

# DFSO Focus Note: DFS in Nepal

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Nepal is near the Himalayan mountain range between India and China and is one of the world's poorest nations. The effect of a decade-long insurgency that ended in 2006 and a massive earthquake in 2015 has set back the country's development.

Its financial infrastructure is slowly improving, with the government and the central bank moving from a bank-centric environment for financial provision to a more enabling environment where non-banks can participate, providing licenses to non-bank payment service providers and microfinance institutions for digital payment-related services. The ecosystem is in transition though, with a mix of restrictive and non-restrictive regulations still in effect, particularly around the use of agents. While there are new non-bank participants, the financial ecosystem still remains focused around 'mobile-banking' and recently, mobile wallets limited to payment activities.

This Note<sup>2</sup> reviews the status of the financial ecosystem and the shift from a restrictive to an enabling environment, primarily focusing on current supporting policies, laws, regulations and governmental initiatives. It tracks its evolution from bank-centricity to an open enabling environment which embraces digital financial services in Nepal. A scan of laws, regulations, policies as well as interviews with ecosystem participants and aid agencies illustrates that challenges exist which hamper successful implementation of DFS for financial inclusion.

To achieve goals of financial inclusion though, there is further need for scalable services and proper infrastructure and coordination among ecosystem participants, which can be encouraged through proper policies and regulations.

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<sup>2</sup> This research was funded through a grant from the Bill and Melinda Gates Foundation, which facilitated the creation of the Digital Financial Services Observatory, a DFS policy and regulatory research project of the Columbia Institute for Tele-information at Columbia University in New York. See [www.dfsobservatory.com](http://www.dfsobservatory.com)

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## ABBREVIATIONS

AML/CFT	Anti-Money Laundering/ Counter Financing of Terrorism
BoP	Bottom of the Pyramid
CDD	Customer Due Diligence
CGAP	Consultative Group to Assist the Poor
CIV	Customer Identification and Verification
DFS	Digital Financial Services
DFSP	Digital Financial Service Provider
FATF	Financial Action Task Force
FIU	Financial Institution Unit
FSDS	Financial Sector Development Strategy
GDP	Gross Domestic Product
IFC	International Finance Corporation
IMEI	International Mobile Equipment Identity
ITU	International Telecommunication Union
IVR	Interactive Voice Response
KYC	Know Your Customer
MFI	Microfinance Institutions
MFS	Mobile Financial Services
MM4P	Mobile Money for the Poor
MMO	Mobile Money Operator
MNO	Mobile Network Operators
MoF	Ministry of Finance
MoU	Memorandum of Understanding
NEIR	National Equipment Identity Registry
NRB	Nepal Rastra Bank
NTA	Nepal Telecommunications Authority
NTC	Nepal Telecom Company
PSD	Payment Systems Department
PSO	Payment System Operator
PSP	Payment Service Providers
RBA	Risk Based Approach
SDD	Simplified Due Diligence
SMS	Short Message Service
UNCDF	United Nations Capital Development Fund
USAID	United States Agency for International Development
USSD	Unstructured Supplementary Service Data

## 1. Introduction

Nepal is a landlocked country in the Himalayas with over 29 million people,<sup>3</sup> the majority of which live in rural areas and remain financially excluded.<sup>4</sup> Financial inclusion has been a major priority for the central bank, Nepal Rastra Bank (NRB). It is slowly embracing an enabling environment for non-bank providers of financial services by moving away from exclusive support for bank-only – ‘branchless banking’ - provision of financial services through bank agents.

Key to this transition is embracing the use of digital financial services (DFS),<sup>5</sup> a successful mobile-centric ecosystem where primarily non-banks with their third-party agents provide a range of transactional services using mobile phones. DFS has enhanced financial inclusion in many emerging countries by providing services to those in rural areas where mobile coverage – but not a physical branch - is available.<sup>6</sup> Services also include a number of Government-to-Person (G2P) programs that pay social grants and those affected by humanitarian crises<sup>7</sup> electronically directly into a DFS account.

