#OneSouthAsia Conversations

A World Bank series exploring ideas for regional cooperation
in economic connectivity, climate resilience, and human development #10

An intense tropical storm in 1999 caught the Indian state of Odisha by surprise, killing more than 10,000 people, and tearing down homes and public infrastructure. Over the next decade, the Odisha government invested in weather forecast data, early warning systems that used digital technologies, and disaster response measures. When another such cyclone hit in 2013, the state was better prepared with early response, reducing fatalities to 38.

This example illustrates one of the many ways digital technologies can transform lives and livelihoods by changing how people, businesses, and governments' function and interact. In South Asia, digital transformation is stirring growth across sectors, but the progress is uneven with emerging risks and challenges. How do we address these challenges to effectively tap digital opportunities, and create a robust digital economy, both at the country and regional level?

The 10th OneSouthAsia Conversation *Connecting across Borders: South Asia's Digital Opportunity ,* held on March 31, 2022, explored some of these questions with panelists from Bhutan, India, Nepal, and Sri Lanka. The conversation built on the key messages of a recent report, *South Asia's Digital Opportunity: Accelerating Growth, Transforming Lives,* which lays outs three core thematic areas for South Asia's digital approach: **prioritizing inclusion, strengthening institutions, and fostering trust in digital economy**. The

report recommends greater regional coordination in three priority areas: i) cross-border connectivity and data infrastructure, ii) an enabling environment for cross-border data flows, and iii) integrated cross-border payment systems.

Digital gaps

South Asia digital story is a paradox. While the region is brimming with opportunities, the gaps in digital access and usage are sobering. The region has the highest percentage— 61 percent[1]— of people living within the range of a broadband network, but who do not use the internet. Vivien Foster, chief economist for the World Bank's infrastructure vice-presidency, explained that the gaps are largely due to lack of affordable internet access and inadequate digital skills in the region. There are other dimensions of digital divides— gender, urban-rural, and intersectionality with other forms of marginalization.

Helani Galpaya, chief executive officer of Sri Lanka-based LIRNEasia, a digital policy research center, highlighted that lack of awareness and relevance of internet are additional factors that impact usage. "When we asked the unconnected why they do not use the internet, the top two responses were: I do not know what the internet is, and I do not know if I need it," said Galpaya, adding that COVID-19 addressed the salience issue to some extent. Largely driven by need during the pandemic lockdowns, over 130 million individuals in South Asia used the internet for the first time between 2020, and first two quarters of 2021, she added.

Digital identity as an enabler, but with protection

Digital identity is a key enabler to ensuring access, inclusion, and trust. Pramod Varma, the chief architect of *Aadhaar*, India's 12-digital unique identification number, shared that India's digital identity is the foundation for enabling ownership of individual data and access to benefit delivery systems, financial services, and markets, he added.

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[1] South Asia's Digital Opportunity: Accelerating Growth, Transforming Lives. 2022

Access and ownership aspects are complemented by trust. "While ensuring inclusion, we also made sure that the Data Empowerment and Protection Architecture (DEPA) falls into place. This framework outlines a techno-legal approach to individual data ownership in India," said Varma.

While South Asia countries are working on digital identities, only three out of the eight countries (India, Pakistan, and Sri Lanka) have made progress on setting up fully digital identity systems that enable secure authentication for online service delivery and transactions. [2]

Other countries are following up close. "Bhutan is developing a national digital identity system where we want to ensure that individuals have control over their own data," said Jigme Tenzing, who is the director for Bhutan's Information Technology and Telecom department. Bhutan also has the advantage to reflect on the lessons from neighboring countries that have already implemented digital identity systems, he added.

The benefits of digital identity and digitalization are not limited to a nation-wide approach but can be scaled to cross-border data flows, cross-border payments, and access to markets and service. "Before that happens, South Asian countries need to have their own techno-legal and institutional frameworks in place to ensure proper protection and trust," emphasized Varma.

Digital financial services

India's Unified Payment Interface (UPI) is a real time payment system that facilitates interbank peer-to-peer and peer-to-merchant payments. Varma highlighted that it is an open-source protocol and is available for free as a global public good.

"If any South Asian country adopts this architecture, and sets up a UPI switch at their end, it instantly becomes interoperable across countries that are using the same interface, helping quick cross-border payments and transactions," he explained.

