



# Enhancing Digital G2P Transfer Capacities in the Asian LDCs

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Nitin Madan and Alberto Isgut

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# Abstract

In response to the COVID-19 pandemic, globally, there has been a rapid scale up of Government-to-Person (G2P) payments, especially digital cash transfers via mobile money agents and e-wallets. Many least developed countries (LDCs) have relied on robust mobile money agent networks, and high levels of mobile connectivity and ownership which enable G2P transactions. Such transfers are particularly advantageous in emergency situations like the COVID-19 pandemic as they allow for digital payments to take place in situations of social distancing and lockdowns.

Digital payments can offer multiple benefits to various stakeholders, including governments, recipients, and service providers. Digital payments are a driver of financial inclusion, with payments often serving as a gateway to account ownerships and access to savings and loan products. Furthermore, evidence suggests that shifting government payments to digital platforms results in substantial government savings for cash transfer programmes. For example, in 2018, the Government of India estimated that using digital payments for social cash transfers resulted in savings of over \$12.7 billion (Pazarbasioglu and others, 2020). Many countries, including LDCs in Asia, have started to strengthen and improve their G2P cash transfer systems.

In response to the COVID-19 pandemic, 1,414 social protection measures have been either planned or implemented across 222 countries or territories as of December 2021. These included various social assistance, social insurance, and labor market measures. Social assistance measures constituted 55 per cent of such measures on average (in East Asia and Pacific, it is higher at 61 per cent and South Asia, it is at 70 per cent) and within that, 42 per cent were cash transfers (Gentilini and others, 2020). The capacity of countries to manage G2P transfers effectively as well as to ensure inclusion, especially of informal workers, has become more important in light of the use of cash transfers as a policy response to the pandemic. Lessons from the rapid scale-up of G2P systems in various countries suggest three building blocks for a system: a unique ID (preferably digital with biometrics), socio-economic databases that are linked to the unique ID, and a channel for digital delivery.

This paper reviews the three building blocks in eight Asian LDCs – Afghanistan, Bangladesh, Bhutan, Cambodia, the Lao People's Democratic Republic, Myanmar, Nepal, and Timor-Leste – and discusses measures that can enhance the capacity of these countries. It also looks at whether the reviewed LDCs offer any lessons for others in the region. The paper also reviews the regulatory frameworks for digital payments and digital delivery channels in the reviewed LDCs.

# 1 The state of G2P transfers in the Asian LDCs

Digital financial services (DFS) are widely acknowledged as a key ingredient for enhancing financial inclusion in an economy. Sahay and others (2020) show that when the “traditional banking sector is inefficient” or at a basic level of development, digital financial inclusion tends to be higher. Within DFS, digital payments are often the starting point for the introduction of other digital financial services. They also serve as an entry point into the formal financial system for the unbanked (Klapper and Singer, 2014; Madan, 2020; Sahay and others, 2020). In many LDCs, digital payments are driving the development of their DFS sector. This has been facilitated by the availability of expanded networks of basic mobile connectivity and a proliferation of mobile money agents.

The development trajectory and growth of digital payments can vary depending on whether it is G2P or peer-to-peer (P2P). While the decision to offer G2P payments can create an enabling regulatory environment in a nascent DFS market, the growth of digital payments in many African countries reveals that it is private sector P2P digital payment solutions that have paved the way (Gelb and Mukherjee, 2020).

The 2021 Global Findex data (table 1) reveals a low base of G2P social transfers in the Asian LDCs. Cambodia has the highest coverage at 21 per cent while Afghanistan has the lowest coverage at 2 per cent. The Lao People’s Democratic Republic is under 5 per cent, and Bangladesh, Myanmar, and Nepal have coverage ranging between 10 and 14 per cent.

**Table 1: Government Transfers in Selected LDCs (percentage of population age 15+)**

Country	Received government transfers in the past years		
	2014	2017	2021
Afghanistan	2	3	2
Bangladesh	2	6	10
Bhutan	2	NA	NA
Cambodia	3	5	21
Lao People’s Democratic Republic	NA	4	4
Myanmar	2	3	14
Nepal	7	10	14
Timor-Leste	NA	NA	NA

*Source:* ESCAP based on World Bank (2021).

*Note:* (1) Comparable data for Bhutan is only available for 2014, while data for Timor-Leste is not available for any year.

(2) Government transfers refer to personally receiving any financial support from the government in the past 12 months. This includes payments for educational or medical expenses, unemployment benefits, subsidy payments, or any kind of social benefits. It does not include a pension from the government, military, or public sector; wages; or any other payments related to work. The data includes transfers received in an account, in cash, or through a mobile phone.

Asia's LDCs have various types of social protection programs in place. These include a combination of social assistance (e.g. cash transfers), social insurance (e.g. paid leave), and labor market interventions (e.g. wage subsidies). They also relied on cash transfers extensively during the COVID-19 pandemic (Gentilini and others, 2020). According to World Bank data on fiscal responses to the pandemic, the coverage of social protection increased substantially during the pandemic (World Bank, 2020).

Table 2 shows the initial round of COVID-19 cash transfer responses. Many of the region's LDCs further expanded their cash transfer programs:<sup>1</sup>

- In November 2020, Afghanistan with support from the World Food Program announced plans to provide cash assistance to nearly three million families, over and above the seven million already receiving COVID-19 related support.
- In response to the pandemic, Bangladesh's cash transfer program was scaled up 163 per cent in terms of coverage by May 2020.
- Bhutan's cash transfer program (Druk Gyalpo's Relief Kidu) during COVID was a first for the

country. Its focus was to support returning migrants, and those whose livelihood was either lost or negatively impacted due to the pandemic.

- In Cambodia, the number of recipient households was expanded to 669,000 households by September 2020 as a result of a deliberate push by the government to update their social protection beneficiary list.
- In February 2021, the Lao People's Democratic Republic announced income support (cash transfer) for 17,000 garment factory workers in the country. Digital payments via mobile network operators would be piloted for this support.
- In April 2020, the Myanmar government launched the COVID-19 Economic Relief Plan that targeted cash transfers to 5.4 million households which was later expanded to 5.6 million households.
- Timor-Leste started the data collection process in April 2020. By June 2020, the country had identified the list of households (nearly universal) that qualified for the cash transfers.

