

**Symposium on “Implementing the 2030 Agenda for Sustainable Development and the SAMOA
Pathway in Small Island Developing States - SIDS:
Equipping Public Institutions and Mobilizing Partnerships”**

Think Piece 4¹

Mobilizing ICTs for delivering on the 2030 Agenda and the SAMOA Pathway

Introduction

Small states face geopolitical realities and socio-economic dependencies, along with prevalent development challenges such as the scarcity of resources, spatial segregation and barriers to major markets. Among the small states, the small island developing States (SIDS) are particularly vulnerable to climate change such as the rise in sea-level and large ocean-atmospheric interactions like typhoons and tsunamis. The SIDS Accelerated Modalities of Action [S.A.M.O.A.] Pathway, adopted by the General Assembly in 2014, recognized the enabling role of information communication technologies (ICTs) to sustain high levels of economic and social growth in SIDS². It also highlighted the importance to increase connectivity and enhance the use of ICTs through improved infrastructure, training and national legislation, as well as through partnership with the private sector and other stakeholders³.

Like other countries, in the adaptation and mitigation of climate change and sustainable development challenges, governments in SIDS have been and continue to be transformative in how they do business, including through mobilizing ICTs and digital services. Evidently, digital technologies and innovations are disrupting the public sector, just as they have in the private sector and impacting people’s everyday lives. Exploiting ICTs has far-reaching potential for SIDS, not just in improving processes and workflows for greater efficacy and effectiveness of public service delivery, but also in ensuring inclusion, participation and accountability to fulfil the motto of leaving no one behind. ICTs and e-government can also help mitigate the unique vulnerabilities in SIDS, such as building resilience to climate change, bringing distant learning and mobile health to remote island pockets, among other innovative applications.

Despite the much-reported benefits of ICTs, its development and adoption by SIDS in general have so far been limited. Reasons for this include lack of awareness of what ICT can offer, insufficient telecommunications infrastructure and Internet connectivity, expensive Internet access, absence of adequate legal and regulatory frameworks, shortage of requisite human capacity, failure to use local language and content, and lack of entrepreneurship and a business culture open to change. Among the SIDS, nine of which are nine least developed countries, some government agencies are not well informed or equipped to take full advantage of the digital opportunities. The average E-Government Development Index (EGDI) of the SIDS is 0.4093, which is below the global average of 0.4922⁴. The majority of SIDS has low-EGDI or middle-EGDI values. Except for Singapore which has a Very-High-EGDI

¹ This thinkpiece is prepared by UNDESA to guide Session IV on “Mobilizing ICTs including e-government for delivering on the 2030 Agenda and the SAMOA Pathway” at the Symposium, to be held on 21-23 February 2017, at the Bahamas. More information about the Symposium is available at https://publicadministration.un.org/bahamas_symposium.

Note: This paper may not be exhaustive or exclusive in illustrating concepts or cases related to the topics. For any question or comment, please contact kwok@un.org

² SIDS ACCELERATED MODALITIES OF ACTION [S.A.M.O.A.] Pathway, 1 September 2014. Para. 23

³ Ibid. para 111

⁴ United Nations, 2016 UN E-Government Survey 2016

and seven countries in SIDS that have High-EGDI values, 23 countries have Middle-EGDI and the remaining 6 countries have low EGDI values⁵.

In addition to the lack of ICT infrastructure and financial resources, SIDS suffer from a lack of technical experts and experience, as a result of brain-drain and gaps in the enabling environment. Policymakers may also feel ill-equipped in establishing and implementing digital strategies to help achieve development goals. SIDS's progress of 0.2879 in Online Service Index (OSI), and 0.2977 in Telecommunication Infrastructure Index, clearly trail development of their counterpart in other countries. The efforts to leverage on ICTs and digital services thus need to be strengthened as agreed at the Samoa Conference in 2014.

Access and connectivity to ICTs

Internet connectivity of small islands developing States has increased over the past years through submarine cables and satellites. In spite of this, only 4.3 out of 10 people in SIDS have access to the Internet, lower than the global average of 4.7. While wireless broadband is growing at a phenomenal rate, with penetration rate of 41% globally, it is only 30% in SIDS. Due to the geophysical reasons, fixed broadband is much lower at 11%. One positive note is that mobile phone subscriptions are high at close to 75% and some exceed 100% (Jamaica, Trinidad & Tobago, St. Kitts & Nevis) and the cost of mobile technologies are getting more affordable including those that directly contribute to the achievement of selected SDG Targets. In addition, there have been encouraging partnerships with the private sector and others in improving the access and connectivity of the SIDS. One example is the partnership initiative to develop low cost reliable satellite connectivity for development and emergency telecommunication in remote islands and rural areas⁶.