Bhutan was the first country in the region to adopt the UPI architecture, followed by Nepal.

"Majority of trade for Bhutan is with India and ever since we have connected with India on the UPI initiative, the fees for transfer of funds have reduced, and convenience for people on both sides has enhanced," said Tenzing.

Cross-border infrastructure access

Land-locked countries like Nepal, and Bhutan have their share of challenges. Broadband costs are high, access is restricted and often is not as reliable. In Bhutan, internet users have increased from 73 percent in 2016 to 100 percent at present, but mostly via mobile devices and networks. "During COVID, we saw that mobile internet was not ideally suited to meet the requirements of home-based work, virtual classrooms, and in Bhutan the costs of broadband are high," explained Tenzin, adding that they are working with neighbors like Bangladesh and India on alternate broadband connections and to improve reliability of access.

In Nepal, despite limited broadband access, the pandemic forced a giant leap toward digitalization.

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[2] South Asia's Digital Opportunity: Accelerating Growth, Transforming Lives. 2022

"During the pandemic, fixed broadband access doubled, online payments soared by 400 percent, e-commerce quadrupled," said Sewa Pathak, chief executive officer of Vianet, an internet service provider in Nepal. The country's digital demands are on the rise, but internet access is still restricted due to high costs and reliance on neighbors.

"Stronger cross-border links with India could be instrumental in accelerating access and infrastructure," said Pathak, adding that some of Nepal's rural areas that had no digital access benefitted from India's heavy investments in telecom development in bordering northern states of Uttar Pradesh and Bihar.

Regional institutions and cooperation

Connectivity is one part of the problem. For stronger regional digital economy, South Asian countries need robust institutions, protection frameworks, and regulations. The European Union's General Data Protection Regulation (GDPR), which governs how personal data of individuals may be processed and transferred, is a good precedent for South Asia, but with its own challenges. "Implementation of these regulations requires data protection authority with the right skills, sufficient resources, and independence, which is a challenge for resource-constraint countries in South Asia," explained Galpaya.

But there is an opportunity to harmonize these regulations across all South Asian countries and pool legal-technical skills. This has double benefits: it will save resources and strengthen enforcement since countries can work as a bloc against powerful technology giants. While concerted government and policy actions could be slow moving, peer-to peer networks can facilitate these collaborations. Varma emphasized that institutions are not limited to the governments, but there are opensource foundations, non-profits, and network facilitating organizations that are playing a significant role in setting up collaborative efforts. Cecile Fruman, the World Bank's director of regional integration and engagement in South Asia, said robust institutions will require strong public-private partnerships, and should be able to convey the voices of the consumers and the industry.

> **SOUTH ASIA'S DIGITAL GAPS**
>
> - **South Asia has the highest percentage —61 %—** of people living within the range of a broadband network, but not using the Internet.
> - O**nly 3 of 8 countries** in South Asia have made some progress on setting up a fully digital identity systems that enable secure authentication for online service delivery & transactions.
> - **1 in 5 unbanked adults globally** lives in South Asia.
> - In India, **while 80% of the population has a financial account, less than 6% have used a mobile phone or the Internet to use it in the last year**.
> - In Bangladesh, women make up only **16 % of the total Information and Communication Technology workforce** in the country.
> - **4 of 8 South Asian countries** rank over 100 among the 185 countries assessed for the Global Cybersecurity Index, highlighting the need for improvement.

QUOTES

"While there are ongoing initiatives and engagements to coordinate on specific digital activities among countries in South Asia, there is huge potential to collaborate through regional institutions and groupings in ways that would unlock secure and seamless flows of money, data, and ideas."
Cecile Fruman
Director, Regional Integration and Engagement, South Asia, World Bank

"Countries across South Asia can do more to improve the legal safeguards that make the digital economy more secure for all, including protecting how personal data is collected and used. At the same time, the region, especially smaller countries, can benefit from more-open flows and sharing of data across borders, allowing innovation and trade to flourish."
Helani Galpaya
CEO, LIRNEAsia, Sri Lanka

