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ICT for Development Policy, Process and Governance

APCICT Briefing Note No. 2

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Summary

This briefing note looks at what the current (digital) technology is capable of and what this implies for policymaking. Divided into three sections, the first section examines the process of crafting policies that would be best suited to the needs of both the government and citizens. It includes discussion on an ICT development model, the relationship between technology and policy, and multi-stakeholder ICT policymaking. The second section of the briefing note focuses on some of the critical elements of a national ICT for development policy, particularly ICT capacity development, building the ICT industry and e-governance. The third section emphasizes the need for an ICT governance framework comprised of a set of principles, a decision-making hierarchy, and a tailor-made suite of reporting and monitoring processes, in order to maximize the effective use of ICT to achieve national development goals.

This briefing note is drawn from the second of nine core modules of the Academy of ICT Essentials for Government Leaders (Academy). The Academy is a comprehensive ICT for development training curriculum that aims to equip policymakers with the essential knowledge and skills to fully leverage opportunities presented by ICT to achieve national development goals and bridge the digital divide. More information on the Academy is available at <http://www.unapcict.org/academy>.

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1. Introduction

As many policymakers are unfamiliar with the technologies they are harnessing for national development, they have often shied away from information and communication technology (ICT) policymaking. But leaving ICT policy to technologists is ineffective because they are often unaware of the policy implications of the technologies they are developing and using. This briefing note on ICT for Development (ICTD) Policy, Process and Governance provides a guide to developing appropriate ICT policies for development.

2. Developing ICTD Policy

It is argued that ICT policy like any other public policy is both what is articulated in pronouncements and documents, as well as what is practiced by governments. While public policy aims for the public good, public policy does not always embody the best possible solution to a given issue or problem. ICT policymaking is not only about the best technical/scientific response to an issue; it is primarily about the best technical solution acceptable to all (or majority of the) stakeholders. This process requires **identification of a suitable ICT development model, assessment of current laws and regulations, and analysis of stakeholders.**

An ICT Development Model

Discussions on an ICT Development Model begin by recognizing that the market-led ICT development model is the dominant model followed by many countries. A case in point is telecommunications. Today, the private sector is seen as the main player in telecommunications when only two decades ago, government ownership of telecommunication networks was the norm.

The benefits of market-led ICT development model include: 1) boosting consumer benefits by reducing prices for services and products, and by increasing choice and service quality; 2) reducing the cost structure of exporting and upstream sectors to improve competitiveness in regional and global markets; 3) addressing the lack of flexibility and innovation in the supply-side of the economy, which will be an increasing constraint to growth; and 4) helping to increase employment rates by creating new job opportunities, and by doing so reducing fiscal demands on social security, which is particularly important in an aging population.¹

Although markets have a leading role to play in ICT development, this does not mean that government (or the state) and civil society have no roles to play. The challenge is to find the appropriate balance that will be responsive to the ICT development needs of specific countries.

Non-governmental organizations (NGOs) are increasingly recognized as an important force in development. The Asian Development Bank recognizes the following as the particular strength of NGOs in development: 1) serving as bridges to affected communities; 2) ensuring projects are implemented as envisaged; 3) nurturing continuity in project work; 4) advocating for increased transparency and good governance; and 5) giving voice to vulnerable and/or marginalized group.

¹ Scott H. Jacobs, "The Second Generation of Regulatory Reforms" (paper prepared for delivery at the IMF Conference on Second Generation Reform, Washington, D.C., USA, 8-9 November 1999), <http://www.imf.org/External/Pubs/FT/seminar/1999/reforms/jacobs.htm>.

The Relationship Between Technology and Laws

Open markets, deregulation and liberalization are not enough to cause sustained, rapid growth of ICT. Policy must also work towards strengthening regulatory bodies and formulating new laws for ICTD. This is because technological changes normally outpace legal and regulatory reforms. Hence, we face the situation where old rules are being used to govern new things. It is argued that policymakers (and regulators) should assess the extent to which current laws and established regulations hinder or hamper the spread of new technology and the development of new businesses. For instance, with the advent of the Internet, there is a need to change the way the network or infrastructure is regulated. It is now possible to treat service providers as a distinct group from network facility providers. To what extent have your laws been repealed to reflect this development?