**Table 2: Coverage of COVID-19 related cash transfers – initial round**

Country/ Population	Households targeted	Individuals targeted	Share of the population
Bangladesh	5,000,000	24,710,691	15%
Bhutan	23,000	115,000	15%
Cambodia	610,000	2,806,000	17%
Lao People's Democratic Republic	270,000	1,350,000	19%
Myanmar	5,400,000	22,680,000	42%
Timor-Leste	73,328	393,071	31%

Source: ESCAP based on World Bank (2020).

Note: Data is as of 28 August 2020 for countries that had identified specific cash transfer beneficiaries.

<sup>1</sup> For an updated (as of February 2022) list of the various social protection measures globally see the World Bank paper Social Protection and Jobs Response to COVID-19:

A Real-Time Review of Country Measures (Gentilini and others, 2020). See also ILO (2021), Markhof (2020), ESCAP (2021b) and World Food Programme (2020a; 2020b).

Nepal is the only country amongst the reviewed LDCs that had not deployed direct G2P as a response to COVID-19 till December 2020, except for an extension (additional locations) of an existing child grant social protection program.<sup>2</sup> In its response to the pandemic, the country has implemented public-works projects for unemployed informal workers, subsidized electricity, and food packages amongst other programs. Cash transfers (in conjunction with non-government organizations) had been considered in 2020 as a response to the pandemic; however, given the lockdown in place, the government preferred to distribute goods via local governments.<sup>3</sup>

Before the pandemic, Nepal's social protection base was considered low as the country allocated an equivalent of 3.5 per cent of the gross domestic product for social protection (Ghimire, 2019). With its 2015 constitution enshrining social protection as an enforceable right, the Social Security Act in 2018 instituted various social protection programs, including government pensions, an allowance for senior citizens, and targeted support for groups including single women, widows, and persons with disabilities. These transfers are conducted via banks and decentralized through local governments, which often lack digitalized databases.

<sup>2</sup> As of December 2020 and based on World Bank data (Gentilini and others, 2020).

<sup>3</sup> For more details see: Franciscon and Arruda (2020), Shrestha (2020a), and Shrestha (2020b).

## 2. Building blocks of an efficient G2P system

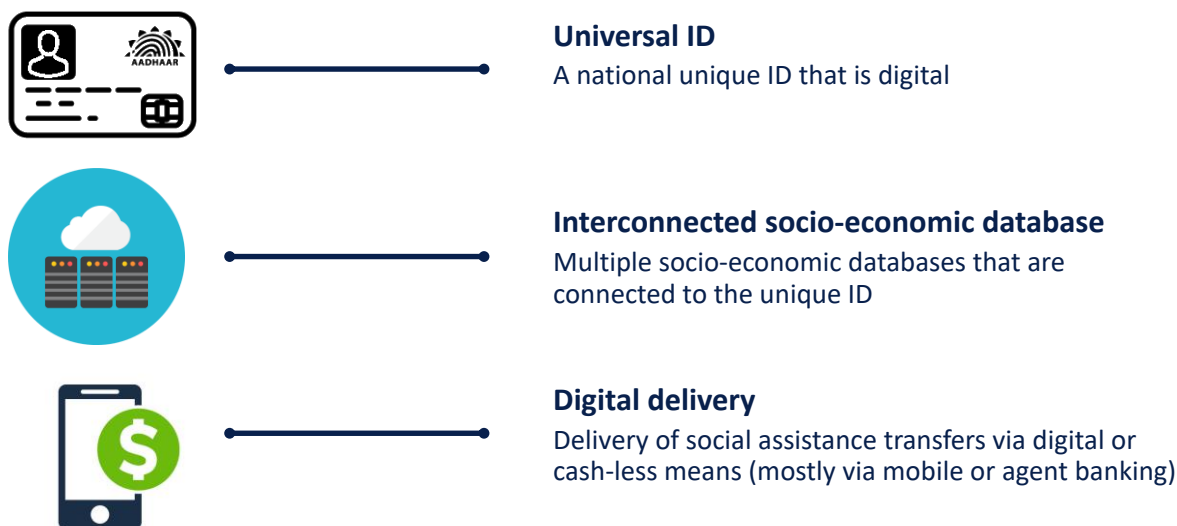
During the COVID-19 pandemic, several countries, including many LDCs in Asia, rapidly scaled up their digital G2P payment systems.<sup>4</sup> G2P allowed for a swift delivery of social assistance to vulnerable populations under conditions of social distancing and lockdowns, and due to the uptake of these services, many countries are likely to continue to use G2P systems in the future. The rapid scale up of G2P has resulted in many lessons related to building effective G2P systems, particularly for the swift delivery of cash transfers.

Prady (2020) shows that expanding G2P outreach offers lessons related to three building blocks for an efficient and inclusive G2P system. Figure 1

presents an illustration of the building blocks.

The universal government ID building block helps to ensure that coverage is adequate as those without an ID may be excluded. Connecting these IDs to socio-economic databases (e.g. social benefit transfers data, income records) is the second critical block. This enables “governments to better target resources to more vulnerable social groups” (Prady, 2020). The third block is a mode of digital delivery like mobile phones that mitigate the need for physical cash deliveries which is especially crucial given the limitations of social distancing and lockdown as has happened during the COVID-19 pandemic.<sup>5</sup>

**Figure 1: The building blocks of an efficient G2P system**



*Source:* ESCAP.

*Note:* The universal ID in the figure is understood to be a universal government ID.

<sup>4</sup> Digital G2P payment system is henceforth referred to as G2P.

<sup>5</sup> The three building blocks described in this section focus on the delivery of government digital cash transfers. To be

sure, other key elements that need to be in place for these transfers to take place, including a good mobile network coverage, a robust DFS agent network for cash-in and cash-out services, and digital and financial literacy. The first two of these elements are discussed in Section 3 and the third one is discussed in Section 4.

India is a good example of a country that has developed these building blocks to deliver social

assistance relatively effectively, resulting in savings for the exchequer (see box 1).

### BOX 1: India – Delivering social transfers via “JAM Trinity”

India created the JAM Trinity intending to combine, universalize and digitize various social protection schemes in the country. JAM refers to:

- J - *Jan Dhan Yojana*: a savings bank account
- A - Aadhar: biometric authenticated unique Identification
- M - Mobile – to help increase outreach

Apart from this, the trinity is also meant to reduce system leakages (e.g. corruption) and help bring down the costs related to social protection programs in the country. These three pillars have helped India with the building blocks.

