

# Policy Note 6

## Facilitating Open-Governance and a Digital Economy



Maldives  
Partnership  
Forum 2019

Investing in a Resilient & Sustainable Maldives

ICT is the backbone upon which public sector efficiency rests. It is a tool for innovation and migration from traditional industries to foster economic growth through technology driven enterprises. It is also the driving force behind evidence-based policymaking, which allows a Government to spend prudently on targeted interventions when it comes to key sectors for social development. According to an assessment carried out by International Media Support (IMS) in 2010 on the Maldives' digital communications environment, the Maldives has the highest e-government readiness in South Asia, a potential that remains largely untapped for various reasons.

The Maldives, while it has made progress in terms of incorporating required ICT infrastructure within the Government to aid service delivery, has fallen short of giving the required focus to the development of the ICT sector. While advancements in telecom infrastructure and internet connectivity has been rapidly achieved, the Government's first fibre optic network, interlinking government agencies in Male' and other islands was established in December of 2001, under a project funded by the Asian Development Bank (ADB). Initially 106 government offices were linked, of which 79 were directly connected via fibre optic cable and 27 via ADSL.

The Statistical Pocketbook of Maldives 2018 puts the total number of mobile subscribers in Maldives in 2017 at 900,120 with total internet subscriptions at 312,874. This is a significant increase from when Dhiraagu first introduced the internet to the Maldives in October of 2006, with dial-up connections for about 575 users according to a Readiness Assessment report from the International Telecommunication Union (ITU) in 2012. This indicates the high level of adaptation of technology and acceptance in the Maldives, which makes it ideal for a viable digital economy.

On 15th March 2003 the National Computer Centre (NCC) was renamed the National Centre for Information Technology (NCIT), the agency tasked with executing the Government's technology driven policies and to foster information technology in the country. NCIT has remained a key institution in this regard since then.

According to the National Centre for Information Technology (NCIT)'s 2016 annual report, the Government network, since its establishment in 2001, has expanded to connect 188 islands and 207 councils. In terms of e-government services, the Government E-Letter Management System (GEMS) and employment management system of the Civil Service (CS VIUGA) were the highest users of the Government network.

NCIT faces considerable challenges in terms of hiring and retention of qualified personnel in its service delivery, mainly hindered through the hiring practices under the civil service. As a result, NCIT has often opted to hire developers on a contract basis, which is unsustainable in the long-term. The lack of autonomy given to NCIT also plays a role in its service delivery issues and its reputation amongst other public sector agencies. Ad-hoc governance efforts under different political leaderships have also contributed in this regard. The establishment of a Ministry of Communication, Science and Technology in November

2018 by the current government, to provide dedicated governance of national Information Communication Technology and Electronic Governance, aims to provide a remedy to a number of these issues.

It is a key pledge of this Government to facilitate open data governance for public sector efficiency and accountability. Large scale intra-sectoral and cross-sectoral reforms are needed to usher in the changes that the Government believes are crucial to welcome a new era of development to the country.

### Key Challenges

#### Weaknesses in Security Infrastructure:

Maldives remains highly susceptible to attacks on its data and websites. According to the report published by ITU in 2012, Government servers are frequently under attack, but such incidents remain largely unreported. The report also highlights the Government's lack of preparedness in the event of a large scale cyber attack.

#### Lack of a Secure Digital ID:

Lack of a secure Digital Identity Card (DID) and digital signatures hinders establishment of data-driven systems for service efficiency within the public sector and beyond. A lot of key system development rests upon this digital identity, which is a key first step towards the use of ICT for service delivery.

#### Affordability of Internet:

Internet affordability remains a sore point amongst many Maldivians, which is denoted as a prerequisite and an enabler of a digital economy platform. With mobile data users in the Maldives having increased from 69,641 in 2012 to 266,957, which is a 283.33% increase, the Maldives has a high adaptation of technology and acceptance, ideal for large scale investments to foster a digital economy in the country. However, a digital economy cannot thrive without affordable and consistent internet access.

#### Governance Issues:

Isolated and bureaucratic nature of Government institutions hinders advancements in establishing a robust ICT infrastructure according to a paper published on Maldives Digital Economy. In order to increase public service efficiency through digitisation of Government's key services and to foster a digital economy, there is a need for closer inter-sectoral coordination for progress in key areas.

#### Lack of Capacity for ICT Driven Initiatives:

Maldives lacks a workforce that is equipped with knowledge of Science, Technology, Engineering, and Mathematics (STEM) skills. This hinders technological advancements and research to a great extent, weakening its ability to realizing larger development goals. The education sector is yet to make significant progress in terms of fostering interest and love for STEM subjects among students.

## Policy Initiatives

### **Lack of Initiatives to Nurture Digital Entrepreneurs:**

Maldives lacks initiatives to nurture digital entrepreneurs through provision of facilities/services such as technology parks and technology and innovation hubs. With the significant brain drain that has taken place in the Maldives with the local talent pool, preferring to be based overseas, there is a need for a concerted effort on the Government's part to entice locals to stay and innovate the sector within the country.

