Enhancing Digital G2P Transfer Capacities in Asian LDCs:
Findings from Afghanistan, Bangladesh, Bhutan, Cambodia, Lao People's Democratic Republic, Myanmar, Nepal, and Timor-Leste

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Abstract

In response to the COVID-19 pandemic, there has been a rapid scale-up of government-to-people (G2P) transfers, especially digital cash transfers via mobile money agents and e-wallets. Many of the least developed countries (LDCs) have relied on robust mobile money agent networks and high levels of mobile connectivity and ownership coverage for these transfers. Such transfers are particularly advantageous in emergency situations like the COVID-19 pandemic as they allow for transfers to take place in circumstances of social distancing and lockdowns. India’s ‘JAM Trinity’ shows that three-building blocks are needed for an efficient G2P payment system that allows for a rapid response: (i) a universal identification, (ii) interconnected socio-economic databases to the ID, and (iii) a system for digital delivery. Using the three-building blocks as a framework, this paper aims to assess the current status of the G2P payment systems in Asian LDCs - Afghanistan, Bangladesh, Bhutan, Nepal, Cambodia, Lao People’s Democratic Republic, Myanmar, and Timor-Leste. This is done in the context of the COVID-19 pandemic, wherein the above-mentioned countries have rapidly scaled up their G2P payment systems for cash transfers. The assessment is based on desk research as well as interviews with various stakeholders in the above-mentioned LDCs. The paper also provides recommendation that can be explored by regulators and policy makers for enhancing G2P capacities. Amongst the Asian LDCs, while most have progressed on the digital delivery bloc and have utilized these for cash transfers in response to the pandemic, interoperability and grievance redressal practices related to the use of digital delivery and a universal ID that is connected to socio-economic databases are still work in progress and require further attention.

Keywords: Least developed countries, government-to-people transfers, digital payments, mobile money, universal identification, digital delivery.

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### Abbreviations and acronyms

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<th>Full Form</th>
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<tbody>
<tr>
<td>CBM</td>
<td>Central Bank of Myanmar</td>
</tr>
<tr>
<td>CBM-NET</td>
<td>CMB Financial Network System</td>
</tr>
<tr>
<td>DFS</td>
<td>Digital financial services</td>
</tr>
<tr>
<td>FAST</td>
<td>Fast and Secure Transfer</td>
</tr>
<tr>
<td>FSP</td>
<td>Financial service providers</td>
</tr>
<tr>
<td>GSMA</td>
<td>Global System for Mobile Communications Association</td>
</tr>
<tr>
<td>G2P</td>
<td>Government-to-People</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>LDC</td>
<td>Least Developed Country</td>
</tr>
<tr>
<td>MFI</td>
<td>Microfinance Institutions</td>
</tr>
<tr>
<td>MFS</td>
<td>Mobile Financial Service</td>
</tr>
<tr>
<td>MPU</td>
<td>Myanmar Payment Union</td>
</tr>
<tr>
<td>NBC</td>
<td>National Bank of Cambodia</td>
</tr>
<tr>
<td>OSI</td>
<td>Online Service Index</td>
</tr>
<tr>
<td>PSP</td>
<td>Payments Service Providers</td>
</tr>
<tr>
<td>P2P</td>
<td>People-to-People</td>
</tr>
<tr>
<td>PoS</td>
<td>Point of Sale</td>
</tr>
<tr>
<td>SME</td>
<td>Small and Medium Enterprises</td>
</tr>
<tr>
<td>RTGS</td>
<td>Real-Time Gross Settlements</td>
</tr>
<tr>
<td>TII</td>
<td>Telecommunication Infrastructure Index</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
</tbody>
</table>
1. Introduction

Digital payments offer multiple benefits to various stakeholders, including governments, recipients, and service providers. These include lower costs of transfers, and increased financial inclusion (Klapper and Singer, 2014). Evidence suggests that shifting government payments to digital platforms does result in substantial savings. 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 the Asian LDCs, have started to improve their G2P cash transfer systems.