Stakeholders Analysis

Stakeholders are individuals, groups or organizations who have an interest in the policy being formulated. They also represent different interests and bring different agenda to the table. Multi-stakeholder ICT policymaking is an emerging norm. The World Summit on the Information Society recognized that “governments, as well as private sector, civil society and the United Nations and other international organizations have an important role and responsibility in the development of the Information Society and, as appropriate, in decision-making processes.”

Among the reasons why multi-stakeholder policymaking is deemed important are: 1) it promotes inclusiveness and equity in ICT policy and implementation; 2) it expands the analytical capability to address ICT policy issues; 3) it promotes grass-roots mobilization and participation; 4) it promotes the development of focused and holistic action plans; and 5) it fosters the sharing of skills and innovation.

The following steps are to be considered in multi-stakeholders policymaking:

1. Identify the main purpose of the analysis.
2. Develop an understanding of the system and decision-makers in the system.
3. Identify principal stakeholders.
4. Investigate stakeholder interests, characteristics and circumstances.
5. Identify patterns and contexts of interaction between stakeholders.
6. Define options for government.

3. Elements of a National ICTD Policy

There are two key points about national ICTD policy. First, to be effective, the national ICTD policy must be comprehensive – addressing both the demand and supply side of the issue. The second point is that national ICT policymaking is not a one-time activity. One should not plan to achieve all conceivable national ICT goals in one document. A document with too many goals tends to lose focus. Too many objectives also mean more resources, or worse, badly allocated limited resources. It is instructive to note that the more successful countries have done a series of national ICT policies with new plans building on the foundation laid by previous plans.

This section does not attempt an exhaustive discussion on all the elements of a national ICTD policy. For illustrative purposes the focus is on three critical elements of any national ICTD policy: **capacity development, building the ICT industry and**

e-governance. The author has deemed information infrastructure development as sufficiently discussed in the literature of ICTD, hence it will not be dealt with in the briefing note. Admittedly, the development of the national ICT infrastructure should be an important component of a national ICTD policy. But because infrastructure is 'necessary but insufficient' for ICTD, infrastructure cannot be the primary focus of a national ICTD policy.

ICT capacity development

As noted by Bridges.org: "Any technology will be insufficient if people do not understand how to put it to effective use as part of their lives or their work, either because they are not trained to use it, or they cannot imagine the possibilities for how they could use it."² Thus, developing ICT skills should be treated as an important element of any national ICTD policy.

In developing ICT capacity programmes, policymakers face two general issues. The first is ensuring that all citizens have the basic competencies to succeed in the Information Age. These are normally ICT literacy courses that should be offered to all citizens. The second is to develop specialist ICT skills so that the country's ICT sector and economy in general could expand in a sustained manner. This includes developing specialized training and advanced ICT courses, and degrees in universities and colleges. These two are related as the former is the foundation for the latter.

Building the ICT industry

A national ICT industry is critical because it is a major economic sector in its own right. It can also serve as a driver of productivity and improved quality for the overall economy. Policies and strategies need to provide the right environment for the ICT sector – such as ICT hardware manufacturing, offshoring and global software development, and the digital content industry – to flourish and play its role in driving social and economic development.

An area of content development that Asian companies can focus on is digital mobile content. This includes mobile news, mobile transport information, mobile financial information services, mobile games, mobile music, ring tones and icon downloads, mobile entertainment, and mobile directories.

e-Governance

e-Governance is the use of ICT in the domain of administration (including public service delivery, regulation, law enforcement, security, improving bureaucratic efficiency and policymaking), and the domain of politics (the range of activities related to how society makes decisions and establishes values that are binding upon its members) at the local, national and global levels.

A governance perspective is used to highlight not only the institutional interactions usually associated with public policymaking but also the relationship of society to governing. But in terms of focus, this briefing note dwells on issues related to e-government, or the "use of ICTs to improve the activities of public sector organizations." This focus was chosen because ICT expenditures by government can influence the overall development of the local ICT industry and also because e-

² Bridges.org, "Real Access / Real Impact criteria ," http://www.bridges.org/Real_Access.

government makes possible good governance. Focusing on e-government would also help lower the high failure rate of e-government projects in developing countries.