The “J” in the JAM Trinity is a financial inclusion program that started in 2014 and, in three years, resulted in 85 per cent of the country being covered with a bank account, up from 56 per cent. Aadhaar or “A” is an identification system that provides a unique foundational ID to each citizen. It is complemented by biometrics (fingerprint and iris scan) and now covers nearly all citizens. The last pillar – “M” refers to the mobile phone and network used as a delivery platform.

All these three pillars have been integrated since their launch. Aadhaar is linked with a database of social protection beneficiaries under numerous social protection programs and the tax database, allowing the direct transfer of funds to social protection beneficiaries. As an example, the *Pradhan Mantri Jan-Dhan Yojana* (PMJDY) program encourages financial inclusion through enabling access to banking services. In response to the pandemic, women holding PMJDY accounts,

which represent over 55 per cent of the total, were transferred a monthly payment of Rs 500 between April and June 2020. These payments reached an estimated 204 million women, identified through the Aadhaar digital ID program’s sex-disaggregated data. In addition, financial service providers and mobile phone companies can use the Aadhaar system to perform Know Your Customer (KYC) due diligence.

The JAM Trinity is an example of linkages between the three building blocks wherein the universal ID system gets linked to socio-economic data, and mode of delivery. The absence of these can pose challenges:

- The lack of a universal government ID may exclude some segments of the population.
- In the absence of integrated socio-economic databases, some households may receive benefits multiple times and the targeting may be inefficient, with some transfers leaking to non-vulnerable groups.
- The lack of a cashless delivery system (e.g. mobile money) may impede the swift delivery of support, which is especially important during lockdowns and social distancing requirements and nullify efforts to stem corruption.

In the fiscal year 2019-2020, India registered more than one billion transactions under its direct benefits transfer program, amounting to \$38 billion. Given this preparedness, the government was able to provide cash transfer support to nearly 65 million women during the initial days of the pandemic, and these transfers were completed in five days.

Source: Prady, Delphine (2020), MicroSave Consulting (2020a; 2020b), Gentilini and others (2020).

# 3. Enhancing the capacity of G2P systems

## 3.1. MOBILE COVERAGE, AGENTS AND REGULATORY FRAMEWORKS

According to the Global System for Mobile Communications Association (GSMA), in 2019 the East Asia and the Pacific region witnessed the most significant growth in usage of mobile money with nearly a 30 per cent increase in active accounts, a 53 per cent increase in transaction volume and a 41.5 per cent increase in transaction value in one year (Naghavi, 2020).

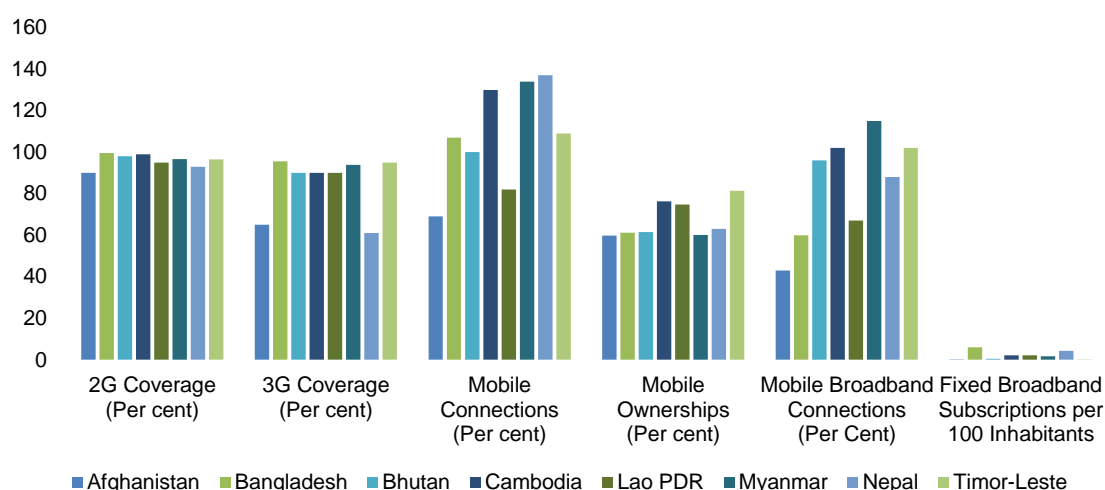
Across Asia's LDCs, GSMA data (figure 2) reveals a reasonable degree of mobile connectivity, with over 80 per cent of the population covered by a 2G connection and high 3G coverage.

As discussed earlier, many countries have rapidly

scaled up their COVID-19 related social assistance programs by relying on digital means. Mobile money transfers have been widely used due to the need for social distancing and resultant lockdowns.<sup>6</sup> The scale up was possible due to the vast mobile money networks that were already present in most countries along with the proliferation of agents. The use of agents is especially important because, as figure 2 shows, mobile phone ownership varies between 60 per cent and 80 per cent of the population and mobile broadband coverage is below 60 per cent, except in Bhutan, Cambodia, and Myanmar.

The Financial Access Survey (IMF, 2021) data for the reviewed LDCs (table 3) reveals a significantly higher presence of agent access points compared to bank branches and ATMs across all countries

**Figure 2: Mobile coverage and ownership in the Asian LDCs as of 2021**



Source: ESCAP based on data from GSMA (2021) and ITU (2021).

Agents increase access because they ameliorate several disadvantages that a G2P recipient might

face, including not having a bank account or a mobile wallet, low digital skills, or only access to

other means.

<sup>6</sup> Other channels include cash, cash cards, and money order. See commentary on this in Davidovis and others (2020) for advantages of using mobile transfers over

feature phones. In all cases, agent access points can be used to cash out social transfers. Cambodia has successfully implemented this model wherein G2P recipients provide their national ID and mobile number to a Payment Service Provider (PSP) and are notified by an SMS to collect the

money from the nearest designated PSP agent. Like Cambodia, the Lao People's Democratic Republic, Timor-Leste, and Myanmar relied on their vast PSP and mobile network agent for cash transfers.