### **Lack of Uniformity in Data Management & Analytics:**

Lack of proper mechanisms and adoption of common methodologies and data formats across different platforms has meant that data analysis and use of big data is a challenge in the Maldives. The country has a long way to go in terms of investing in data structures that supports interoperability at the highest levels.

### **Weaknesses in the Legislative Framework:**

Legislative framework for ICT is an area seen to be weak in the Maldives. In this regard, there are no specific cyber laws enacted for consumer protection, which makes countering such crimes a challenge. While the Government's developmental agenda for the next five years hinges upon open data governance, there is a need to establish proper data protection regulations, while ensuring that they are kept updated and relevant with the changing times. This gap is noted in the report published by ITU in 2012. Another challenge faced in the Maldives is the use of pirated copies of software which is widespread in the country, which hinders ensuring the security of systems already in use. The report published by IMS in 2010 also denotes the lack of laws protecting the privacy and the lack of a data protection bill which are crucial pieces of legislature to garner trust amongst the public and service providers.

### **Ineffective Disaster Recovery Mechanisms:**

There exists a lack of properly coordinated disaster recovery mechanisms in the public sector, which could result in catastrophe if damages were incurred to critical national infrastructure which holds its own data systems in silos. A lot of key agencies such as the Department of National Registration (DNR), Maldives Immigration etc. prefer to host their own data-driven systems within their premises, which leads to the Government having to make redundant and costly investments in disaster recovery setups as required.

### **Cybersecurity Threats:**

The ITU report from 2012 notes that there is no proper mechanism to report cybercrimes in the Maldives, and that there is a lack of capacity to handle such crimes. According to the report, cybercrime in the country ranges from credit card fraud and phishing to various forms of unauthorised access, hacking and defacement, child abuse (via chat) and social networking websites. Fake SMS and SMS phishing is also reported to be widespread in the country. There is also the added threat of cyber-terrorism and cyber-warfare which remains a viable and emerging threats in the highly connected world which we live in today.

### **Overall Strategic Approach to ICT Development:**

Lack of an overall strategic and cohesive approach to ICT development is a factor that continues to hinder the sector's advancement. According to the assessment carried out by IMS in 2010, there is a lack of foresight and understanding in the Government's approach to the sector, which leads to large scale inefficiencies in the governance of the sector.

### **Modernising ICT Governance:**

The Government plans to establish a Chief Technology Officer (CTO) to drive Government's technological policies forward, while at the same time, seeking to grant NCIT the autonomy in service delivery through corporatisation of the institution. Strategies are also geared towards development and strengthening of the legal and regulatory framework for the sector, which includes enactment of data privacy laws. In order to retain the local talent pool within the country, the Government also seeks to foster strategic partnerships with global leaders in the technology industry with a view to establish technology hubs in the country. Furthermore, to address issues in a lacklustre security framework, strategies are focused on assessing status of cybersecurity in the Government agencies to take appropriate measures where required.

### **Establishing Digital Infrastructure for Efficiency:**

The Government seeks to establish a National Data Centre (NDC) which would work iteratively towards adopting optimal technologies to assist agencies in sharing and using their data for service delivery. Furthermore, strategies are in place to build a universal technology stack to ensure interoperability between public and private organisations in development of key information systems. In order to strengthen essential data which national systems will largely depend upon, Government seeks to commence implementation of a digital identity card and digital signature for authentication and validation purposes, which would in turn add value to data sharing and privacy issues which would undoubtedly arise with large scale connectivity of systems.

### **Modernising Government Services through Digital First Policy:**

The Government seeks to establish a Digital First policy for Electronic Governance development in the nation and introduce GOV.MV as a modern one-stop digital front desk to the government with the aim of making government and its services omni-channel, seamless, anytime, anywhere. Other initiatives include establishing a National Helpdesk as a single point of contact for citizens to seek services from the government in a timely manner, establishing coordination mechanisms to consolidate national data through the NDC, and strengthening the rollout of e-Admin and e-Council services being developed by NCIT through proper financial and technical support afforded to the institution.

### **Encouraging Digital Innovation:**

Strategies under this policy are geared towards creating a conducive environment for businesses to thrive in a digital economy. This includes ensuring interoperability and interconnectivity of important networks and platforms, exploring options to host multinational corporations in the Maldivian ICT industry, paving the way for convenient and cost-effective online payment gateways for online businesses, and facilitating investments in areas of ICT with a focus on Artificial Intelligence (AI) and machine learning.

### **Developing a Digital-Ready Workforce:**

Strategies are focused on building human capacity in the ICT industry. In line with this goal, the Government intends to incorporate more areas of STEM subjects in the national curriculum, conduct targeted training programs to encourage more female participation in the ICT field, and strengthen training and refresher programs for state agencies towards increasing the use of technological solutions in service delivery for efficiency. A key goal is ensuring affordable and quality internet services nationwide, to aid digitisation of services and establishment of the digital economy.

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