While Internet and broadband connectivity are critical first steps, further development of local content and online services is equally important, as recognised in the WSIS+10 Outcome Document⁷. Such content and services need to be in a variety of languages and formats that are accessible to all people, who also need the capabilities and capacities, including media, information and digital literacy skills, to make use of and further develop ICTs. This is in essence of the motto of the 2030 Agenda in leaving no one behind. Different channels of service delivery such as through post offices could be explored as these highly-trusted intermediaries that can act as "digital front offices" of the government, especially in reaching those left behind furthest.

Fulfilling SDG sectoral goals and targets through integrated digital service delivery

ICTs can help ensure equitable and effective public services for all, particularly in reaching out to those living in the most remote islands and the vulnerable groups. One emerging trend is digital identity, which is identified as the key to access of information, services and the right to development. The Prime Minister of Estonia emphasized that giving people a secure digital identity would be a first step towards

⁵ Note: Countries with low-EGDI: Guinea-Bissau, Papua New Guinea, Haiti, Comoros, Sao Tome and Principe, Solomon Islands; countries with middle-EGDI: Timor-Leste, Marshall Islands, Nauru, Tuvalu, Vanuatu, Micronesia (Federated States of), Kiribati, Cuba, Guyana, Belize, Samoa, Maldives, Saint Vincent and the Grenadines, Saint Lucia, Jamaica, Palau, Suriname, Dominica, Tonga, Cape Verde, Antigua and Barbuda, Dominican Republic, Fiji; countries with high-EGDI: Saint Kitts and Nevis, Bahamas, Grenada, Seychelles, Trinidad and Tobago, Mauritius, Barbados (Source: 2016 UN E-Government Survey)

⁶ SIDS Action Platform, "Addressing Connectivity for the Sustainable Development of SIDS",

<http://www.sids2014.org/index.php?page=view&type=1006&nr=2751&menu=1601&template=919>

⁷ United Nations General Assembly, Resolution 70/125, 1 February 2016

achieving the SDGs⁸. The Solomon Islands have taken bold steps in launching the Electronic Civil Registration Database System, replacing the previous paper-based system and guaranteeing a much more secure, centralized, reliable and transparent system of storing and maintaining records of birth registration (SDG Target 16.9). In the Caribbean region, St. Lucia, St. Vincent, Grenada and Dominica are working on a Multi-Purpose Identification System (MPID). The MPID system is intended to facilitate the use of a single card for voting, social security transactions, medical services, shopping, banking ,etc. in and among individual islands.

In sectoral development, there are many encouraging examples of digital service deployment for SDGs such as mobile health (m-health) and electronic learning (e-learning). In Fiji, a mobile health service called Dr. SMS allows users to directly communicate with doctors through short message text consultations. More advanced services could be rendered to citizens such as enabling face-to-face consultations with doctors. In Papua New Guinea, the SMS Story project enables one to send text messages containing stories and lesson plans to children and teachers in remote areas. The use of technology and innovation in government can also lead to a more holistic and multi-stakeholder approach, such as engaging people through social media and other e-participant means in budgeting and decision-making, which can help nurture a participatory and people-centric form of development, as enshrined in the 2030 Agenda.

Nevertheless, there is critical need for policymakers to leverage on the use of ICT to support integration and collaboration across public institutions and sectors. ICT can, for example, help bring government agencies closer together for example through easier sharing of data or information or through more integrated service delivery. This makes it all the more necessary to avoid silo approaches to ICT. An aligned digital strategy is needed to better integrate and coordinate efforts among different sectoral agencies to realize the SDGs. This also avoids duplication of ICT investment as financial resources are often limited in SIDS. In this regard, a whole-of-government assessment of digital needs in supporting the SDGs and the SAMOA Pathway could be a strategic step. Some integrated efforts are taking shape, for instance, the CARICOM aims to develop a single ICT space for better coordination and utilisation of resources.

Enabling environment, partnership and capacity development to bridge the digital divides

Many SIDS, however are faced with digital divides due to lack of ICT infrastructure, financial resources, technical experts and experience, which severely hindered the deployment of e-government and digital services. Some indigenous people in SIDS also lack the necessary ICT literacy and there is usually minimal content or online service in their native languages. Creating an enabling environment including the development of national capacities in mobilizing ICTs and e-government is of paramount importance. In particular, collaborative governance through ICTs, which enables close coordination and partnerships among different line ministries and active engagement of stakeholder groups like the private sector and civil society, holds the potential to address multiple challenges faced by SIDS. Pacific SIDS such as Fiji and Papua New Guinea have launched m-health services through public private partnerships.

