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ESCAP Technical Paper

**Application of ICT indicators to
assess the current status of
ICT and e-readiness in
Asia and the Pacific**

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Information and Communications Technology and
Disaster Risk Reduction Division

Application of ICT indicators to assess the current status of ICT and e-readiness in Asia and the Pacific

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Abstract

Access to ICT was a central theme in the World Summit of Information Society (WSIS) Plan of Action adopted in Geneva in 2003 and Tunis in 2005. The goal was to ensure more than half the people in the world have access to Information and Communication Technology (ICT) by 2015, among other goals. Although it has been 6 years since the WSIS Plan of Action was adopted, the goal may not be reached the way things stand. Therefore, more strategic and well targeted initiatives are required in order to meet the goal of WSIS.

The purpose of the paper is to illustrate the status of ICT initiatives and implementations which aim to bridge the digital divide. More precisely, this paper aims to help assess how many people, what kind of groups of people and which regions have been left out from accessing ICT, and to identify the main problems of further expanding ICT access which is the foundation of an inclusive information society. Without such foundation, meaningful utilization of ICT for development would not be feasible.

Based on the above preliminary research on the current status of the digital divide, latest and emerging technologies, and ICT for development initiatives in Asia and the Pacific, this report concludes that the LDCs, LLDCs and SIDS still face numerous difficulties in terms of implementation of ICT initiatives, introducing ICT access and assessing the ICT access need of people in the region. This report then recommends holistic and comprehensive ICT implementation approaches among the developing countries of Asia and the Pacific, namely 1) reinforcing regional cooperation initiatives, 2) adopting appropriate technologies and maximizing the benefits of existing infrastructure and initiatives, and 3) raising public awareness.

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1. Introduction

During the past decade, Asia and the Pacific region has experienced continuous Information and Communication Technology (ICT) infrastructure developments. ICT penetration in major cities in most of the countries has been fulfilled; however, in rural areas it is far below satisfactory levels and many people in those regions still do not have access to ICT. The digital divide still is a serious problem in Asia and the Pacific, since the region has extremely diverse income, population size, and geographical features, ranging from land-locked regions in the area of Himalayas and Central Asia to isolated islands in the Pacific. According to the latest ESCAP figures, over 50 out of 100 populations in the ESCAP region have mobile connection access, on average. However, when the figure is disaggregated, stark sub-regional and sub-national disparities become obvious.

Fibre optic cables have become indispensable backbone connections among the countries, while emerging wireless and space technology present good approaches to broaden coverage where the ground-based broadband has not reached or cannot reach. Therefore, technology is ready to penetrate any area around the world. The key issue to bridging digital divide is how to reach “Last Mile” by using combinations of latest technologies and overcome various socio-economic barriers which prohibit wider ICT access.

2. Objective

Access to ICT was a central theme in the World Summit of Information Society (WSIS) Plan of Action adopted in Geneva in 2003. The goal was to ensure more than half the people in the world have access to ICT by 2015, among other goals. Although it has been 6 years since the WSIS Plan of Action was adopted, the goal may not be reached the way things stand. Therefore, more strategic and well targeted initiatives are required in order to meet the goal of World Summit on the Information Society (WSIS).

The purpose of the paper is to illustrate the status of ICT initiatives and implementations which aim to bridge the digital divide. More precisely, this paper aims to help assess how many people, what kind of groups of people and which regions have been left out from accessing ICT, and to identify the main problems of further expanding ICT access which is the foundation of an inclusive information society. Without such foundation, meaningful utilization of ICT for development would not be feasible.

First, this paper introduces the current situation of the digital divide in Asia and the Pacific. Using and comparing the latest statistical data, it provides a bigger picture of ICT access through examining ICT penetration rate and nature of the digital divide in this region. Second, the paper discusses some latest technologies, such as broadband, wireless, and space technology, which could bridge the digital divide as significant access methodologies: This helps to determine which methodology is suitable to bridge the digital divide in certain locality and under certain condition. Finally, the paper identifies major and strategic ICT projects, mainly at the regional, sub-regional and national levels, which have been undertaken in Asia and the Pacific with a view to expanding ICT access. Those projects are also analyzed and assessed based upon their experiences and recommendations.

3. Methodology

This paper is a study and literature review of ICT projects in Asia and the Pacific based on the project reports, annual reports, research papers, and case studies which are all published and accessible on the Internet. Some statistical data are calculated based on ESCAP standard definitions.

4. Definitions and scope

4.1. Scope of the research

The information is focused on the materials issued in 2004 and onwards (up to July, 2009), covering topics related to ICT access and connectivity and ICT projects in Asia and the Pacific. There are many aspects of ICT for development; however, this paper mainly focuses on ICT connectivity as a foundation of an inclusive information society.

The project and initiatives are selected and assessed in the paper based on the following criteria:

- (a) Large scale projects at regional, sub-regional, and national levels.
- (b) Implementation methods are considered adequate, promising, and useful for the expansion of ICT.
- (c) Mainly the projects are funded and/or implemented by international organizations, financial institutions, research institutions, and governmental agencies.
- (d) Focus countries include least developing countries (LDC), landlocked developing countries (LLDC), and/or small island developing States (SIDS).

4.2. Definition of member States in Asia and the Pacific

This background paper focuses on regional and national ICT implementation in Asia and the Pacific, the area including East Asia, Central Asia, South Asia, Southeast Asia, Oceania, and islands in the Pacific. There are 53 ESCAP member States, and 9 associate members; within the member States, 14 are considered as LDC, 12 are LLDC, and 20 are SIDS¹.

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