

2006

Information and Communications  
for Development



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# Global Trends and Policies



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1818 H Street, NW  
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Telephone: 202-473-1000  
Internet: [www.worldbank.org](http://www.worldbank.org)  
E-mail: [feedback@worldbank.org](mailto:feedback@worldbank.org)

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## Foreword

Information and communication technology (ICT) has a critical role to play in development efforts around the world. There was a time when the benefits of applying ICT in fighting poverty and promoting economic growth were not widely understood. Many in the development community questioned how high-tech (and often expensive) communication technology could be used to alleviate such dire challenges as starvation, homelessness, and lack of basic education and health services. Lately, however, this view has given way to an understanding of ICT as an essential component of broader efforts to harness the free flow of information to increase voice, accountability, and economic development.

In recent years, developing countries and the international development community have started taking concrete actions to incorporate ICT into their economic policies and development agendas. Many countries are preparing and implementing national e-strategies that emphasize the ubiquity of connectivity as well as new applications in areas such as e-government and e-business. The Millennium Development Goals (MDGs), drawn from the United Nations Millennium Declaration and adopted in September 2000, have several specific targets involving ICT as a tool for reducing poverty. Nevertheless, improving the identification and

measurement of the actual effects of ICT in development remains an important challenge going forward, especially in light of the rapid pace of change in the sector and the dearth of concrete, long-term data across countries.

In this context, *Information and Communications for Development 2006: Global Trends and Policies* offers a realistic assessment of experiences, trends, and outlook on the ICT sector, with a focus on actual results and justified expectations. It attempts to track and analyze global ICT development trends and to provide empirical evidence of the benefits that ICT is providing in terms of economic growth and poverty reduction. Indicators for the MDG targets, among others, have been incorporated into the ICT At-a-Glance tables compiled for this report.

It is our hope that this report will contribute to the creation of a basis for more systematic monitoring and evaluation of the progress and impact of ICT, as well as provide useful insights on ICT for development in general.

*Katherine Sierra*  
*Vice President, Infrastructure*  
*The World Bank*



## Preface

The international community is increasingly committed to the monitoring and evaluation (M&E) of development programs. The World Bank Group has sharpened its focus on results in its own strategies, operations, diagnostic work, and instruments. It has put a premium on better measurement of outputs and outcomes in order to assess progress toward well-defined goals, increase accountability, and better understand the Bank's contribution to sector performance—ultimately supporting policy advice and decision making.

The Global Information and Communication Technologies Department (GICT) is the World Bank Group department that focuses on the ICT sector. In response to the call for increased M&E efforts for ICT by the development community, most notably during the World Summits on the Information Society held in Geneva in 2003 and Tunis in 2005, GICT is undertaking several initiatives to advance methods of monitoring results in ICT for development projects.

GICT's results measurement agenda aims to strengthen the availability of ICT sector indicators at country, micro, and project levels. Consolidating data from many different sources, GICT has defined a core set of information-and-communication-related indicators to create tables that present a snapshot of country-specific ICT issues. These

“At-a-Glance” tables, found in Part II of this volume, provide an overview of ICT sector growth as it relates to the general economic status of particular countries.

The purpose of *Information and Communications for Development 2006: Global Trends and Policies* is to consolidate all these M&E efforts and share the findings with the development community. In addition to ICT At-a-Glance tables for 144 economies, this report includes analytical work that applies these data to a range of topics: investment trends, principles and practical solutions to extending ICT services, the role of ICT in doing business, trends in national e-strategies, and approaches to tracking ICT globally.

Further efforts are needed to coordinate and make M&E analysis fully operational in the arena of ICT for development. The World Bank Group stands ready to work with countries and the international community to determine how best to use ICT for poverty reduction and economic growth in the developing world. It is hoped that this report will play a positive role in these efforts.

*Mohsen Khalil*  
*Director, Global Information and Communication*  
*Technologies Department*  
*The World Bank Group*



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## Abbreviations and Acronyms

\$	All dollar amounts are U.S. dollars unless otherwise indicated.	EDI	electronic data interchange
2G	second-generation (mobile communication technology)	FDI	foreign direct investment
3G	third-generation (mobile communication technology)	GATS	General Agreement on Trade in Services (WTO)
AAG	at-a-glance	G2B	government-to-business
APDIP	Asia-Pacific Development Information Programme	G2C	government-to-citizens
ATM	automated teller machine	G2G	government-to-government
B2B	business-to-business	GICT	Global Information and Communication Technologies Department (World Bank Group)
BOPSY	Balance of Payments Statistics Yearbook	GSM	Global System for Mobile Communications
BOT	build-operate-transfer	HHI	Herfindahl-Hirschman Index
BRIC	Brazil, Russia, India, and China	ICC	International Chamber of Commerce
CAFTA	Central American Free Trade Agreement	ICDL	International Center for Distance Learning
CERT	computer emergency response team	ICS	Investment Climate Surveys
CRM	customer resource management	ICSID	International Center for Settlement of Investment Disputes
CIO	chief information officer	ICT	information and communication technology
DAC	Development Assistance Committee (OECD)	IFC	International Finance Corporation
DECDG	Development Economics Data Group (World Bank)	IMF	International Monetary Fund
DOI	Digital Opportunity Initiative	IP	Internet protocol
DOT Force	Digital Opportunity Task Force	IPR	intellectual property rights
DSL	digital subscriber line	ISP	Internet service provider
ECOSOC	Economic and Social Council (UN)	ITU	International Telecommunication Union
ECTEL	Eastern Caribbean Telecommunications Authority	M&A	mergers and acquisitions
		MDGs	Millennium Development Goals
		M&E	monitoring and evaluation

MPDF	Mekong Project Development Facility	UNCTAD	United Nations Conference on Trade and Development
NPV	net present value		
OECD	Organisation for Economic Co-operation and Development	UNDESA	United Nations Department of Economic and Social Affairs
OECS	Organization of Eastern Caribbean States	UNECA	United Nations Economic Commission for Africa
PIACs	public Internet access centers		
PIAP	public Internet access point	UNPAN	United Nations Online Network in Public Administration and Finance
PKI	public key infrastructure		
PPI	Private Participation in Infrastructure	UPU	Universal Postal Union
PTO	public telecommunications operator	VoIP	voice-over Internet protocol
SME	small and medium enterprise	WB	World Bank
TERENA	Trans-European Research and Education Networking Association	WDI	World Development Indicators
TFP	total factor productivity	WHO	World Health Organization
TNI	Transnationality Index	WiFi	wireless fidelity
UMTS	universal mobile telecommunications system	WiMAX	worldwide interoperability microwave access
		WITSA	World Information Technology and Services Alliance
UN	United Nations	WLL	Wireless Local Loop
UNCITRAL	United Nations Commission on International Trade Law	WSIS	World Summit on the Information Society
		WTO	World Trade Organization