Given the common challenges and strategic objectives, opportunities lie ahead in enhancing partnership as well as strengthening international and regional cooperation to make advances in leveraging ICTs for SDGs. Increased bilateral and multilateral collaboration among SIDS, and with other countries, could be

⁸ United Nations, Press Release, <http://www.un.org/press/en/2016/ecosoc6754.doc.htm>

beneficial for sharing knowledge about e-government development. It also helps in knowledge transfer, in which one leading country's best practices could be introduced and be replicated in other countries.

Many advances have made through collaborative efforts at the global level to promote the effective use of ICTs for sustainable development. For instance, various partnerships are facilitated by UN agencies and stakeholders of the World Summit on the Information Society (WSIS), in implementing the Action lines including C-7 applications on e-government, e-health, e-learning and others⁹. The role of partnerships was similarly highlighted at the first meeting of the multistakeholder forum on Science, Technology and Innovation for the SDGs (STI Forum). This is part of the mandated Technology Facilitation Mechanism of the 2030 Agenda. The expansion of existing partnerships and the launch of new partnerships with various international organizations, regional development banks, and individual developed countries are needed to mobilise financial and human resources for more strategic ICT and e-government development in the SIDS¹⁰.

ICTs in climate change mitigation and disaster risk reduction

The climate is already changing and impacting the growth and development of SIDS in many ways. SIDS are relatively more prone to natural disasters that could wipe out economic achievements overnight. Some SIDS areas even face an existential threat due to rising sea levels¹¹. There will be hefty costs for policy inaction. However, while climate change adaptation is necessary, there are limits, policy trade-offs and inherent risks. ICTs bring hope as SIDS and other countries are experimenting innovative means in disaster risk reduction and management through digital means. Several countries in PSIDS such as Fiji, Tonga, Samoa and among others, have adopted early warning and disaster management systems as part of their national e-government policy implementation. Many countries in CARICOM are moving towards implementing similar systems. ICTs also reduce vulnerabilities caused by threats to coastal and marine resources, such as through predictive analysis, water recycling and waste management. Effective and integrated disaster risk management should be established and further strengthened as part of the national development strategies of SIDS.

Moving forward

Many public sector leaders in SIDS believe in the potential of ICTS and would want to see digital changes accelerated in order to help support the implementation of the ambitious agenda of the 2030 Agenda and the SOMOA Pathway. However, many SIDS suffer from a lack of disaggregate data and vital statistics, a common issue shared globally. Disaggregate data and analytics are at the heart of digital services. Data should also be used for modelling and scenario planning through ICTs particularly on mitigating climate change. Bold strategies and policies could be adopted taking advantage of new technologies such as artificial intelligence, virtual and augmented reality, machine learning, the use of sensors, Internet of Things and block chains, mobile applications and other intelligent applications. Governments and other stakeholders need continue to push the boundless limits of innovation that are possible with ICTs and digital services, for example, in providing life-cycle public services to all citizens including those in living

⁹ United Nations, Action Lines and Facilitators of the World Summit on the Information Society, <https://publicadministration.un.org/wsis10/WSIS-Action-Lines-and-Facilitators>

¹⁰ United Nations General Assembly, 2030 Agenda for Sustainable Development. Para. 17.9 and 17.16

¹¹ 2015, "Small Island Developing States in Numbers – Climate Change Edition 2015", United Nations, Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS)

isolation or facing environmental barriers. We also need to consider the inherent risks of ICTs, such as hacking, denial of service and other cybersecurity and privacy issues. Considering unique challenges in mobilizing ICTs and e-government development in SIDS, it is important to develop tailored capacity training programme for individual countries. The effective use of ICTs to secure development objectives requires focused engagement and involvement of governments and civil society alongside the efforts of the private sector .Together with the academia, think tanks, the private sector and civil society, we need to be engaged in systems thinking in examining the linkages and interactions between different SDGs, Targets and enabling elements that could best leverage the potential of ICTs and e-government in delivering on the SDGs and the SAMOA Pathway.

Guiding Questions

Round table 1: Innovative ICT policies and strategies

1. For which SDG Targets and SAMOA commitments can ICTs best accelerate implementation?
2. What innovative policies and strategies have worked for deploying ICTs for SDGs?
3. How can governments mobilize the private sector, partnerships and cooperation for mobilizing ICTs including e-government for sustainable development?

Round table 2: Mobilizing resources and leaving no one behind

1. What lessons can be learned from past success and failure in making ICTs and digital services available to the poorest and the most vulnerable? How can we ensure that ICT helps combat inequality?
2. What are innovative approaches to build ICT infrastructure in SIDS?
3. What practical steps can governments and other stakeholders take to bridge the persistent digital divide?
4. How can SIDS tap on the Technology Facilitation Mechanism, as indicated by the 2030 Agenda? What support and funding sources can assist SIDS in fast-tracking their ICT needs?