Similarly in Nepal, many government initiatives are looking to provide social security transfers through digital channels<sup>8</sup> and changes in regulations to provide licenses to non-bank payment service providers (PSPs)<sup>9</sup> and recently Microfinance Institutions (MFIs) for digital payment services will assist in more ubiquitous and efficient disbursement of these funds.<sup>10</sup>

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<sup>3</sup> World Bank Group (2017) *Population, total*, available at <https://bit.ly/2PfDTYf>

<sup>4</sup> Ministry of Population and Environment (2017) *Nepal Population Report 2017*, available at <https://bit.ly/2PhReiE>

<sup>5</sup> For an introduction of the DFS scheme, see **Exhibit 1**; and for a more comprehensive introduction to DFS, see Perlman, L (2018a) *The Digital Financial Services Primer 2018*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

<sup>6</sup> GSMA (2018) *2017 State of the Industry Report on Mobile Money*, available at <https://bit.ly/2IvPZ94>

<sup>7</sup> See Gurung, N & Perlman, L (2018a) *The Role of Digital Financial Services in Humanitarian Crises Responses*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

<sup>8</sup> MoF (2016) *Budget Speech of Fiscal Year 2016/17*, available at <https://bit.ly/1X8INoh>

<sup>9</sup> Nepal Rastra Bank defines PSPs as institutions that carry out payment related transaction through electronic means, make payment of goods and service as an intermediary between customers and service provider, carry out domestic money transfer business, carry out electronic transaction through telecommunication network and other mentioned payment providing activities. See Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/A9KrDo>; MM4P (2016) *Nepal Annual Monitor*, available at <https://bit.ly/2MtdiSv>

<sup>10</sup> For the NRB announcement in Nepali language, see <https://bit.ly/2SiwsOI>. The Himalayan Times (2018) *NRB allows MFIs to Obtain License for Digital Payment Service Provider*, available at <https://bit.ly/2D3g001>; Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/A9KrDo>; MM4P (2016) *Nepal Annual Monitor*, available at <http://www.uncdf.org/article/2337/nepal-annual-monitor-2016>

Digital Financial Services is a relatively new, low-cost means of digital access to transactional financial services.<sup>11</sup> Often termed ‘mobile money’ or ‘mobile financial services,’ DFS is one of the core solutions used in developing countries to catalyze financial inclusion. Aimed at those at the Bottom of the Pyramid (BOP)<sup>12</sup> in developing countries, it shifts provision of financial services by primarily banks to non-banks, using digital access devices such as mobile phones and digital value transfer channels, while supporting the emergence of agent networks for cash handling and account signups. DFS leverages primarily mobile phones to provide access to basic financial products and services.

DFS in particular is transforming the financial landscape by introducing new financial ecosystem participants as part of what have been termed as ‘mobile money operators’ (MMOs),<sup>13</sup> digital financial service providers (DFSPs),<sup>14</sup> and agents.<sup>15</sup> In general, DFS can be offered by banks and non-banks – known as DFSPs - who may be licensed or authorized by a range of regulators to provide these services, either on their own or in mandated partnerships.

When offered by banks, the banks are the sole provider of financial services, with the agent networks and technology being managed either solely by the bank, or in partnership with other agent network managers, MNOs or TSPs.<sup>16</sup> If banks use agents to provide services, it is often referred to as ‘branchless

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<sup>11</sup> While DFS is a relatively new term, its scope includes even an early implementation of a mobile phone-centric transactional financial ecosystem was launched in 2001 in the Philippines. It was initially called ‘mobile banking,’ later ‘mobile money,’ then ‘mobile financial services,’ and leading to the contemporaneous term DFS. For a comprehensive introductory ‘primer’ to DFS worldwide, see Perlman, L (2018a) *The Digital Financial Services Primer*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