**Table 3: Mobile money agents are significant compared to ATMs and bank branches in Asia's LDCs**

Country/ Indicator	Year	Active mobile money agents	Active mobile money agents/ 100,000 adults	ATM	ATMs/ 100,000 adults	Bank branches	Bank branches/ 100,000 adults
Afghanistan	2015	1,534	8.08	174	0.91	395	2.16
	2019	2,151	9.82	359	1.64	398	1.87
	2021	NA	NA	NA	NA	NA	NA
Bangladesh	2015	243,042	219.93	7,839	7.09	9,458	8.60
	2019	415,745	350.32	11,178	9.39	10,621	8.99
	2021	509,793	415.99	14,031	11.44	10,939	8.97
Bhutan	2015	NA	NA	152	28.75	82	16.45
	2019	NA	NA	274	48.09	105	19.30
	2021	NA	NA	266	45.20	118	20.90
Cambodia	2015	3,629	34.18	1,416	13.33	614	6.12
	2019	41,155	362.30	2,644	23.27	896	8.30
	2021	46,278	394.04	3,712	31.60	1,400	12.38
Lao People's Democratic Republic	2015	NA	NA	1,028	22.97	89	2.90
	2019	*14,640	NA	1,305	26.88	112	3.21
	2021	NA	NA	1,416	28.06	114	3.13
Myanmar	2015	767	2.01	743	1.95	1,252	3.35
	2019	57,221	142.93	2,748	6.86	2,203	5.60
	2021	NA	NA	NA	NA	NA	NA
Nepal	2015	NA	NA	1,721	9.55	1,672	9.45
	2019	58,991	292.77	3,316	16.45	3,557	17.79
	2021	138,436	648.53	4,325	20.26	4,726	22.26
Timor-Leste	2015	NA	NA	48	6.63	32	4.97
	2019	689	84.96	72	8.87	45	6.16
	2021	NA	NA	NA	NA	NA	NA

Source: ESCAP based on data from IMF (2021) and ESCAP (2021a).

Note: \* The Lao People's Democratic Republic figure is as of August 2020.

Geographic penetration and socio-cultural context are relevant for access to agents. In Afghanistan, for example, the network of ATMs and PoS terminals is concentrated in large cities, agent liquidity is an issue, and the use of female agents remains important for uptake by women (Da Afghanistan Bank, 2019b). Similarly, in Nepal, the Branchless Banking agent network penetration is skewed to more urban and peri-urban municipalities, though under the Sakcham initiative, an effort has been made to increase the number of agents in rural areas and ensure adequate agent liquidity (Louis Berger Group, 2020).<sup>7</sup>

While agent access and mobile connectivity are essential, regulatory frameworks related to these aspects are critical enablers. Over time, the Asian LDCs have put in place various regulatory mechanisms - such as clearinghouses, payment switch and real-time transfer mechanisms - for digital payments and transfers. (see the appendix for a summary of the regulatory landscape.) While frameworks have progressively improved, implementation challenges, especially those related to interoperability, remain. Interoperability gives a G2P recipient more choice of providers and access points and results in financial service providers and PSPs viewing the recipient, rather than the government, as a customer (Baur-Yazbeck, 2019). Lack of interoperability is costly to clients. For example, in Bangladesh, to collect their Old Age Allowances, recipients have to travel an average of three hours to designated collection points and spend an average of 23 per cent of their allowance

on this. There is also a risk of theft during the return home or the cash out may not happen for various technological or human reasons (Baur-Yazbeck, 2019).

Interoperability is limited, and where transfer systems such as Real Time Gross Settlements (RTGS) and Fast and Secure Transfer (FAST) are in place, their adoption by financial service providers (FSP) for retail payments has been slow. In Afghanistan, Bangladesh, Cambodia, Myanmar and Nepal, interoperability is achieved largely through bilateral agreements between FSPs or by relying on private sector service providers who offer a platform. These collaborations have included select banks but have to an extent left out PSPs and microfinance institutions. In Bhutan, interbank operability is functional, but this leaves out non-bank financial service providers. Similar is the case in Timor-Leste, though Fintech's with e-wallets are part of the system. In the Lao People's Democratic Republic, the uptake has been slow and G2P transactions can only be done via the mobile wallets of specific providers.<sup>8</sup>

FSPs have to provide their customers with the necessary interface that facilitates interoperability, but most FSPs (especially small and medium-sized) are unwilling or financially unable to invest in these systems (National Bank of Cambodia, 2020).<sup>9</sup> This inhibits connecting to automated transfer systems. Cambodia's national bank has tried to circumvent some of these issues with the creation of a blockchain-based mobile app solution called *Bakong* (box 2).

<sup>7</sup> The Sakcham initiative is a UKaid funded initiative that is aimed at increasing access to finance for SMEs, strengthening capacities of MFIs to provide services in remote-rural districts, and improving financial capability of enterprises and households in priority districts. For more details, please visit: <https://sakcham.com.np/>.

<sup>8</sup> See the Appendix for specific details on status of interoperability in the Asian LDCs.

<sup>9</sup> Many FSPs have legacy banking systems that need to be modernized, while others are afraid about the potential leakage of their client data with competitors.

## BOX 2: National Bank of Cambodia's (NBC) *Bakong* initiative

*Bakong* is a mobile application using blockchain in the backend that enables FSPs with existing mobile applications to integrate their backends via an open application programming interface (API). Such a system is expected to eliminate the need for FSPs to develop their digital customer interface, thus

lowering costs, facilitating interoperability, allowing for digital transfers across FSPs in Cambodia and internationally and increasing security. NBC expects that this project will further financial inclusion in Cambodia.

Source: ESCAP (2021b).

Across the Asian LDCs, there is a need to improve interoperability – not only between banks, but between various types of providers such as PSPs and microfinance institutions. Evidence suggests that providing choice to customers has a positive impact by freeing up time and travel expenses. In Zambia, beneficiaries of the Girl's Education and Women's Empowerment and Livelihoods project were allowed to cash out transfers from six different financial service providers. The average time spent on accessing payments was reduced from six to two hours and 82 per cent of the recipients stated that they did not spend any money on travel compared to earlier. Given a choice, recipients also managed to lower the cash-out fee. Vulnerable and discriminated groups also benefitted from the choice as they were able to choose how best to receive funds – mobile wallets, bank accounts, or debit cards (Baur-Yazbeck and Hobson, 2021). Having more choice builds confidence and this, in turn, builds trust in the G2P system (Baur-Yazbeck, Chen and Roest, 2019).

Demand-side trust is very critical for the uptake of digital payments and transfers. Apart from choice, the consumer protection framework, particularly grievance redressal in the case of G2P is essential for fostering trust. In the Asian LDCs, there are

consumer protection laws that apply to financial services. The details of these laws and related policies in terms of laying the grievance redressal mechanism vary by country.