In response to the COVID-19 pandemic, until December 2020, 1,414 social protection measures had been either planned or implemented across 222 countries or territories. These included various social assistance, social insurance, and labor market measures. Social assistance measures constituted 55 per cent of the measures (for East Asia and Pacific it is higher at 61 per cent and for South Asia it is at 70 per cent) and within that, 42 per cent were cash transfers (Gentilini, Almenfi and Dale, 2020). In light of the importance of cash transfers as a policy response to the pandemic, the capacity of countries to manage G2P transfers effectively as well as to ensure inclusion, especially of informal workers, is important. Lessons from the rapid scale-up of G2P systems in various countries suggest three building blocks for an effective G2P 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 report reviews the three building blocks in the eight Asian LDCs – Afghanistan, Bangladesh, Bhutan, Cambodia, Lao People’s Democratic Republic, Myanmar¹, Nepal, and Timor-Leste – and discusses measures that can enhance the capacity of these blocks. It also looks at whether the reviewed LDCs offer any lessons that can be cross-pollinated. The report also reviews the regulatory frameworks for digital payments, digital delivery channels available based on mobile connectivity and proliferation of agents in the reviewed LDCs.

¹ Note on Myanmar: The drafting of this paper was begun before the coup in Myanmar and continued post the coup. Information has been sourced from online resources and interviews with United Nations Capital Development Fund.
2. The G2P building blocks

During the COVID-19 pandemic, several countries, including many of the Asian LDCs, rapidly scaled up their digital G2P payment systems. G2P allows for swift delivery of social assistance to vulnerable populations under conditions of social distancing and lockdowns, and many countries are likely to continue to use G2P 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.

IMF’s research (Prady, 2020) on 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 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 digital delivery (e.g., by mobile phones) that mitigate the need to physical cash deliveries. This is especially crucial given the social distancing and lockdowns that has happened during the COVID-19 pandemic.

Figure 1: The building blocks of an efficient G2P system

![Diagram of G2P building blocks]

**Universal ID**
A national unique ID that is digital

**Interconnected socio-economic database**
Multiple socio-economic databases that are connected to the unique ID

**Digital delivery**
Delivery of social assistance transfers via digital or cash-less means (mostly via mobile or agent banking)

Source: Author compilation.

India is a good example of a country that has developed these building blocks to deliver social assistance relatively effectively and also resulting in savings for the exchequer. Box 1 details the India example.

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2 Digital G2P payment system are henceforth referred to as G2P.
Box 1: India – Delivering social transfers via the ‘JAM Trinity’

India created the JAM Trinity intending to combine, universalize and digitizing 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 that is being used as a delivery platform.

All these three pillars were 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 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 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 fiscal year 2019-2020, India registered more than one billion transactions under its direct benefits transfer program, amounting to $38 billion. Leveraging the above system, India provided cash transfer support to nearly 65 million women during the initial days of the pandemic. These transfers were completed in five days.

Source:
3. The state of G2P in the LDCs

Digital financial services (DFS) are widely acknowledged as a key ingredient for enhancing financial inclusion. 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). Many LDCs have started with digital payments as part of DFS development. This has been facilitated by the availability of expanded networks of basic mobile connectivity and the proliferation of mobile money agents.

The development trajectory of digital payments can vary in terms of the G2P or people-to-people (P2P) that spurs its growth. While G2P helps to create the enabling regulatory ecosystem on which P2P can then grow, the growth of digital payments in many African countries reveals that it is P2P that has helped pave the way for digital payments (Gelb and Mukherjee, 2020).

The 2018 Global Findex data (Table 1) revealed a low base of G2P social transfers in the Asian LDCs. Nepal has the highest coverage at 10 per cent while Afghanistan and Bhutan have the lowest coverage at 2 per cent. Lao People’s Democratic Republic, and Myanmar are under 5 per cent, and Cambodia and Bangladesh over 5 per cent.

Table 1: Government Transfers in reviewed LDCs (percentage of the adult population)

<table>
<thead>
<tr>
<th>Country</th>
<th>Received government transfers in the past year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>2</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>6</td>
</tr>
<tr>
<td>Bhutan</td>
<td>2</td>
</tr>
<tr>
<td>Cambodia</td>
<td>5</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic</td>
<td>4</td>
</tr>
<tr>
<td>Myanmar</td>
<td>3</td>
</tr>
<tr>
<td>Nepal</td>
<td>10</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source: Author compilation, based on Demirgüç-Kunt and others (2018).