<sup>12</sup> The term BOP was introduced in 1999 by Prahalad and Hart to describe ‘Four Consumer Tiers.’ At Tier 4, they indicated, were the 4 billion people at the ‘bottom of the pyramid’ who had an annual per capita income — based on purchasing power parity in US dollars — is less than USD 1,500, the minimum considered necessary to sustain a decent life. For well over a billion people — roughly one-sixth of humanity — per capita income is less than USD 1 per day. See Prahalad, C & Hart, S (1999) *Strategies for the Bottom of the Pyramid: Creating Sustainable Development*, available at <https://bit.ly/2OdTYsV>. For an analysis of the BOP concept years later with revised figures, see Kolk, A, Rivera-Santos, M & Rufin, C (2012) *Reviewing a Decade of Research on the 'Base/Bottom of the Pyramid' (BOP) Concept*, available at <https://ssrn.com/abstract=2193938>

<sup>13</sup> Mobile money operator or mobile money provider is an entity that is licensed to build and provide mobile money services. The requirements to gain license to be an MMO may differ from jurisdiction to jurisdiction. MMO is a type of DFSP. Summarized from David-West, O, Muritala, O & Umukoro, I (2017) *Adoption and Use of Mobile Money Services in Nigeria*, available at <https://bit.ly/2GTADhM> ; Lal, R & Sachdev, I (2015) *Mobile Money Services – Design and Development for Financial Inclusion*, available at <https://hbs.me/2EFFGfC>

<sup>14</sup> Banks, other licensed financial institutions, and non-banks who supply financial products and services through digital means. A mobile money operator can be a type of DFSP. ITU (2016) *The Digital Financial Services Ecosystem*, available at <https://bit.ly/2BiFoNK>

<sup>15</sup> A third party acting on behalf of a bank or financial service provider to facilitate transactions with customers. They perform cash-in, cash-out services and may also register new customers. The use of retail outlets as agents can help provide financial services to underserved populations at a lower cost. Summarized from AFI (2013) *Mobile Financial Services Basic Terminology*, available at <https://bit.ly/2IONJ14> ; GSMA (2010) *Mobile Money Definitions*, available at <https://bit.ly/2IeH7HG>

<sup>16</sup> IFC (2014) *Mobile Financial Services*, available at <https://bit.ly/2Mv5U9c>

banking'.<sup>17</sup> Branchless banking and mobile banking<sup>18</sup> are commonly used in Nepal as means to provide financial access.

What are known as 'enabling and proportional' regulatory regimes allow DFSPs to collect customer funds through agents operating on their behalf, convert those funds into electronic money (e-money) and store them in customer stored value accounts to be used primarily for transactional purposes. Here, non-banks such as MNOs and other DFSPs can also offer payment and non-banking products, develop agent networks, build and manage technology platforms and use mobile network interface such as USSD for service delivery and access. Regulations are different to that for 'branchless banking.'<sup>19</sup> If a non-bank is allowed to provide service alone, usually manages the technology platform and runs an agent network with banks holding the overnight float.

In Nepal, there are provisions for non-bank PSPs and MFIs to provide payment-related services using electronic cards and telecommunication networks. In these models, non-bank PSPs are required to make an agreement with banks and financial institutions to either act as an intermediary and provide agent networks or technology platforms or hold float in a bank.<sup>20</sup>

### **Exhibit 1: The DFS Ecosystem**

## **2. Study Approach and Scope**

To gain an overall understanding of the DFS ecosystem in Nepal such as the key participants, evolution and the pressing challenges, country reports were assessed, and ecosystem participants were interviewed. Detailed reviews of legal documents pertaining to different aspects of DFS delivery were also conducted including but was not limited to the use of agents, consumer protection, market access, and risk management. Information in this study reflects research done from October 2017 to October 2018.

## **3. Background to Nepal**

Some 25% of the Nepalese population live below the poverty line, with a substantial difference in poverty levels among Nepal's various ethnic and caste groups, and between different regions of the country.<sup>21</sup> And, development challenges persist: there is an unemployment rate of 42%.<sup>22</sup>

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<sup>17</sup> Use of information and communications technologies and nonbank retail agents to provide financial services outside of traditional bank branches. The model aims to reduce cost of delivery and reach clients that are currently beyond the reach of traditional banking. Mobile phones and card-based networks are commonly used for branchless banking. Summarized from Pickens, M, Porteous, D & Rotman, S (2009) *Scenarios for Branchless Banking in 2020*, available at <https://goo.gl/bkmuTX>