All the Asian LDCs require that FSPs have a grievance redressal mechanism system and put the onus of grievance redressal on the PSPs or FSPs for dispute settlement. Afghanistan, Cambodia, Myanmar, Nepal, and Timor-Leste require mechanisms to be in place, but details of the mechanisms have not been made clear. Regulations in Bangladesh and the Lao People's Democratic Republic include more requirements, such as prescribing the number and type of grievance redressal mechanisms to be made available to customers and complaint handling time. It is unclear how effective the current systems are in the above-mentioned countries, although some country strategies or central bank documents (for example, in Afghanistan, Myanmar, and Timor-Leste) identify this as an area for further improvement. Bhutan set out the most detailed complaints handling and redressal policy in 2019, but its effectiveness is not yet known. It offers a good example of what constitutes a robust grievance redressal policy. The Appendix provides the details, but the policy is summarized in box 3.<sup>10</sup>

10 Various references: Banco Central De Timor-Leste (2015; 2017; n.d.), Bangladesh Bank (2018), Central Bank of Myanmar (2020), Da Afghanistan Bank (2019a;

2019b; 2020), Royal Monetary Authority of Bhutan (2019), ESCAP (2021b), Bank of Lao People's Democratic Republic (2017).

### BOX 3: Bhutan's complaint handling and redressal mechanism

The Royal Monetary Authority of Bhutan has an elaborate and comprehensive policy on how financial service providers should handle complaints. The main features of this include:

- Each provider has to set up a consumer protection cell
- There need to be multiple channels via which consumers can file complaints
- Providers need to communicate the specifics

of the channels to clients

- The policy details the management of complaints received (including time taken for redressal and escalation)
- The staff of providers needs to be trained on consumer protection rules as well as complaint handling
- Providers have to maintain evidence of complaints resolved.

Source: Royal Monetary Authority of Bhutan (2019).

### 3.2. ADEQUATE ID COVERAGE, BUT LIMITED UNIQUE NATIONAL DIGITIZED BIOMETRIC IDS

Without a national ID, people are likely to be excluded from social transfer programs. This is particularly the case with women, ethnic minorities and informal sector workers. There is a correlation between an ID, a mobile connection and access to the payments systems. It is more likely that people without an ID will also not have access to the other two. A digitized national ID allows for connecting a citizen across numerous social databases or registries, which in turn ensures that G2P transfers are done correctly. Identifying and verifying eligibility is key to ensuring an effective and inclusive transfer system.

The example of Aadhaar in box 1 illustrates the potential of a national ID system that is digitized along with biometrics. World Bank (2018b) data on national identification reveals that amongst the Asian LDCs, only Afghanistan, Bangladesh, Bhutan, Cambodia, and Nepal are collecting biometrics as part of the national ID process. In the Lao People's Democratic Republic, the national ID is digital, but in Myanmar and Timor-Leste, the ID is non-digital. Table 4 reveals that Cambodia and the Lao People's Democratic Republic have the highest rates of registered populations. This is followed by Bhutan, Nepal, and Timor-Leste where coverage is near or over 75% of the population. Afghanistan, Bangladesh, and Myanmar have a relatively larger (over a third) unregistered population segment (World Bank, 2018b).

Table 4: ID coverage across the Asian LDCs

Country	Unregistered population (per cent)	Unregistered population that is female (per cent)
Afghanistan	33	55
Bangladesh	32	NA
Bhutan	22	36
Cambodia	14	NA
Lao People's Democratic Republic	17	NA
Myanmar	32	NA
Nepal	26	58
Timor-Leste	22	NA

Source: ESCAP based on World Bank (2018b).

Data on the percentage of unregistered women is not available for a majority of the reviewed LDCs; however, for Afghanistan, Nepal, and Bhutan, the numbers reveal that a large proportion of those unregistered are women, especially for the former two countries (table 4).

High rates of registration do not translate into an effective and unique ID system. In the Lao People's Democratic Republic, for example, about 25 per cent of the population have a National ID issued by the Ministry of Home Affairs while the Family Book, managed by the Ministry of Public Security, is most common. There are several issues with the Family Book, including it being handwritten and duplicate numbering (ESCAP, 2021a). While the Lao People's Democratic Republic has a digital ID system, its coverage is unclear, but is likely to be low given that the reform process of the ID system began recently and that the country was piloting the digitized foundational ID system in 2019 (GSMA, 2019). In Cambodia, the digitized foundation ID system was piloted in 2019. This implies that in both LDCs, the digital ID system is not fully integrated to realize its full potential for e-government services including G2P.

Under a World Bank funded project, in 2011, Bangladesh began to establish a national ID system that was aimed at integrating national IDs with public and private services. The card is used to access various public (passports application, tax identification) and private (mobile SIM, financial services) services. Under the project, biometrics were collected, and an estimated 80 million Bangladeshis were covered towards the end of 2018 (World Bank, 2018a). This is likely to have increased to 110 million as of August 2020 (The Daily Star, 2020). However, the full potential of the card has not been realized. The system is managed by the election commission for voter ID purpose. This results in a lack of access to the data by relevant public and private institutions as its use has been based on ad hoc agreements with the commission (Baur-Yazbeck and Roest, 2019; The Daily Star, 2020).

Timor-Leste decreed in 2004 that all citizens would be provided with a national ID. The birth certificate was provided to citizens which acted as a proxy national ID. In 2018, the government launched an initiative to issue national IDs to all citizens and in late 2020 and again in early 2021, efforts began to lay the framework and implement a unique digital ID for all Timorese citizens (Government of Timor-Leste, 2018; 2020; 2021).

Myanmar and Afghanistan as well have begun the process of replacing their paper-based ID cards with digitized biometric cards. Myanmar's National Economic Policy identifies digital ID as a priority, and it began the process of digitizing along with biometrics in 2017. Afghanistan sought to replace its paper ID card system in 2018 with the launch of electronic citizen ID cards called "*e-Tazkira*" (Gul, 2018). In Bhutan, the process of digitizing is currently ongoing.