Note: (1) Data for Timor-Leste is unavailable.
(2) Comparable data for Bhutan is only available for 2014. 2017 data in Findex is not available.
(3) 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.

Nonetheless, in the past years, the Asian LDCs have put 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 have also relied on cash transfers extensively during the COVID-19 pandemic (Gentilini, Almenfi and Dale, 2020). World Bank data (Table 2) on fiscal responses to the pandemic reveal that the coverage of social protection has increased substantially during the pandemic (World Bank, 2020).
Table 2: Coverage of COVID-19 related cash transfers – initial round

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

Source: Author compilation, adapted from World Bank (2020).
Note: Data is as of 28 August 2020 for countries that had identified specific cash transfer beneficiaries.

Table 1 covers the initial round of COVID-19 cash transfer responses. Many of the Asia LDCs further expanded their cash transfer programs, including the following:3

- 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-19 was the first one implemented on the country. Its focus was on returning migrants and those whose livelihood was either lost or negatively impacted due to the pandemic.
- In Cambodia, the number of households were expanded to 669,000 households by September 2020 because of a deliberate push by the government to update their social protection beneficiary list.
- In February 2021, Lao People’s Democratic Republic announced income support (cash transfer) for 17,000 garment factory workers in the country. Digital delivery via mobile network operators will 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. After checking for duplications and errors, by June 2020 the country had identified a list of households (nearly universal) that qualified for the cash transfers.

Nepal is the only country amongst the reviewed LDCs that has not deployed direct G2P as a response to COVID-19 until December 2020, except for an extension (additional locations) of an existing child

grant social protection program.⁴ In its response to the pandemic, the country has implemented public-works projects for unemployed informal sector 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.⁵

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.

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⁴ As of December 2020 and based on Word Bank data (Gentilini, Almenfi and Dale, 2020).
⁵ For more details see: Franciscon and Arruda (2020), Shrestha (2020a), and Shrestha (2020b).
4. G2P building blocks and how to enhance its capacity

4.1. 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 terms 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 the Asian LDCs, GSMA data (Figure 2) reveals that mobile connectivity has been improving over the years. Over 80% of the population in these LDCs are covered by a 2G connection and 3G coverage is high.

**Figure 2: Mobile coverage and ownership**

![Mobile coverage and ownership](image)

*Source:* Author compilation, adapted from GSMA (2020a) and DESA (2020).

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. 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 other means.

The scale-up was possible due to the vast mobile money networks that were present in most countries and 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 the countries. 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 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, Lao People’s Democratic Republic, Timor-Leste, and Myanmar relied on their vast PSP and mobile network agent to deliver cash transfers.

Table 3: Significant presence of mobile money agents

<table>
<thead>
<tr>
<th>Country/Indicator</th>
<th>Year</th>
<th>Active mobile money agents</th>
<th>Active mobile money agents/100,000 adults</th>
<th>ATM</th>
<th>ATMs/100,000 adults</th>
<th>Bank branches/1000,000 adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>2015</td>
<td>2,015</td>
<td>8.08</td>
<td>174</td>
<td>0.91</td>
<td>395</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>2,151</td>
<td>9.82</td>
<td>359</td>
<td>1.64</td>
<td>398</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>2015</td>
<td>243,042</td>
<td>219.93</td>
<td>7,839</td>
<td>7.09</td>
<td>9,458</td>
</tr>
<tr>
<td>Bhutan</td>
<td>2015</td>
<td>NA</td>
<td>NA</td>
<td>152</td>
<td>28.75</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>NA</td>
<td>NA</td>
<td>274</td>
<td>48.09</td>
<td>105</td>
</tr>
<tr>
<td>Cambodia</td>
<td>2015</td>
<td>3,629</td>
<td>34.18</td>
<td>1,416</td>
<td>13.33</td>
<td>614</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>41,155</td>
<td>362.30</td>
<td>2,644</td>
<td>23.27</td>
<td>896</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic</td>
<td>2015</td>
<td>NA</td>
<td>NA</td>
<td>1,028</td>
<td>22.97</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>*14,640</td>
<td>*1,305</td>
<td>NA</td>
<td>*653</td>
<td>NA</td>
</tr>
<tr>
<td>Myanmar</td>
<td>2015</td>
<td>767</td>
<td>2.01</td>
<td>743</td>
<td>1.95</td>
<td>1,252</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>57,221</td>
<td>142.93</td>
<td>2,748</td>
<td>6.86</td>
<td>2,203</td>
</tr>
<tr>
<td>Nepal</td>
<td>2015</td>
<td>NA</td>
<td>NA</td>
<td>1,721</td>
<td>9.55</td>
<td>1,672</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>58,991</td>
<td>292.77</td>
<td>3,316</td>
<td>16.45</td>
<td>3,557</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>2015</td>
<td>NA</td>
<td>NA</td>
<td>48</td>
<td>6.63</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>689</td>
<td>84.96</td>
<td>72</td>
<td>8.87</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Adapted from IMF (2021); ESCAP (2021a).
Note: Lao People’s Democratic Republic figures (*) are as of August 2020.