<sup>18</sup> Using mobile phones to access bank accounts remotely. See Microsave (2014) *Understanding the Demand for Financial Services in Nepal*, available at <https://goo.gl/oDyrcc>

<sup>19</sup> *ibid*

<sup>20</sup> Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/LLDZ9o>

<sup>21</sup> 2018 data from USAID. See USAID (2018) *Economic Growth and Trade*, available at <https://bit.ly/1RtERTj>

<sup>22</sup> USAID (2018) *Economic Growth and Trade*, available at <https://bit.ly/1RtERTj>

As Nepal strives to achieve universal financial access by 2020, poverty has decreased while financial outreach has increased.<sup>23</sup> World Bank Findex data<sup>24</sup> shows that only 45.4% of the total adult population and 43% of the adult population in rural areas have an account at a bank or financial institution.<sup>25</sup> Use of financial products is also very low: 17.1% saved at a financial institution while some 13.6% borrowed from a formal institution, and only 16.3% of the adult population made digital payments.<sup>26</sup> There have also however been assumptions that 5% of the adult population actively use DFS, an increase from 1.1% in 2016, with at least 50 active agents per 100,000 adults.<sup>27</sup>

Mobile phone usage though has increased remarkably, with mobile phone penetration is now an impressive 132%.<sup>28</sup> Ncell, a Mobile Network Operator (MNO), reports that 52% of their customer base use smartphones.<sup>29</sup> Given that DFS has in other markets been used on low-cost feature phones using the text-based - and mobile coverage-sensitive<sup>30</sup> - Unstructured Supplementary Service Data (USSD)<sup>31</sup> as the primary user interface (UI), having an environment where a richer and more intuitive interface is available to provide DFS (and banking services) is welcomed.<sup>32</sup>

While rapidly evolving to an open model of non-bank and bank provision of services, the DFS ecosystem in Nepal is still largely based on branchless banking and mobile banking services with licensed banks at the center of all processes. NRB has also encouraged expansion of branchless banking and mobile banking services in regions with low financial access.<sup>33</sup> The World Bank's Global Findex<sup>34</sup> and GSMA DFS industry data<sup>35</sup> indicates that countries with a bank-centric<sup>36</sup> service provision have lower financial inclusion growth than those using an open-enabling model of DFS provision.

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<sup>23</sup> Atreya, B (2016) *Regulatory Perspective of Financial Inclusion in Nepal*, available at <https://goo.gl/5RaRjf>

<sup>24</sup> World Bank Group (2018) *The Global Findex Database*, available at <https://globalfindex.worldbank.org/>

<sup>25</sup> All numbers are a percentage of the total population above the age of 15. World Bank Group (2018) *The Global Findex Database*, available at <https://globalfindex.worldbank.org/>

<sup>26</sup> All numbers are a percentage of the total population above the age of 15. World Bank Group (2018) *The Global Findex Database: Nepal*, available at <https://bit.ly/2qfxkXa>

<sup>27</sup> MM4P (2016) *Nepal Annual Monitor*, available at <https://bit.ly/2MtdiSv>

<sup>28</sup> Nepal Telecommunications Authority (2018) *MIS Report*, available at <https://bit.ly/2EE07yO>

<sup>29</sup> New Business Age (2018) *52% of Ncell Customers Use Smartphones: Report*, available at <https://bit.ly/2RdcPpA>; Nepali Telecom (2018) *Smartphone Penetration in Nepal and its Impact*, available at <https://bit.ly/2PfJ4HF>

<sup>30</sup> On the role of mobile coverage for services provision, see Perlman, L & Wechsler, M (2018) *The Role of Mobile Coverage on Digital Financial Services*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

<sup>31</sup> For deeper technical insights into these technologies, see Perlman, L (2017a) *Technology evolution and innovation in DFS*, available <https://bit.ly/2CEufm>; and Perlman, L (2017b) *Technology Inequality: Opportunities And Challenges For Mobile Financial Services*, available at <https://bit.ly/2r7nznz>

<sup>32</sup> UNCDF (2018) *Building an In-House Mobile Money Platform*, available at <https://bit.ly/2FFXfRy>