"As a landlocked, sparsely populated country, taking public services to our citizens is extremely challenging and digital provides new opportunities. Bhutan has invested significantly in extending our domestic connectivity and fiber optic networks to all our districts and it covers 98 percent of our 'Gewogs'. To support this, having reliable and affordable connectivity to the internet is critical."
Jigme Tenzing
Director, Information Technology & Telecom, Bhutan

"Foundational digital identity is one of the key enablers of inclusion, trust, and equity in India. It empowers people to own their individual assets, data, and credentials and gives them access to financial and economic opportunities in addition to delivery of government benefits. For enabling equitable access to economic opportunities in the domains of commerce, mobility, and jobs, India is creating decentralized networks instead of centralized platforms via interoperable open protocols. These advances made in India are being replicated elsewhere in South Asia and India is ready to share its experience and technology."
Pramod Verma
Chief Architect, Aadhaar and India Stack

"Going forward, migration towards digital technologies will continue in the post-pandemic era and we will see more and more services coming online. New entrepreneurs will have global access to markets, and they can expand their audiences manifold with incremental costs, compared to offline models. To access markets in South Asia, laws and regulations need to evolve to allow for data and financial flows."
**Sewa Pathak**
CEO, Vianet Communications, Nepal

"Regional cooperation in Association of Southeast Asian Nations and European Union has been instrumental to developing thriving digital economies. Cooperation in South Asia is still nascent, but with the potential to draw lessons from other regions."
Vivien Foster
Chief Economist, Infrastructure Vice-Presidency, World Bank

MOBILE NETWORK COVERAGE AND USAGE GAPS BY COUNTRY

Legend: Connected | Usage Gap | Coverage Gap
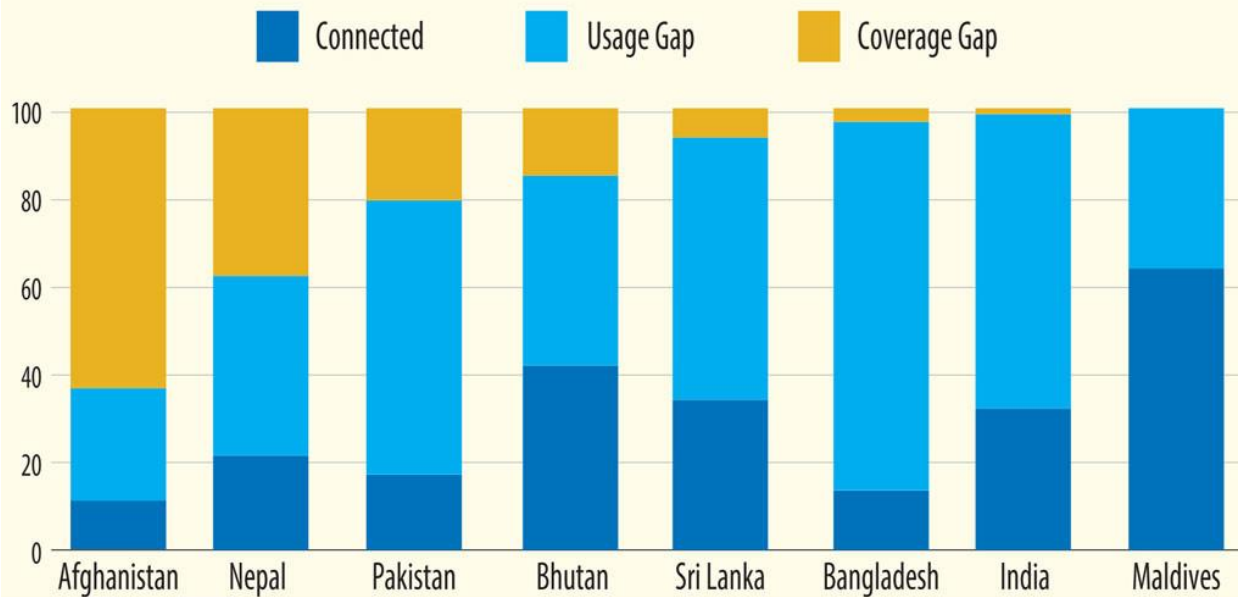
SOURCE: ITU 2020; CARBONI 2021

Source: South Asia's Digital Opportunity: Accelerating Growth, Transforming Lives. 2022