the industry and advance towards achieving universal access.

ICT uptake in LDCs has grown at double and even triple digit rates since 2005 for services such as mobile cellular telephony and fixed Internet subscriptions, slightly reducing the gap between LDCs and developing countries. As of 2010, it is estimated that about one third (29.1 per cent) of the population in LDCs had mobile cellular telephone subscriptions. In terms of overall telephone service penetration or teledensity, the combination of fixed telephone lines and mobile cellular subscriptions has helped LDCs surpass the BPoA's target of 5 main lines per 100 inhabitants. As a group, LDCs have increased their total teledensity from

an average of 1.1 main lines per 100 inhabitants in 2001 to 27.2 per cent in 2009. While in 2001 only six LDCs - Mauritania, Senegal, Gambia, Tuvalu, Samoa and Maldives - had 5 or more main lines (fixed lines plus mobile cellular subscriptions) per 100 inhabitants, by 2009 all LDCs, but Myanmar and Eritrea, were above the BPoA threshold, having surpassed the target ten, twenty and even 35 times-fold, as is the case of the Maldives.

Progress has been slower in terms of Internet usage, where LDCs, as a group, remain well behind the 2010 goal set in the BPoA. The number of Internet users per 100 inhabitants in the LDCs range from below 0.5 per cent in East Timor, Myanmar, Bangladesh and Sierra Leone, to over 15 per cent in Sao Tomé and Príncipe, Maldives, Cape Verde and Tuvalu, by late 2009. While the latter group of countries has made extraordinary progress, with penetration rates reaching 43.3 users per 100 inhabitants in Tuvalu by 2009, 46 LDCs were then still below the 10 per cent penetration threshold set up in the BPoA as a target for 2010.

Digital gaps between developed, developing and least developed countries remain significant, and in some cases, are getting wider. There are also disparities in the growth of ICT penetration among regions, with Africa, the region with most LDCs, ranking last in most telecommunication services. These facts emphasise the need to address identified barriers constraining further development in the telecommunication and ICT sectors of LDCs.

As the leading United Nations agency for telecommunications and ICT issues, the ITU is committed to address the special needs of LDCs and help close existing gaps in universal and information access in these countries. The ITU Programme for LDCs focuses its activities on four priority areas: Universal access to ICT, emergency telecommunications, climate change adaptation, and the provision of concentrated assistance to LDCs and countries with special needs¹ to help them meet the Millennium Development Goals (MDGs) by the target year of 2015.

Since the adoption of the Brussels Programme of Action in 2001, ITU has worked hand in hand with its LDC Member States to help them meet the targets and commitments of the BPoA's Framework for Partnership. During the last decade, the ITU Programme for LDCs provided concentrated assistance to an average of twelve LDCs for a period of two years, assisting a total of 42 of the 48 countries under the LDC status. Implementing nearly 200 concentrated assistance and ad-hoc activities and more than 60 longer-term projects, the ITU Development Sector, through the Programme for LDCs, has helped build human and institutional capacity on ICTs among LDCs, strengthening their telecommunication policy and regulatory frameworks, and facilitating the deployment of new technologies and rural telecommunication infrastructure, among other accomplishments.

¹Refers to countries emerging out of war or natural disasters

Moreover, taking into consideration the increased vulnerability of LDCs and particularly of Small Island Developing States (SIDS) to climate change, the programme also provided assistance in disaster risk reduction, focusing on activities relating to disaster prevention, preparedness and relief, as well as on the adaptation to climate change. For those countries affected by disasters, the Programme coordinated assistance with emergency telecommunications, and provides support in infrastructure reconstruction to countries with special needs due to the devastation of war or civil strife.

Based on ITU experience providing concentrated assistance and implementing projects in LDCs, the report examines identified vulnerabilities, bottlenecks and constraints that impede progress in these countries' telecommunication sectors, such as the availability of affordable, adequate and reliable bandwidth on international links, insufficient local content and political and regulatory instability. Emphasis is given to the advances made by the LDCs, the international development community and the private sector in addressing some of these barriers during the last decade, in particular as it relates to the coordination of activities among these stakeholders to make efficient use of limited human and financial resources.

In anticipation to the assessment and discussions to be held at LDC-IV in May 2011, the report proposes a series of recommendations to help LDCs move forward in the goal of meeting the MDGs by 2015 and to aid a larger number of LDCs to graduate from such status during the current decade.



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