<sup>33</sup> In 2017, there were 124,003 branchless banking customers, 976 branchless banking centers and 2.4 million mobile banking customers. Nepal Rastra Bank (2017) *Banking and Financial Statistics*, available at <https://goo.gl/vDSNsV>; NRB (2015) *Monetary Policy for 2015/16*, available at <https://bit.ly/2GFybX1>

<sup>34</sup> World Bank Group (2018) *The Global Findex Database 2017*, available at <https://globalfindex.worldbank.org/>

<sup>35</sup> GSMA (2018) *2017 State of the Industry Report on Mobile Money*, available at <https://bit.ly/2CKPLqF>

<sup>36</sup> Non-bank DFSPs/MMOs cannot operate independently, requiring a licensed bank to provide services.

Only recently has NRB started issuing licenses to non-bank PSPs and MFIs.<sup>37</sup> Non-bank institutions are now able to provide new and innovative payment products, set up expansive agent networks and develop partnerships, which may increase competition and expansion of financial services to the unbanked and underbanked.<sup>38</sup>

## **4. Ecosystem Participants**

### **4.1. Overview**

The DFS ecosystem generally consists of customers who use the services, providers who supply them, providers' support services and infrastructure needed to deliver them and regulators that develop policies, laws and regulations.<sup>39</sup> In Nepal, this translates to banks, financial institutions and payment service providers who provide DFS, mobile network operators and payment system operators who provide the backbone to operate these services and the NRB and the Nepal Telecommunications Authority (NTA) who regulate the ecosystem.

### **4.2. Regulatory Bodies**

#### **4.2.1. Overview**

As with most DFS systems worldwide, regulation fastens on a number of regulatory bodies. The primary regulators for DFS include the NRB, NTA, Consumer Protection Council, and the Competition Protection and Market Protection Board. To avoid regulatory gaps and arbitrage, coordination between appropriate regulatory bodies is necessary to clearly define the remit of each regulator.

#### **4.2.2. Nepal Rastra Bank<sup>40</sup>**

##### **4.2.2.1 Banking and Payment Services Department**

The NRB<sup>41</sup> is the monetary, regulatory and supervisory authority which regulates banks and financial institutions<sup>42</sup> such as licensed cooperatives, non-governmental organization, employee provident fund, citizen investment trusts, insurance companies and securities markets.<sup>43</sup> It guides monetary and financial policy and also provides banking services to the government and commercial banks.<sup>44</sup> The payment

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<sup>37</sup> Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/A9KrDo>. For the NRB announcement in the Nepali language, see <https://bit.ly/2SiwsOl>. The Himalayan Times (2018) *NRB allows MFIs to Obtain Licence for Digital Payment Service Provider*, available at <https://bit.ly/2D3g001>; See also MM4P (2016) *Nepal Annual Monitor*, available at <https://bit.ly/2MtdiSv>

<sup>38</sup> New Business Age (2017) *Financial Inclusion through Digital Finance: A UNCDF-MM4P Initiative*, available at <https://bit.ly/2x2kCBD>

<sup>39</sup> ITU (2016) *The Digital Financial Services Ecosystem*, available at <https://goo.gl/Bwv6jz>; Perlman, L (2018a) *The Digital Financial Services Primer*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

<sup>40</sup> On the role of central banks in DFS, see Perlman, L (2018b) *The role of the central bank in DFS*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

<sup>41</sup> The Nepal Rastra Bank Act 2002 provides independence and operational autonomy to NRB.

<sup>42</sup> Nepal Rastra Bank (2018) *Nepal Rastra Bank*, available at <https://www.nrb.org.np/>

<sup>43</sup> Rai, P & Supinit, V (2016) *A Study of Financial Sectors of Nepal and its Role in Economic Growth*, available at <https://goo.gl/CXL8y1>

<sup>44</sup> Rai, P & Supinit, V (2016) *A Study of Financial Sectors of Nepal and its Role in Economic Growth*, available at <https://goo.gl/8TnnYB>

systems department (PSD) regulates, supervises and oversees development of the payment and settlement systems, including PSPs and PSOs.<sup>45</sup>