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

While agent access and mobile connectivity is essential, regulatory frameworks related to these aspects are a critical enabler. 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 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

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7 The Sakchyam 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://sakchyam.com.np/.
Bangladesh, to collect their Old Age Allowances, recipients had 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 the risk of theft during the return home or that the cash out may not happen due to various technological or human reasons (Baur-Yazbeck, 2019).

Interoperability is limited, and where transfers 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 left out PSPs and microfinance institutions. In Bhutan inter-bank 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 Lao People’s Democratic Republic, the uptake has been slow and G2P transactions can only be done via mobile wallets of specific providers.8

FSPs have to provide their customers with the necessary interface that facilitate interoperability, but most FSPs (especially small and medium-sized) are unwilling to or financially unable to invest in these systems (National Bank of Cambodia, 2020).9 Many of the smaller and medium-sized FSPs do not have core banking systems or these are still being implemented. This inhibits connecting to automated transfer systems. Cambodia’s national bank has tried to circumvent some of these issues with the creation of a block-chain based mobile app solution called Bakong (Box 2).

**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.


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 that was 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

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8 See Appendix for specific details on status of interoperability in the Asian LDCs.

9 Unwilling because FSPs have a negative view of sharing their client data with competitors.
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 account, 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, putting the onus of grievance redressal on the PSPs or FSPs for dispute settlement. Afghanistan, Cambodia, Myanmar, Nepal, and Timor-Leste all require mechanisms to be in place, but details of the mechanisms have not been made clear. Regulation in Bangladesh and 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 strategy 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 among the Asian LDCs, but its effectiveness is not yet known. It offers a good example of what constitutes a robust grievance redressal policy. The policy is summarized in Box 3.10

**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 need to be trained on consumer protection rules as well as complaint handling
- Providers have to maintain evidence of complaints resolved.


### 4.2. 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 particularly is the case with women and informal sector workers. There is a correlation between an ID, a mobile

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connection and access to the payments system wherein 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 (2018a) 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 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 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, 2018a).

Applying a gender lens to the data shows that the percentage of unregistered women is not available for a majority of the reviewed LDCs, though 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).

### Table 4: ID coverage across the Asian LDCs

<table>
<thead>
<tr>
<th>Country/Indicator</th>
<th>Unregistered population (%)</th>
<th>% of unregistered population that is female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>33</td>
<td>55</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>32</td>
<td>n/a</td>
</tr>
<tr>
<td>Bhutan</td>
<td>22</td>
<td>36</td>
</tr>
<tr>
<td>Cambodia</td>
<td>14</td>
<td>n/a</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic</td>
<td>17</td>
<td>n/a</td>
</tr>
<tr>
<td>Myanmar</td>
<td>32</td>
<td>n/a</td>
</tr>
<tr>
<td>Nepal</td>
<td>26</td>
<td>58</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>22</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Source: Author compilation, adapted from World Bank (2018a).