An opportunity for improving beneficiary identification in areas with low national ID penetration may be offered by the vast network of mobile money and mobile network operators via their agents. The LDCs reviewed have a high penetration of agents (table 3). Their KYC process for a SIM or a mobile money account requires simple due diligence that involves submitting a valid ID (e.g. national ID, voter ID, birth certificates) issued by a government entity. This network and the compliance process can become the base for identifying and verifying potential beneficiaries. In the case of Myanmar, for example, mobile phone penetration is relatively high and it is likely to be higher in urban areas which normally have a large share of the informal sector workers in occupations that have been most likely severely impacted by lockdowns and social distancing (e.g. domestic workers, tuk-tuk/taxi drives, vegetable vendors, restaurants on push carts). The country's 2017 census survey revealed that on average over 80 per cent of informal sector workers across various sectors owned a mobile phone (World Bank, 2020). Correlating mobile penetration rates and usage patterns with rapidly conducted sample surveys (possibly done using mobile phones) to estimate impacts on

households, business/employment and consumption may provide an estimate of the poverty/economic status (World Bank, 2020).<sup>11</sup>

### 3.3. DEVISING ALTERNATE MECHANISMS TO REPLACE INTER-CONNECTED UNIQUE IDs AND SOCIO-ECONOMIC DATABASES

During the early months of the COVID-19 pandemic (June 2020), over 100 countries had plans to expand or had already expanded their cash transfer coverage. All the LDCs reviewed followed a combination of either expanding their existing programs or creating new ones. Determining eligibility has been and remains a challenge especially given the combination of social distancing and lockdowns, large sections of unaccounted informal workers and challenging socio-cultural contexts (such as gender inequality). A core lesson that has emerged from the expansion efforts is that countries with a universal unique ID connected to the socio-economic database(s) can ensure quicker, more effective, and more inclusive delivery of G2P cash transfers, which is especially important in emergencies. Box 1 above provides the example of India, which shows that transfers can be made quickly, and gaps can be identified with an interconnected system.

India's example shows the benefits of connecting a universal unique ID to socio-economic databases. Countries without such level of centralization and interconnectedness – such as all the Asian LDCs – have multiple IDs and lack a ubiquitous foundational ID like the Aadhaar, have multiple databases that may not use the same IDs (e.g. birth certificates or driving license or national insurance cards or voter IDs), and the two are not interconnected. This can create parallel systems which are not centrally managed and can create a range of issues including social payment

errors.

However, the Asian LDCs have managed to work around the existing systems to identify and speed up cash transfers during the pandemic especially to informal workers, migrants and those previously not covered by social protection programs that have slipped into poverty due to pandemic-related livelihood loss. Bangladesh, Cambodia, and Timor-Leste offer interesting case studies on this (International Policy Centre for Inclusive Growth, 2021; ESCAP, 2021b; World Bank, 2018a).

#### Bangladesh: Connecting multiple IDs

Even before the pandemic, Bangladesh had started work on connecting their national ID to a social registry. While many Bangladeshis have national IDs, the use of other identifiers, such as birth certificates is also common. During the setup of the social registry, the questionnaire captured the birth certificate as well as the national ID. In case of any discrepancy between the two IDs, the national ID prevailed.<sup>12</sup>

#### Cambodia: Working with what you have

Cambodia's National Social Protection Policy Framework, launched in 2017, brought together 17 ministries with a role in the country's social protection to ensure effective coordination in policy framing and implementation. However, implementation challenges remain as most ministries continue to work in a siloed manner.

Under Cambodia's IDPoor system, the Ministry of Planning with support from multilateral and bilateral aid agencies (such as the United Nations Development Program and GIZ) applied a proxy means test to identify poor families. Each family identified as poor was issued an Equity Card

<sup>11</sup> Use of this method does raise issues related to consent and data privacy. GSMA has done considerable research on use of mobile network operators for establishing identity and cash transfers. This can be found in GSMA

(2020) and on their website ([www.gsma.com/mobilefordevelopment/digital-identity/](http://www.gsma.com/mobilefordevelopment/digital-identity/)).

<sup>12</sup> The example is sourced from World Bank (n.d.).

separate from the National ID.<sup>13</sup> During COVID-19, the government realized that the IDPoor database that was used pre-COVID for conditional cash transfers and transfers to pregnant women needed to be updated because in the first round of transfers, there were nearly 30,000 people who did not claim benefits. Migration had been identified as a key reason for this. The provinces normally update the database every two years. To ensure that this was done rapidly, the government switched from a paper-based system of recording to digital data collection by tablets, resulting in near real-time database updating. Between June 2020 and August 2020, the list of beneficiaries identified under the IDPoor category increased from 530,000 to 669,000 households.

Due to COVID-19, several garment factories in Cambodia had to shut down, rendering factory workers, mostly women, jobless. Cambodia's Ministry of Labor and Vocational Training acquired the names, national ID numbers and mobile numbers of those workers who had lost their jobs from the shutdown factories and provided this to Wing (Cambodia) Limited Specialized Bank for cash transfers.

Wing worked with the Ministry of Planning and the Ministry of Labor and Vocational Training to provide cash transfers to those under the IDPoor program as well as garment factory workers, but it

is unclear if there is any overlap between the IDPoor and the factory worker list. As of March 2021, transfers continued to be delivered under both programs.

### **Timor-Leste: Combining functional ID and multiple databases**

The experience of this small and relatively new nation provides insights into the use of multiple functional registries to expand the list of cash transfer beneficiaries (box 4). In 2018, during national elections, the country witnessed an increase in voter registration. This process provided an ID that was both “ubiquitous and relatively robust” (World Bank, 2020). Using this as a base, the government performed checks for errors and duplicates to minimize errors and fraud cases. The voter ID registry was combined with village-level, digitized demographic data. Using the combined database along with tablet-based software into which the database was uploaded, the government was able to provide cash transfers. Results show that the digitized data, along with functioning grievance redressal systems and transparency, resulted in a relatively low error rate of 4 per cent out of over 300,000 transfers in the first round. This case points out to the importance of instituting a unified national ID and digital ID system.

### **BOX 4: Data collection in Timor-Leste**

In April 2020, the Government called on the Ministry of State Administration to request village heads to update an existing list of all Timorese national household heads, including both electoral ID numbers and the family ID. In May, this list was sent to the Ministry of Social Solidarity and Inclusion to cross check with the social security agency using the electoral ID to exclude recipients of the wage subsidy and households earning above

a combined \$500 per month. Additional screening of the electoral ID was done to identify internally inconsistent ID numbers (not enough numbers or incorrect format) and exclude duplicates. The finalized list contained 318,000 household heads across all villages in 13 municipalities. Ultimately, transfers were practically universal and completed by the end of June.

*Source:* Gentilini and others (2020).

<sup>13</sup> More details on the IDPoor can be sourced from:

[www.idpoor.gov.kh/](http://www.idpoor.gov.kh/).

The use of technology (e.g. tablets) and online platforms have been critical enablers for expanding outreach. Online platforms have been used to speed up registrations as near real-time database updating has been possible. These

platforms can be used across laptops, mobile phones and desktops. Thailand, for example, allowed people to register online for benefits and then applied eligibility filters to target cash transfers.