It recently launched a ‘regtech’<sup>46</sup> Financial Inclusion Portal<sup>47</sup> to provide information and data on financial access and usage to assist regulatory bodies, financial service providers and infrastructure providers in making data-driven programs and policies for provision of financial access to rural area. There have also been commitments by the Nepalese government – particularly after the 2015 earthquake<sup>48</sup> - to better support DFS<sup>49</sup> and other electronic payments systems.<sup>50</sup>

#### 4.2.2.2 Financial Information Unit

The Financial Information Unit (FIU) within the NRB collects and analyzes information related to Anti-Money Laundering and Countering the Financing of Terrorism (AML/CFT).<sup>51</sup> They also enforce Customer Due Diligence (CDD)<sup>52</sup> requirements for reporting institutions.

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<sup>45</sup> Nepal Rastra Bank (2015) *Payment and Settlement Bylaw*, available at <https://goo.gl/PgjU2p>

<sup>46</sup> Perlman, L & Gurung, N (2018a) *Use of Regtech by Central Banks and its Impact on Financial Inclusion*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

<sup>47</sup> See [emap.nrb.org.np](http://emap.nrb.org.np). Himalayan Times (2018) *Data to help NRB, government develop plans for rural areas*, available at <https://bit.ly/2EILOJg>

<sup>48</sup> MM4P (2016) *Nepal Annual Monitor*, available at <https://bit.ly/2Q2E1Hs>. For more information on the Nepal earthquake 2015, See UNFPA (2016) *Highlights from Nepal Earthquake 2015: A Socio-Demographic Impact Study*, available at <https://bit.ly/2Q0LMhl>

<sup>49</sup> The delivery of basic financial services to the poor at greater convenience, scale and lower cost using technologies like mobile phones, electronic money models and digital payment platforms. Mobile money services- transfer of electronic money using mobile networks, mobile phones and agents- is a type of DFS. AFI (2018) *Digital Financial Services*, available at <https://bit.ly/2luOBGW>; CGAP (2018) *Digital Financial Services*, available at <http://www.cgap.org/topics/digital-financial-services>; ITU (2017) *Digital Financial Services Ecosystem*, available at <https://bit.ly/2S9tgEI> ; USAID (2013) *Mobile Money: Defined*, available at [http://pdf.usaid.gov/pdf\\_docs/PA00JQD5.pdf](http://pdf.usaid.gov/pdf_docs/PA00JQD5.pdf)

<sup>50</sup> A transfer of value using a payment instrument in digital format.

<sup>51</sup> The Association of Certified Anti-Money Laundering Specialists (ACAMS) defines AML as: ‘The system designed to assist institutions in their fight against money laundering and terrorist financing. At a minimum, the AML program should include (a) written internal policies, procedures and controls (b) a designated AML compliance officer; (c) on-going employee training; and (d) independent review to test the program. See ACAMS (2018) *AML Glossary of Terms*, available at <https://www.acams.org/aml-glossary/>; Government of Nepal (2008) *Asset Money Laundering Prevention Act*, available at <https://goo.gl/hkU21p>

<sup>52</sup> ACAMS defines CDD in terms of ML controls, as requiring ‘policies, practices and procedures that enable a financial institution to predict with relative certainty the types of transactions in which the customer is likely to engage.’ As part of CDD, providers it says should identify and verify the customer’s identity using reliable and independent sources; identify and verify the beneficial owner so as to know whether they are the actual parties of interest; obtain information on the purpose and intended nature of the business relationship; assess the risks associated with the business relationship; monitor transaction to check if it is consistent with the knowledge of the customer, their business and risk profile and conduct ongoing due diligence. FATF (2012) *The FATF Recommendations*, available at <https://bit.ly/1e7w0Gl>. Similarly, but in the context of financial inclusion, CGAP says CDD ‘involves identifying a client and verifying the client’s identity by checking his or her identity documentation or data and, where appropriate, conducting background and beneficial ownership checks. Clients are then profiled and their transactions are monitored to identify discrepancies that may trigger a suspicious transaction report to be filed with the country’s FIU.’ See Lyman, T & de Koker, L (2018) *KYC Utilities & Beyond: Solutions for AML/CFT Paradox?*, available at <https://bit.ly/2OqOgso>