High rates of registration need not to translate into an effective and unique ID system. In 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 hand-written and having duplicate numbering (ESCAP, 2021a). While Lao People’s Democratic Republic has a digital ID system, its coverage is unclear, but is likely to be low given that the ID system reform process began recently and that the country was piloting the digitized foundational ID system in 2019 (GSMA, 2019). In Cambodia as well, the ID system’s digitized foundation 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.

In 2011, under a World Bank funded project, 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 (e.g., passports application and tax identification) and private (e.g., mobile SIM and financial services) services. Under the project, biometrics were collected, and an estimated 80 million Bangladeshis were covered towards the end of 2018 (World Bank, 2018b). 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 national ID proxy. In 2018, the government launched an initiative to issue national IDs to all citizens, and in late 2020 and early 2021 efforts to lay the framework and implementation of a unique digital ID for all Timorese citizens begun (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-tazkiras’ (Gul, 2018). In Bhutan as well, the process of digitizing is currently on-going.

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 reviewed LDCs do have a high penetration of agents (Table 3). Their know-your-customer process for a SIM or a mobile money account requires simple due diligences that involve submitting a valid ID (for example national ID, voter ID or birth certificates) that is 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 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).  

4.3. Devising alternate mechanisms to replace inter-connected unique IDs and socio-economic databases

During the early months (as of June 2020) of the COVID-19 pandemic, over 100 countries had plans

\[\text{Use of this method does raise issues related to consent and data privacy. GSMA has done considerable research on use of mobile network operators for establishing identity and cash transfers. This can be found in GSMA (2020b) and on their website (https://www.gsma.com/mobilefordevelopment/digital-identity/).}\]
to expand or had already expanded their cash transfer coverage. All the reviewed LDCs 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 sector 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, 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 that 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 (lacking a ubiquitous foundational ID like the Aadhaar) and multiple databases that may not use the same IDs (e.g., birth certificates or driving license or national insurance cards or voter IDs) and/or may not be interconnected to them.

However, the Asian LDCs have managed to work around the systems that existed to identify and speed up cash transfers during the pandemic especially to the ‘missing middle’ such as informal sector 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, 2018b).

**Bangladesh: Connecting multiple IDs**

Even before the pandemic, Bangladesh had started to 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 set-up 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.12

**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 separate from the National ID.13 During COVID-19, the government realized that the IDPoor database that was

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12 The example is sourced from World Bank (NA).

13 More details on the IDPoor can be sourced at https://www.idpoor.gov.kh/.
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 and used tablets to collect data 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 factories and provided this to a PSP, Wing (Cambodia) Limited Specialized Bank (‘WING’) 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 the garment factory workers, but it is unclear if there is any overlap between the IDPoor and 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 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 a 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 an error rate of only 4 per cent out of over 300,000 transfers in the first round, indicating that there were minimal error and fraud.

**Box 4: Data collection in Timor-Leste**

In April 2020, the Government called on the Ministry of State Administration (MSA) 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 (MSSI) 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.

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 transfer.
5. Developing capacities on G2P delivery further

The enhancements that have been considered in the earlier section are mainly supply side related. While the building blocks need further work, there are demand side areas that also require attention as they are important to ensure the effectiveness of G2P in the reviewed LDCs. These areas are related to (i) improving recipient capacity, (ii) accounting for those who have limited or no access to digital technology, and (iii) addressing technology systems issues.

5.1 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 to grow in the future. Enhancing capabilities is also likely to encourage greater use of DFS leading to more digital financial inclusion versus just transfers cash-outs.

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

5.2 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 allowing for multiple registrations via one mobile connection and the use of local institutions like non-government organizations can be considered (Gelb and Mukherjee, 2020).

5.3 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). Since mobile wallets may not be as ubiquitous as agent access points, a more detailed analysis is needed on how to make delivery more effective during lockdown and how to avoid overcrowding at agent access points.

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14 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.
6. **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 4 summarizes the status and key challenges of the Asian LDCs in the three building blocks discussed in this report.

