

# Quickening e-Governance in Myanmar

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## CHANGE SWEEPS MYANMAR

Emerging in 2011 from decades of isolation, Myanmar is undergoing an economic, social, and political renovation. With a young population,<sup>1</sup> fertile lands, a plentiful endowment of natural resources,<sup>2</sup> and a strategic location in Southeast Asia,<sup>3</sup> its government can lay the foundations for a prosperous future.

The economic agenda is ambitious with immediate focus on growth and poverty reduction.<sup>4</sup> Notwithstanding fast progress,<sup>5</sup> however, much remains in the areas of macroeconomic policy, trade, investment, and small- and medium-sized enterprise development to complete the transition to a market economy.

The Asian Development Bank (ADB) reengaged Myanmar in 2012. Understandably, it targets inclusive growth, access and connectivity, and human and institutional capacities. The third thrust is at one with the need to enhance systemic development in core sectors, and of course underpins the first two; besides, a skilled workforce is necessary for sustained growth and poverty reduction.<sup>6</sup>

## ICT FOR DEVELOPMENT

Information and communication technology (ICT) powers new value chains and impacts entire industries. In view of that, the Ministry of Science and Technology is implementing an ICT master plan covering 2011–2015. This is the country's second such plan following that of 2005–2010, which helped raise Myanmar's telephone density from 1% to 5.4%—still very low, two-thirds of which from mobile lines.<sup>7</sup> The latest plan addresses much the same five areas as the first: ICT infrastructure, ICT industry, ICT human resource development, e-education, and ICT legislation. But, a key ingredient is missing: only 8,000–10,000 students graduate in computing-related degrees each year. Ways must be found to boost this number, just as the education system must be reformed to equip Myanmar's workforce with the ICT skills needed in the emerging global knowledge-based economy. Toward this, persistent gaps in access, quality and relevance, and system efficiency in ICT academic institutions must be addressed.

Beyond factor productivity, ICT can concretize e-governance initiatives for enhanced access to and delivery of (mostly web-based) government information and services. E-governance is a potent enabler of administrative performance by effective, transparent, and accountable institutions and encourages the participation of citizens—all essential if Myanmar is to assure a prosperous future.

<sup>1</sup> The median age of the population is 27.

<sup>2</sup> Myanmar is rich in minerals, including metal ores, oil, and natural gas, with significant deposits of precious and semiprecious stones. There are major deposits of coal, forests, and hydropower potential.

<sup>3</sup> At the crossroads of the People's Republic of China and India, Myanmar is a natural economic hub.

<sup>4</sup> A sizeable proportion of the population, or 25.6%, lives below the national poverty line.

<sup>5</sup> The government has launched an array of reforms touching the exchange rate; tax collection; monetary policy; public expenditure; business and investment; and the agriculture, financial, telecommunications, and trade sectors.

<sup>6</sup> Successful countries do not first become wealthy and then invest in human capital; they become wealthy by augmenting physical and human capital at the same time.

<sup>7</sup> Telephone density is the number of subscribed telephone connections for every hundred persons in an area. Neighboring Thailand has a teledensity of 134.

<sup>8</sup> The 2014 edition of the United Nations E-Government Survey ranked Myanmar 175 out of 193 countries. Thailand ranked 102 in the E-Government Development Index.

## Highlights

- Information and communication technology (ICT) can concretize e-governance initiatives for enhanced access to and delivery of government information and services but rests on ICT capacity, something Myanmar is short of.
- In 2013, the Asian Development Bank (ADB) partnered with the government to integrate approaches to development of government applications and online services and capacitate these with human and institutional capital.
- Field-testing of ADB's e-governance capacitation model opened avenues for sustaining the supply of skilled human resources in support of Myanmar's e-governance program.

In view of that, the government wants to streamline government-to-citizens (G2C), government-to-business (G2B), government-to-government (G2G), and government-to-employees (G2E) processes. An interministerial task force—headed by a senior minister in the Office of the President—has been established to ramp up administrative performance, beginning with electricity, investment, telecommunications, and trade. This is long-term work, as the indicative e-governance maturity model shown in Table 1 suggests.

**Table 1: Extension of e-Governance**

Governance	Description	Stage	
		Client & Service Perspective	Operation & Technology Perspective
Presenting	Display information in the information space.	Information	–
Assimilating	Blend processes and services in the information space with those in the real world.	Interaction	Integration
Reforming	Revise processes and services in the real world to match information space requirements, fitting for efficiency.	Transaction	Streamlining
Morphing	Change the shape and scope of processes and services in the information space and the real world, fitting for effectiveness.	Participation	Transformation
e-Governance	Manage processes and services in the information space and the real world synchronously, imbedding citizen-induced changes in reconfigurable processes and services.	Involvement	Process Management

Source: Compiled from Jungwoo Lee. 2010. 10 Year Retrospect on Stage Models of e-Government: A Qualitative Meta-Synthesis. *Government Information Quarterly*. Vol. 27(3), pp. 220–230.



