

Small island developing states (SIDS) and ICTs

Mid-term review of the Samoa Pathway



Executive Summary

Information and communication technologies (ICTs) can help mitigate many of the challenges affecting small island developing states (SIDS) and provide the foundation for digitizing and diversifying the economy. This is reflected in the Samoa Pathway report issued at the Third International Conference on Small Island Developing States held in Apia, Samoa, in September 2014:

“We recognize that access by Small Island Developing States to appropriate reliable, affordable, modern and environmentally sound technologies is critical to achieving their sustainable development objectives and in fostering an environment that provides incentives for innovation and entrepreneurship and that science, technology and innovation are essential enablers and drivers for sustainable development.”

SIDS have made progress in terms of the universality and affordability of their ICT networks since the 2014 Samoa conference. Mobile broadband coverage has risen from 50 per cent of the population to 85 per cent and the price of 500 megabits of mobile data has virtually halved, falling from 15 per cent of gross national income (GNI) per capita to 8 per cent. Improved connectivity has provided the foundation for boosting Internet take-up. The percentage of individuals using the Internet rose 16 percentage points between 2014 and 2018, from 40 to 56 per cent (unweighted average), and over half the SIDS have an Internet penetration rate of over 60 per cent. By 2021, five more SIDS will be connected to fibre-optic submarine cables, leaving just three unconnected from global undersea networks. As infrastructure expands and affordability improves in the SIDS, other factors such as digital skills and awareness are becoming more significant constraints to Internet take-up.

Overall, SIDS are largely on track to achieve universality and affordability targets for Internet access by 2020. According to current trends, mobile broadband coverage will reach almost 90 per cent of the population, the average price of a mobile data package will be around 5 per cent of per capita income and secondary school enrolment is projected to rise modestly to 72 per cent. Internet usage is predicted to rise to 59 per cent of the population by 2020, with future growth predicated on improvement in coverage, affordability and school enrolment.

Disruptive and transformative technologies and services, such as artificial intelligence (AI), blockchain, drones and mobile money, are being used to enhance sustainable development in SIDS. Their impacts have nevertheless been muted owing to largely limited application. Constraints include lack of technical, financial and human resources. There is a need to upgrade skills for applying digital technologies to development challenges and ensure better coordination between ICT specialists and different sectors of the economy. Digital technologies and applications, particularly social media, also pose risks, for example in terms of false information and misuse of personal information. Forward-thinking strategies, appropriate regulatory policies in areas such as data protection and regional cooperation to provide consistency and bargaining power when dealing with stakeholders are essential in order to anticipate and mitigate these dangers.

ICT is a major industry in virtually all the SIDS, generating direct and indirect economic impacts. The ICT sector tends to account for a higher share of gross domestic product (GDP) in small islands than in other countries. Telecommunication operators in the SIDS are often among the largest companies, contributing significantly to government tax revenues, and are leading sources of employment. The indirect economic impacts of ICTs are also significant, as shown by a number of recent studies.

SIDS nevertheless face various challenges that need to be overcome for a productive and sustainable ICT sector. Progress has been uneven and there is a major gap between the best-performing SIDS and

the others. Prices remain high in a number of SIDS and the use of digital technologies to contribute to sustainable development is lagging behind.

The key recommendations of the study include:

- The regulatory environment needs to be strengthened to promote a dynamic and sustainable ICT sector. Over half the SIDS are in the second generation of regulation¹ and facing difficulties confronting disruption to their ICT markets. In some SIDS, greater competition needs to be stimulated, while in others market attractiveness needs to be strengthened through transparent and flexible regulation; in addition, sufficient spectrum needs to be made available for wireless broadband, and operators diversification into new business lines such as mobile money should be considered.
- Fibre-optic connectivity via submarine cable is now or will soon be available in all but three SIDS. This has dramatically increased international bandwidth and the potential for the development of ICT-enabled services. Yet most SIDS have been slow to seize this opportunity and to foster digital entrepreneurship and innovation. Creating the conditions required to increase the use of ICT domestically and facilitate trade is vital in order to enable transformation to digital economies and reduce brain drain.
- Timely and relevant statistics are essential for policy-making and to monitor and fine-tune strategies. The availability of up-to-date ICT indicators in the SIDS varies. A few countries produce detailed sector-specific reports, some carry out annual surveys on household and individual ICT usage, while others include topics like Internet usage and household availability of digital devices in regular household surveys. The Eastern Caribbean Telecommunications Authority is notable for compiling supply-side telecommunication statistics for its five members. Most SIDS, however, collect ICT indicators sporadically, sometimes only as part of a decennial census. And in a handful of SIDS there are no official data for something as critical as Internet usage. It is imperative for SIDS to include ICT indicators in their national statistical systems.
- While SIDS share many characteristics, there are huge differences between them. This is apparent in ICT infrastructure, use and applications, where there are wide gaps. Some SIDS are far ahead, with advanced infrastructure and high levels of use, while others lag behind. Support should be tailored for these different groups. Where there is medium to high ICT take-up, the potential exists to incorporate more advanced digital technologies to tackle development challenges. For SIDS lagging behind in ICT, efforts are required to create an environment conducive to expanding network infrastructure and developing regulatory expertise. In all the SIDS, there is significant scope for making greater use of digital technologies for sustainable development in order to achieve the Sustainable Development Goals (SDGs).

¹ To help analyse the evolution of ICT regulation worldwide, ITU has developed the ICT Regulatory Tracker to identify and measure progress areas as well as gaps. Countries included in the Tracker are split into score thresholds that relate to generations of regulation, for any given year. The generations have been identified as: G1: Regulated public monopolies – command and control approach, G2: Basic reform – partial liberalization and privatization across the layers, G3: Enabling investment, innovation and access – dual focus on stimulating competition in service and content delivery, and consumer protection, and G4: Integrated regulation – led by economic and social policy goals. (<https://www.itu.int/net4/itu-d/irt/#/tracker-by-country/regulatory-tracker/2018>)

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