

ICT for Development Policy, Process and Governance

United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development (APCICT)

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Summary

This briefing note looks at what current (digital) technology is capable of and what this implies for policymaking. The first section examines the process of crafting policies that would be best suited to the needs of both the government and citizens. It presents an information and communications technology (ICT) development model and discusses the relationship between technology and policy as well as multi-stakeholder ICT policymaking. The second section focuses on some of the critical elements of a national ICT for development policy, in particular ICT capacity development, building an 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 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 module 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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Module 2 -

ICT for Development Policy, Process and Governance

Focuses on ICTD policymaking and governance, and provides critical information about aspects of national policies, strategies and frameworks that promote ICTD.



4th APCICT Governing Council Meeting held in Incheon, Republic of Korea. (November 2009)

The APCICT Briefing Note Series aims to provide at-a-glance information on key information and communication technology for development (ICTD) agendas for high-level policymakers and stakeholders. The series includes: 1) highlights of conventional research papers, assessment and survey reports and publications; 2) policy considerations drawn from the Academy modules; and 3) key challenges and lessons learned based on analyses of best practices and case studies.

1 Introduction

Policymakers who are unfamiliar with the new information and communications technologies (ICTs) tend to shy away from ICT policymaking. But leaving ICT policy to technologists is not advisable because technologists 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 for development policies.

2 Developing ICTD Policy

Like any other public policy, ICT 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

Many countries follow a market-led ICT development model. Telecommunications is a case in point. 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 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.

But while 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. Open and competitive markets, deregulation, 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. For instance, the creation of an independent telecommunications regulator is important in ensuring quality telecommunications services at a low cost.

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 that 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 groups.

Markets have a leading role to play in ICTD, but this does not mean that government (or the state) and civil society do not have roles to play. The challenge is to find the appropriate balance that will be responsive to the ICTD needs of specific countries.

The Relationship between Technology and Laws

Technological changes normally outpace legal and regulatory reforms. Hence, we are faced with a situation where old rules are used to govern new things. 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 with an interest in the policy being formulated. They 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.”

Multi-stakeholder policymaking is deemed important for the following reasons: 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.



Participants engaging in discussion at the UN-APCICT/ESCAP Partners Meeting of the "Academy of ICT Essentials for Government Leaders," held in Incheon, Republic of Korea. (November 2009)

The following steps should be considered in multi-stakeholder 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. Not all conceivable national ICT goals can or should be planned for. Having too many goals at any one time requires more resources and could result in poor allocation of 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 of 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. Information infrastructure development, which is an important component of a national ICTD policy, is sufficiently discussed in the literature of ICTD and is therefore not dealt with in this briefing note.

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” 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. This is normally provided for through ICT literacy courses that should be offered to all citizens. The second issue is developing specialist ICT skills to enable the country's ICT sector and economy in general to expand in a sustained manner. This requires the development of specialized training and advanced ICT courses, and degrees in universities and colleges. ICT literacy serves as a foundation for specialized ICT training.

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 economy as a whole. 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 creative industries - to flourish and play its role in driving social and economic development.

China's rise as a centre of global ICT manufacturing, India's emergence as a global software powerhouse and China's efforts to develop creative industries are exemplary case studies. Consistent with the predominant market-led approach for ICTD, the module deals with how governments can provide the right environment to develop the national ICT industry.



*[UN Integrated Mission in Timor-Leste photo/ Antoninho Bernardino]
ICT Infrastructure in Timor-Leste*

e-Governance

e-Governance is the use of ICT in societal steering. 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. 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-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 of e-government and guidelines for implementing e-government programmes.

4 ICT Governance

ICT governance is about specifying the decision rights and accountability framework to achieve desired behavior in the use of ICT. This is a critical but often overlooked element of ICTD policymaking. Lack of ICT Governance usually results in extra costs due to duplicated, incompatible and, sometimes, unusable systems.

Governments seeking to maximize the use of ICT in 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 reporting and monitoring processes.