**Table 4: Summary of the G2P building blocks and status/challenges amongst the Asian LDCs**

<table>
<thead>
<tr>
<th>Country</th>
<th>Mobile connectivity/agent access points</th>
<th>National ID</th>
<th>Socio-economic databases connected to National ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>Substantial mobile connectivity/access points are lower substantially than other Asia LDCs. Challenges with interoperability</td>
<td>Work in progress since 2018 to replace paper-ID with digital ID</td>
<td>Multiple databases exist, and are unconnected</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>High level of mobile connectivity and coverage, and access points. Interoperability is a challenge</td>
<td>Significant population coverage of biometric national ID has been achieved, but its use is limited and on case-by-case basis. Multiple IDs are used across social protection programs</td>
<td>Work in progress, managed a work around to issue of multiple IDs</td>
</tr>
<tr>
<td>Bhutan</td>
<td>Connectivity and coverage are high, access points are being increased</td>
<td>Work in progress to digitise national IDs</td>
<td>Multiple databases exist, but are unconnected</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Significant coverage in terms of mobile connectivity/agent access points. Interoperability is a challenge, but NBC Bakong app is meant to help overcome this</td>
<td>Biometric National ID is available</td>
<td>Databases exist but remain unconnected and not fully integrated yet into the e-government platforms</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic</td>
<td>Significant coverage in terms of mobile connectivity/access points. Interoperability is a challenge</td>
<td>Digital ID has been piloted in 2019. Currently but multiple IDs are issued by different government agencies</td>
<td>Multiple databases exist, but are unconnected</td>
</tr>
<tr>
<td>Myanmar</td>
<td>Significant coverage in terms of mobile connectivity/access points. Interoperability is a challenge</td>
<td>Work in progress. Process of replacing paper-based IDs with biometric national ID began in 2017</td>
<td>Multiple databases exist, but are unconnected</td>
</tr>
</tbody>
</table>
In all the Asian LDCs, mobile connectivity and coverage is high. This is complemented by the large number of agent access points. However, interoperability remains a challenge. While regulatory frameworks have been put in place, policy makers 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 of the 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 better targeting.

Looking beyond the three building blocks, there 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, inclusion (as highlighted in Section 5). Recipient capability is especially crucial. It is a costly activity and financial services providers, and telecoms may not want to engage in. Here policy makers can consider taking the lead and offer financial or in-kind support in order to create a business case for enhancing capability of G2P recipients.
References


Davidovic, Sonja, and others (2020). Beyond the COVID-19 Crisis: A Framework for Sustainable...


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 branch-less 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 inter-bank payment system has been slow and retail payments interoperability is limited. This is being addressed with the development of 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 is viewed 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.\(^\text{15}\) 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.\(^\text{16}\)

**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.

**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 remain 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).\(^\text{17}\) A recent development is the National Bank of Cambodia - supported Bakong Project that allows FSPs to integrate

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\(^{15}\) 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).

\(^{16}\) Reasons are detailed later.

\(^{17}\) Especially the smaller microfinance institutions.
their mobile application backends via an open Application Programming Interface.\textsuperscript{18} 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 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 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 inter-bank credit transfers and securities settlement in real-time. All banks are connected to this and large value, 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.\textsuperscript{19} The system is also under-utilized 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 for increasing 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 on one payment ecosystem.

**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) layout 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.

\textsuperscript{18} For more details, please visit: https://bakong.nbc.org.kh/.

\textsuperscript{19} More than half of the commercial banks do not have a centralised core banking system. Banks with core banking are able to transact faster than those without core banking, though given the limited branch connectivity, the process is slower than expected even with core banking.
**Timor-Leste**

In 2014, the country launched its financial sector masterplan 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) to 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 (2020b); Banco Central De Timor-Leste (2017); Baur-Yazbeck and Roest (2019); Central Bank of Myanmar (2020); Da Afghanistan Bank (2019a); Da Afghanistan Bank (NA); UNCDF (2020); Frost & Sullivan (2018); Nepal Rastra Bank (2015); Nepal Rastra Bank (2019); Nepal Rastra Bank (2020a); Nepal Rastra Bank (2020b); Interviews with UNCDF Myanmar, Banco Central De Timor-Leste, and Ministry of Information and Communication (Bhutan).