Policymakers should be aware of the following reasons why e-government projects fail: 1) lack of internal drivers; 2) lack of vision and strategy; 3) poor project management; 4) poor change management; 5) dominance of politics and self-interest; 6) poor/unrealistic design caused particularly by lack of inputs from key local stakeholders, which leads to designs that are over-technical, over-ambitious, or mismatched to the local environment (e.g. culture, values and needs); 7) lack of requisite competencies; 8) inadequate technological infrastructure e.g. lack of sufficient computers or network; and 9) technological incompatibilities. See *Briefing Note No. 3 for a more detailed discussion on what e-government is and step-by-step guidelines on implementing e-government programmes.*

4. ICT Governance

ICT governance is about specifying decision rights and accountability framework so that the desired behaviour of ICT use is met.³ This is a critical but often overlooked element of ICTD policymaking. It is argued that governments seeking to maximize the use of ICT in the pursuit of development goals need to develop an ICT governance framework. This framework is usually comprised of **a set of principles, a decision-making hierarchy, and a tailor-made suite of reporting and monitoring processes.**

Australia's ICT governance principles is a good example of a set of principles for ICT governance. These principles are: 1) establish clearly understood responsibilities for ICT; 2) plan ICT to best support the needs of the organization; 3) acquire ICT validly. Ensure that ICT acquisitions are made for the right reasons in the right way, on the basis of appropriate and ongoing analysis; 4) ensure ICT performs well whenever required; 5) ensure ICT conforms to all external regulations and complies with all internal policies and practices; and 6) ensure ICT use respects human factors. Ensure that ICT meets the current and evolving needs of all of the people in the process.

In terms of creating a decision-making hierarchy for ICT, this is not new to governments. Many governments already have a national agency in charge of ICT. From current practice, there are at least four types of ICT decision-making bodies: **Ministry/Department** (e.g. Ministry of Communications and IT in India), **Commission** (e.g. High Level Commission for ICT in Nepal), **Authority** (e.g. National ICT Development Authority in Cambodia) and **Council** (Brunei Darussalam IT Council). The issue for countries with an existing ICT agency is whether the current arrangement is effective for their needs. For countries without an ICT agency, the issue is finding a suitable arrangement for effective ICT governance.

The third element of an ICT governance framework is a tailor-made suite of reporting and monitoring processes. The Better Practice Checklist for ICT Asset Management⁴ developed by the Australian Government's Information Management Office is an example.

³ Peter Weill and Jeanne W. Ross, *IT Governance: How Top Performers Manage IT Decision Rights for Superior Results* (Boston: Harvard Business School Press, 2005), 8.

⁴ Australian Government Information Management Office, *Better Practice Checklist – 24. ICT Asset Management* (Commonwealth of Australia, 2007), <http://www.finance.gov.au/e-government/better-practice-and-collaboration/better-practice-checklists/asset-management.html>.

Unfortunately, despite the importance of ICT governance, very few governments have adopted an ICT governance framework (i.e. principles, decision hierarchy, and routinized monitoring and evaluation processes) at the level of government as a whole or within each government agency. Policymakers seeking to play a leadership role in creating an ICT governance framework in their respective countries should start by considering Weill and Ross's 'Top Ten Leadership Principles of ICT Governance'.⁵ These principles, adapted for the public sector context, are:

1. Actively design governance. Management should actively design ICT governance around the enterprise's objectives and performance goals.
2. Know when to redesign.
3. Involve senior officials.
4. Make choices.
5. Clarify the exception-handling process.
6. Provide the right incentives.
7. Assign ownership and accountability for ICT governance.
8. Design governance at multiple organizational levels.
9. Provide transparency and education.
10. Implement a common mechanism across the six key assets (i.e. human assets, financial assets, physical assets, intellectual property, information and IT, relationships)

⁵ Adapted from Weill and Ross, *IT Governance*, 222-230.

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APCICT, a regional institute of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), was established and inaugurated on 16 June 2006 in Incheon, Republic of Korea. The role and mission of APCICT is to strengthen the efforts of the 62 ESCAP member and associate member countries to use ICTs in their socio-economic development through building the human and institutional capacity for ICT. In pursuance of this mandate, APCICT's work is focused on three inter-related pillars – Training, Advisory Services and Research. The Briefing Note Series is part of the research pillar. Also under the research pillar is a Case Study Series that provides analyses and compilations of best practices and case studies on different aspects of ICTD and capacity building in the Asia Pacific region.

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