Australia provides 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 that ICT performs well whenever required.
- 5) Ensure that ICT conforms to all external regulations and complies with all internal policies and practices.
- 6) Ensure that ICT use respects human factors. Ensure that ICT meets the current and evolving needs of all of the people in the process.

Creating a decision-making hierarchy for ICT 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 (e.g. 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. Governments interested in developing systematic and sustainable monitoring and evaluation programmes (the third component of an ICT governance framework) should: Define key outcomes sought; Select key indicators of these outcomes; Collect baseline data; Select realistic targets for improvement in these indicators; Collect data over time to capture changes in indicators; Analyze whether targets are achieved and report findings; and, Evaluate implications for policy.

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.



Audience observes launch of “Academy of ICT Essentials for Government Leaders” and the National Workshop on ICT for Development Policy, Process and Governance in, Penom Penhm Cambodia, co-organised by UN-APCICT/ESCAP and the National Information Communications Technology Development Authority (NiDA) of Cambodia. (March 2010)

UN- APCICT / ESCAP

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.

<http://www.unapcict.org>

ESCAP

ESCAP is the regional development arm of the United Nations and serves as the main economic and social development centre for the United Nations in Asia and the Pacific. Its mandate is to foster cooperation between its 53 members and 9 associate members. ESCAP provides the strategic link between global and country-level programmes and issues. It supports Governments of countries in the region in consolidating regional positions and advocates regional approaches to meeting the region's unique socio-economic challenges in a globalizing world. The ESCAP office is located at Bangkok, Thailand.

<http://www.unescap.org>

The Academy of ICT Essentials for Government Leaders

(<http://www.unapcict.org/academy>)

The Academy is a comprehensive ICT for development training curriculum with eight initial modules that aims to equip policymakers with the essential knowledge and skills to fully leverage opportunities presented by ICTs to achieve national development goals and bridge the digital divide.

Module 1 - The Linkage between ICT Applications and Meaningful Development

Highlights key issues and decision points, from policy to implementation, in the use of ICTs for achieving the Millennium Development Goals.

Module 2 - ICT for Development Policy, Process and Governance

Focuses on ICTD policymaking and governance, and provides critical information about aspects of national policies, strategies and frameworks that promote ICTD.

Module 3 - e-Government Applications

Examines e-government concepts, principles and types of applications. It also discusses how an e-government system is built and identifies design considerations.

Module 4 - ICT Trends for Government Leaders

Provides insights into current trends in ICT and its future directions. It also looks at key technical and policy considerations when making decisions for ICTD.

Module 5 - Internet Governance

Discusses the ongoing development of international policies and procedures that govern the use and operation of the Internet.

Module 6 - Information Security and Privacy

Presents information security issues and trends, and the process of formulating an information security strategy.

Module 7 - ICT Project Management in Theory and Practice

Introduces project management concepts that are relevant to ICTD projects, including the methods, processes and project management disciplines commonly used.

Module 8 - Options for Funding ICT for Development

Explores funding options for ICTD and e-government projects. Public-private partnerships are highlighted as a particularly useful funding option in developing countries.

Module 9 - ICT for Disaster Risk Management

Module 10 - Climate change and ICT (to be launched in 2011)

APCICT Virtual Academy

(<http://e-learning.unapcict.org>)

- An online distance learning platform that brings Academy training to a wider audience.

Knowledge Management

- **e-Collaborative Hub** (e-Co Hub - <http://www.unapcict.org/ecohub>); A resources portal and knowledge sharing network for ICTD.
- **Digital Partnership Network** (DPN - http://www.unapcict.org/join_form); A collaborative ICTD network of academics, development practitioners and policymakers.

Research for ICT Human Capacity Building

- Analytical studies and cutting-edge research on ICTD and ICT human capacity building to provide support for making appropriate decisions on ICT policies and sharing of best practices.

Advisory Services

- Advice and support to partners for design, customization, localization and roll out of ICTD capacity building programmes.

Turning Today's Youth into Tomorrow's Leaders Programme

- Investing in and training the region's future leaders and workforce to develop sustainable ICT capacity.

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