## 4. Developing further capacities for better G2P delivery

The enhancements discussed in the previous section, are mainly supply-side related. While the building blocks need further work, there are demand side areas that also require attention as they relate to ensuring the effectiveness of G2P in the reviewed LDCs. These relate to recipient capacity, accounting for those who have limited or no access to digital technology, and technology systems issues.

### 4.1. ENHANCING G2P RECIPIENT CAPABILITIES

Building capability is critical to address issues around knowledge gaps, misinformation, digital skills, and fraud. While in emergency and rapid scale-up situations, it is challenging to build capabilities, governments must adopt demand-side capability enhancement strategies given that digital G2P is likely to continue and grow in the future. Enhancing capabilities is also likely to encourage greater use of DFS, leading to more digital financial inclusion and savings versus just transfers and cash outs.

Capability enhancement programs should be incorporated within the G2P strategy and delivery framework, especially via mobile money agents. These should ensure that G2P recipients are taught the basics of their accounts (e.g. name on the account, account features), how to use mobile wallets (e.g. making transactions, asking questions), and making informed decisions (e.g. types of services – savings and loans, preventing over-indebtedness). Engagement with the beneficiary should not be a one-off engagement. There is a need to design a strategy incorporating teachable moments during the life cycle of a recipients' engagement journey on G2P (Berfond and others, 2019).

### 4.2. HAVING ALTERNATIVE MEASURES AS EVERYONE IS NOT DIGITAL

The push for inclusive systems has to account for those that cannot access mobile technology or agents. This is especially the case with older age groups and women in some contexts where mobile ownership and mobility are restricted due to health, cultural aspects, or even digital skills. Often, poor and low-income families have one mobile phone. Alternatives such as the use of local institutions like non-government organizations and allowing for multiple registrations via one mobile connection and has been considered. Gelb and Mukherjee (2020) noted that Namibia permitted up to ten emergency relief applications to be submitted through a single SIM, with each application distinguished by its unique ID number. However, this procedure required the government to manually verify 2.3 million applications, which led to the identification of about 970,000 individuals for further screening (p. 9). While in an emergency situation like the COVID-19 pandemic, this procedure may have contributed to catch vulnerable people in need of an emergency transfer, multiple registrations using a single mobile phone is not advisable due to client protection and agency reasons, especially for women recipients, and the potential for fraud.

### 4.3. CASH-OUT FAILURE RATES NEED TO BE ANALYZED

Research suggests that while failure rates are low – between 11 and 12 per cent, there are issues around slow rates of cash out due to lockdowns and social distancing rules (Gelb and Mukherjee,

2020).<sup>14</sup> Given that mobile wallets may not be as ubiquitous as agent access points, it merits further analysis on how delivery can be made more

effective during lockdowns and if overcrowding is to be avoided at agent access points.

<sup>14</sup> Failure rate refers to the inability of a G2P recipient to cash out the benefit due to technical (e.g. no internet, application update issues) or administrative (e.g. no

identification card) issues.

## 5. Concluding remarks

Asian LDCs have made considerable efforts to create an enabling environment for digital payments and transfers. With respect to G2P, the COVID-19 pandemic has witnessed a rapid expansion of programs in all the LDCs and an

increasing reliance on digital cash transfers. Table 5 summarizes the status and key challenges of the Asian LDCs in the three building blocks discussed in this paper.

**Table 5: Summary of the G2P building blocks and status/challenges amongst the Asian LDCs**

Country	Mobile connectivity/ agent access points	National ID	Socio-economic databases connected to National ID
<b>Afghanistan</b>	Substantial mobile connectivity/access points are lower substantially than other Asia LDCs. Challenges with interoperability.	Work in progress since 2018 to replace paper-ID with digital ID.	Multiple databases exist and are unconnected.
<b>Bangladesh</b>	High level of mobile connectivity and coverage, and access points. Interoperability is a challenge.	Significant population coverage of biometric national ID has been achieved, but its use is limited and on a case-by-case basis. Multiple IDs are used across social protection programs.	Work in progress, managed a work around to issue of multiple IDs.
<b>Bhutan</b>	Connectivity and coverage are high. Access points are being increased.	Work in progress to digitise national IDs.	Multiple databases exist but are unconnected.
<b>Cambodia</b>	Significant coverage in terms of mobile connectivity/agent access points. Interoperability is a challenge, but NBC <i>Bakong</i> app is meant to help overcome this.	Biometric National ID is available.	Databases exist but remain unconnected and not fully integrated yet into the e-government platforms.
<b>Lao People's Democratic Republic</b>	Significant coverage in terms of mobile connectivity/access points. Interoperability is a challenge.	Digital ID has been piloted in 2019 but multiple IDs are issued by different government agencies.	Multiple databases exist but are unconnected.
<b>Myanmar</b>	Significant coverage in terms of mobile connectivity/access points. Interoperability is a challenge.	Work in progress. Process of replacing paper-based IDs with biometric national ID began in 2017.	Multiple databases exist but are unconnected.
<b>Timor-Leste</b>	Significant coverage in terms of mobile connectivity/access points. Interoperability is a challenge.	Work in progress since 2018. Implementation framework for a national ID was laid in early 2021.	Multiple databases exist but are unconnected.

Source: ESCAP.

In all the Asian LDCs, mobile connectivity and coverage are high. This is complemented by a large number of agent access points. However, interoperability remains a challenge. While regulatory frameworks have been put in place, policymakers in the Asian LDCs should consider **allowing interoperability across multiple types of financial services providers and telecoms**. In addition, **establishing a business case** especially for small and medium providers is critical. This can be done **via the provision of grants or in-kind support**. Cambodia's *Bakong* app offers a good example of policy helping to create an enabling business case for interoperability.

Universal national IDs should be ramped-up in all the LDCs. While many Asian LDCs have embarked on this, the COVID-19 pandemic has clearly highlighted that in order to rapidly scale

up G2P, such a **foundational ID is critical to expanding coverage**. Related to this is the interconnectedness of a national ID to social economic databases. A **unique identifier enables cost savings and allows for better targeting**.

Looking beyond the three building blocks, there now is adequate experience amongst the Asian LDCs of provision of digital G2P during 2020. This experience needs to be examined not only in relation to the building blocks but also with respect to G2P recipient capability, efficacy and inclusion (as highlighted in section 4). **Recipient capability is especially crucial**. As it is a **costly activity**, financial services providers and telecoms may not want to engage. Here policymakers can consider taking the lead and **offer financial or in-kind support** in order to create a business case for enhancing the capability of G2P recipients.