**Table 2: Masterplanning ICT Capacity for e-Governance**

Output	Activities
e-Governance master plan and action items designed	<ul style="list-style-type: none"> <li>Assessing ministries for e-Governance service identification opportunity, delivery capacity, and infrastructure</li> <li>Mapping e-governance initiatives against assessed needs and priorities over the next five years</li> <li>Benchmarking assessments of needs and priorities against global good practices</li> <li>Identifying gaps and associated challenges and designing solutions</li> <li>Formulating sets of initiatives that Myanmar can undertake in the short term (1 year), midterm (3 years) and long term (5 years)</li> <li>Securing government acceptance and planning next steps</li> </ul>
Sustainability action plan for ICT capacity enhancements in identified ICT academic institutions developed	<ul style="list-style-type: none"> <li>Reviewing faculties and students in four ICT academic institutions to provide insights into (i) staffing, development, and performance assessment; and (ii) ICT curricula, student intake criteria, student socioeconomic and educational backgrounds, and employability</li> <li>Appraising pedagogies and curricula to collect specific information about undergraduate ICT-related programs offered by the four ICT academic institutions, such as program structure, breadth, depth of topics, accreditation, assessment methods, and industrial relevance</li> <li>Gauging collaboration between research and industry to examine the role of the institution in contributing to a greater body of knowledge. This component will look into the intensity of research in these institutions and level of engagement with the industry</li> <li>Examining ICT infrastructure to understand how the four ICT academic institutions deliver their undergraduate ICT programs</li> <li>Securing government acceptance and planning next steps</li> </ul>
Demonstration initiatives and knowledge transfer in identified ICT academic institutions developed	<ul style="list-style-type: none"> <li>Identifying demonstration initiatives in the four ICT academic institutions in line with their research</li> <li>Involving vendors and both faculty and student volunteers in demonstration initiatives</li> <li>Training faculty and students volunteers in maintaining the demonstration initiatives</li> <li>Handing over</li> </ul>

ICT = information and communication technology

Note: The institutions are Mandalay Technological University; University of Computer Studies, Mandalay; University of Technology (Yatanarpon Cyber City); and Yangon Technological University.

Source: ADB. 2013. Technical Assistance to the Republic of the Union of Myanmar for Design of e-Governance Master Plan and Review of Information and Communication Technology in Academic Institutions. Manila.

## E-GOVERNANCE RESTS ON ICT CAPACITY

Aggregate demand for e-governance is high and will assuredly rise further. But, the supply of skilled human resources to nurture and support e-governance initiatives is lagging. In 2013, in the context of the ICT master plan, the government asked ADB to formulate a multipronged technical assistance to integrate approaches to development of government applications and online services and capacitate these with human and institutional capital. Three outputs, detailed in Table 2, would conduce the outcome desired:

- An e-governance master plan and related action items;
- A sustainability action plan for ICT capacity enhancements in identified ICT academic institutions; and
- Demonstration initiatives and knowledge transfer in ICT academic institutions.

## ENABLING DIGITAL GOVERNMENT TO SERVE PEOPLE

ADB's assistance to Myanmar is timely; there is wide appreciation of how critical e-governance is to inclusive growth and poverty reduction; all stakeholders want to establish an e-government enabling environment and accelerate the take-up of applications that transform public services. Even so, ICT infrastructure is nascent and low ICT capacity threatens to curtail the country's ambitions. Here, therefore, the three mutually reinforcing outputs from ADB's assistance stand to make their signal methodological contribution to the desired outcome: unified planning and execution, capacity and capability building, and incentivized guidance for new G2C, G2B, G2G, and G2E systems and services can help Myanmar leapfrog stages of e-governance maturity. For instance:

- Masterplanning.** E-governance actions are being prioritized by the government. These actions flesh out an integrated e-governance framework for ministry-specific e-governance

application systems, common and shared ICT components across ministries, skills development, institutional strengthening, policy development, and countrywide e-governance organization.

- Enhancing.** The strategies considered include incorporating professional certifications into the undergraduate ICT curricula of the four universities covered, establishing incubation centers within the universities, and pursuing international accreditation and recognition. The curricula can also integrate training in contemporary ICT platforms and languages. Other actions for sustainability aim to tighten interactions with the local ICT industry.
- Demonstrating.** Speech recognition and speech biometrics in the human-computer interface discipline have been identified for demonstration in Yangon Technological University. Knowledge gained in voice-based technology can help populations where ICT usage and adoption are constrained.

By linking technological change, systems development, operational innovation, and organizational adaptation, the impact of ADB's assistance should be enhanced service delivery capacity and efficient public management of public services in the country. Already, there are exciting signs that ownership and synergies between government, academic institutions, and industry will advance the sustainability of that. What is more, the new e-government enabling environment should help channel and concentrate anticipated bilateral and multilateral development assistance in the ICT sector of Myanmar.

## Related Link

- ADB. 2013. Technical Assistance to the Republic of the Union of Myanmar for Design of e-Governance Master Plan and Review of Information and Communication Technology in Academic Institutions. Manila. Available: [www.adb.org/projects/documents/design-e-governance-master-plan-and-review-ict-capacity-academic-institutions-tar](http://www.adb.org/projects/documents/design-e-governance-master-plan-and-review-ict-capacity-academic-institutions-tar)

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