#### 4.2.3. Ministry of Finance

The Ministry of Finance (MoF) has developed a Financial Sector Development Strategy 2015-2020 (FSDS) to improve financial access and inclusion in the banking system.<sup>53</sup> It encourages establishment of financial institutions in underserved areas and promotes branchless banking and mobile banking in rural areas and the implementation of microcredit and financial literacy programs.<sup>54</sup>

#### 4.2.4. Nepal Telecommunications Authority

The Nepal Telecommunications Authority (NTA) is the national telecommunications authority.<sup>55</sup> It grants licenses to operators, sets standards for equipment and services, ensures the quality of the services provided, and settles disputes between providers and between provider and customer. It also advises the government on telecommunication policy.<sup>56</sup> It does not have any oversight over non-bank PSPs who are not MNOs, but use mobile networks to provide financial services. From April 2016, mobile phone handset registration using IMEI numbers<sup>57</sup> became mandatory, allowing handsets and the transaction associated with it, to be linked to an identity.<sup>58</sup> This can potentially compliment AML/CFT goals of the NRB.<sup>59</sup>

#### 4.2.5. Consumer Protection Council<sup>60</sup>

The Consumer Protection Council was established under the Consumer Protection Act of 1998 to formulate policies and offer suggestions to the government for the protection of rights and interests of consumers.<sup>61</sup> The council is responsible for keeping consumers informed about their rights, prices, quality and quantity of goods and services.<sup>62</sup>

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<sup>53</sup> NRB (2013) *Financial Sector Development Strategy for Inclusive Growth*, available at <https://bit.ly/2sDvhht>

<sup>54</sup> *ibid*

<sup>55</sup> Nepal Telecommunications Authority (2018) *Nepal Telecommunications Authority*, available at <https://goo.gl/43uG8H>

<sup>56</sup> Nepal Telecommunications Authority (2018) *Nepal Telecommunications Authority*, available at <https://goo.gl/43uG8H>

<sup>57</sup> International Mobile Equipment Identity (IMEI) number can be used to track lost handsets. If someone loses their phone, their service provider can track the handset's location based on the IMEI number, even if the SIM card has been changed. The user, their identified handset and their DFS transactions hence can be tracked with required permission.

<sup>58</sup> Under the Interim Directives for the Implementation of NEIR-2072. See Mondato LLC (2016) *Digital Payment Systems, Mobile Money Services and Agent Banking: Bangladesh, Nepal and Sri Lanka*, available at <https://goo.gl/dXHWvk>

<sup>59</sup> On the role of telecommunication regulators in DFS, see also Perlman, L (2018c) *The role of the national telecommunications authority in DFS*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

<sup>60</sup> On the role of competition authorities in DFS, see Perlman, L (2018d) *The role of the competition authority in DFS*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

<sup>61</sup> Ministry of Law and Justice (1998) *Consumer Protection Act*, available at <https://goo.gl/2BLHZZ>

<sup>62</sup> *ibid*

#### **4.2.6. Competition Promotion and Market Protection Board**

The Competition Promotion and Market Protection Board enhances fair competition in the market.<sup>63</sup> It suggests competition policies to the government and raises public awareness about positive impacts of fair competition in economy.<sup>64</sup>

### **4.3 Market Participants**

#### **4.3.1 Overview**

The government and the central bank are moving from a bank-centric environment for financial service provision to a more enabling environment where non-banks can participate, providing licenses to non-bank PSPs and MFIs for digital payment-related services.

The ecosystem is in transition though, with a mix of restrictive and non-restrictive regulations still in effect, particularly around the use of agents. While there are new non-bank participants, the financial ecosystem still remains focused around mobile banking and recently, mobile wallets limited to payment activities. Given the legacy bank-centric environment, most PSPs in Nepal operate on behalf of banks, providing agent services as well as transactional services linked to banks accounts. Some also act independently based on new regulations, with their own wallets and transactional service offerings.