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# Appendix:

## Overview of digital payments regulatory framework in LDCs



### Afghanistan

Since 2016, the country has progressively set in place various regulations and guidelines that allow for digital payments and transfers. The country allows for agent and branchless banking. In 2016, the Afghanistan Payment Systems was launched to help bring about interoperability, but there is no separate National Payment Systems Law. Adoption of the interbank payment system has been slow and retail payments interoperability is limited. This is being addressed by developing the Real-Time Gross Settlement system and linking it with the clearinghouse and Central Securities Depository. Concerning G2P, regulation has limited the role of non-bank entities in G2P distribution.



### Bangladesh

Under the country's 'Digital Bangladesh' plan, the country views mobile technology and linked DFS as a key enabler of financial inclusion. Only bank-led agent banking – Mobile Financial Service Agents (MFS) – is allowed though banks have used the extensive mobile telecom agent network to expand the MFS network. The country has a National Payment Switch in place. This is connected with the four big public banks and most of the commercial banks. But interoperability is still restricted as MFS accounts are not connected and dependent on bilateral agreements.<sup>15</sup> A national biometric system is in place and covers 95 per cent of the adult population, though its use is limited and has not been leveraged for G2P.



### Bhutan

Since 2016, the country has been putting in place the regulatory framework for digital payments and transfers. Agent banking rules were enacted in 2016, followed by E-money issuance and Payment and Settlement System in 2017 and 2018, respectively. In 2019, the country implemented an Electronic Public Expenditure Management System that helps shift the manual processing of G2P to online. This is facilitated by the Global Interchange for Financial Transaction payment system that allows for interbank transfers in real-time and into multiple accounts from one single account.

<sup>15</sup> This was to change as Bangladesh Bank has mandated interoperability between banks and the MFS providers. However, the decision was reversed after five days. Reason given was technical issues but were not elaborated on (Khan, 2020).



## Cambodia

Over the past decade, Cambodia has put in place a range of payment systems instruments such as the national clearing system, the shared switch, and a Payments Service Providers (PSP) regulation. The PSP regulation allows for money transfer (including cross border), cash-in/cash-out, bill payments, retail payments, and online payments. Interoperability across financial service providers and mobile telecom operators remains a challenge. The country's Fast and Secure Transfer (FAST) system allows real-time settlements. Its use is still dependent on an FSP providing its customers with the necessary interface to access the system. Most FSPs are unwilling or cannot afford to invest in such an interface (2021).<sup>16</sup> A recent development is the National Bank of Cambodia - supported *Bakong* Project that allows FSPs to integrate their mobile application backends via an open Application Programming Interface.<sup>17</sup> During the COVID-19 crisis, the government has made use of the extensive PSP agent network to deliver G2P social assistance. While there are national IDs and coverage is high, a digital ID is not available through a framework as it is being developed.



## Lao People's Democratic Republic

Digital payments and transfer development began in 2014 with a pilot on DFS. Though there is considerable effort remaining in creating an enabling environment for DFS, the country has made rapid progress in terms of setting in place various policies critical for the environment. The National Payment Systems Law was enacted in November 2017. In early 2020, the country also implemented the PSP licensing framework and the standardization of the QR code. Guidelines on agent banking are being framed. Lack of interoperability is also a challenge. While the Real Time Gross Settlement was launched in 2011, its effective use began as late as 2019. This affects the G2P transfer systems. PSP contracting for G2P entails the provider starting a new account or wallet even if the G2P recipient has one with another provider.



## Myanmar

In 2016, the Central Bank of Myanmar (CBM) established the CMB Financial Network System (CBM-NET) for interbank credit transfers and securities settlement in real time. All banks are connected to this, and large value and time-sensitive payments are settled using this system. The CBM-NET is limited in its connectivity and utilization. It only links with the head offices of banks and the three branches of the CBM. The system is also underutilized as banks mostly use it for limited services, including interbank settlements, customer credit transfers, and transacting in government securities. The CBM-NET is being upgraded to address a number of these issues. The retail payment system is in early-stage development. There is no interbank clearing system for electronic fund transfers and most electronic payments are between customers from the same bank. Interbank retail payments are largely dependent on the Myanmar Payment Union (MPU) which was set up by a few commercial banks in 2012 to increase interoperability for ATMs, PoS and e-commerce transactions based on cards. This impacts interoperability as financial service providers like banks and mobile money providers are not in one payment ecosystem.

<sup>16</sup> Especially the smaller microfinance institutions.

<sup>17</sup> For more details, please visit: <https://bakong.nbc.org.kh/>.



## Nepal

The regulatory policy and infrastructure related to digital payments are evolving in Nepal. The National Payments System Development Strategy (2014) and Nepal Digital Framework (2019) lay out the overall strategy for the development of DFS in the country. As of December 2019, the country had licensed 57 banks, finance companies and non-bank institutions to work or operate as PSPs. The 2020 Monetary Policy laid stress on the development of the national payment gateway, which was a work in progress as of October 2020 through the expected launch was September 2020. Many commercial banks have been allowed the use of agents and digital wallets to help increase outreach related to financial inclusion, but lack of interoperability remains a challenge with most banks, MFIs and PSPs not connected except via bilateral agreements.



## Timor-Leste

In 2014, the country launched its financial sector master plan that envisioned a modern payment system. This vision was elaborated in the National Strategy for Financial Inclusion 2017-2022 in terms of enhancing access to financial services access points via the modernization of the payment systems in Timor-Leste. In 2018, the country launched R-TIMOR which is the RTGS system and soon after integrated government payment systems (including G2P) into this platform. In line with the national strategy, the country has also established an enabling environment for interoperability. Currently, it integrates banks and fintech e-wallet providers, but further work is needed on integrating bank wallets, and non-bank financial institutions. In 2020, Timor-Leste launched a Digital Village pilot to increase access points to those unbanked via the use of electronic payments.

*Source:* ESCAP (2021a; 2021b); Banco Central De Timor-Leste (2017); Baur-Yazbeck and Roest (2019); Central Bank of Myanmar (2020); Da Afghanistan Bank (2019b; n.d.); UNCDF (2020); Frost & Sullivan (2018); Nepal Rastra Bank (2015; 2019; 2020a; 2020b); Interviews with UNCDF Myanmar, Banco Central De Timor-Leste, and Ministry of Information and Communication (Bhutan).

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