#### **4.3.2 Banks**

The NRB divides financial sector providers into 4 license classes primarily based on the products they provide, the users they cater to and their objectives, whether it be to provide financial services to small and medium businesses, develop different sectors in Nepal, carry out capital market activities, or deliver financial services to the poor.<sup>65</sup> Class A are Commercial Banks; Class B are Development Banks; Class C are Finance Companies; and Class D are Microcredit Development Banks.

As of 2017, there were 162 distinct bank and non-bank financial institutions and 4,894 branches, with most commercial bank branches concentrated in urban areas.<sup>66</sup> Both banks and non-bank financial institutions provide DFS. Yet, the ecosystem is still focused on banks providing mobile banking services through mobile applications and Short Message Service (SMS). Users are able to check balances, access statements, transfer amounts and receive transaction confirmation through SMS from financial institutions. In Nepal, there are 2.4 million mobile banking users, which is only around 12% of deposit accounts in banks and FIs in Nepal.<sup>67</sup>

#### **4.3.3 Payment Service Providers**

As noted above, some PSPs operate to provide services to banks in the bank-centric model of financial service provision. Since 2016 however following the issuance of new enabling regulations,<sup>68</sup> a number of

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<sup>63</sup> Government of Nepal (2007) *Competition Promotion and Market Protection Act (2007)*, available at <https://goo.gl/gmL53P>

<sup>64</sup> *ibid*

<sup>65</sup> Bank and Financial Institution Act 2006

<sup>66</sup> Nepal Rastra Bank (2017) *Banking and Financial Statistics*, available at <https://goo.gl/vDSNsV>

<sup>67</sup> *ibid*

<sup>68</sup> Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016

PSPs have been operating pilots<sup>69</sup> based on (independent)<sup>70</sup> non-bank provision of DFS allowed by the NRB.

NRB has only issued non-bank PSP license to eSewa and IME Digital's IME Pay.<sup>71</sup> eSewa and IME Pay are both digital wallets that provide account-to-account transfers, utility bill payments, and account-to-merchant payments across banks in the network using its web portal and mobile application.<sup>72</sup> Accounts can be topped up using prepaid cards, credit/debit cards, from bank accounts in member banks and financial institutions, and at kiosks/outlets/agents.<sup>73</sup> Users who do not complete the Customer Identification and Verification (CIV) process<sup>74</sup> have restricted access to services and limited transaction thresholds.<sup>75</sup> Recently, there have been provisions for MFIs to obtain licenses for digital payment-related services as well, but no licenses have been given as of now.

#### 4.4 Mobile Network Operators

The Nepal Telecommunications Authority (NTA) has licensed 13 network service provider licenses,<sup>76</sup> of which 4 are MNOs. Two have majority market share: Nepal Telecom Company (NTC)<sup>77</sup> and Ncell,<sup>78</sup> at 51% and 42% respectively.<sup>79</sup> Generally though MNOs act as providers of SIM cards and subsequent mobile coverage that enables DFS, and where given consent, can act as providers of payment-related services for which they are required to set up a subsidiary.<sup>80</sup>

#### 4.5 Payment System Operators

Payment System Operators (PSO) are entities that perform processing, routing/switching, operations, control and clearing of payment-related activities including, but not limited to, clearing houses, and institutions/mechanisms operating electronic or payment networks.<sup>81</sup> PSOs provide necessary payment

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<sup>69</sup> These include eSewa, IME Pay, MoCo and Prabhu.

<sup>70</sup> That is, not dependent on a mandated partnership with a bank.

<sup>71</sup> For the NRB announcement in the original Nepali language, see <https://bit.ly/2oYOsji>

<sup>72</sup> For more information on eSewa and IME Pay, see [www.imepay.com.np](http://www.imepay.com.np); [www.esewa.com.np/#/home](http://www.esewa.com.np/#/home)

<sup>73</sup> eSewa (2018) *Getting Started*, available at <https://blog.esewa.com.np/getting-started>; IME Pay (2018) *How It Works*, available at <http://www.imepay.com.np/how-it-works/2/>

<sup>74</sup> ACAMS defines KYC as: 'AML policies and procedures used to determine the true identity of a customer and the type of activity that is 'normal and expected,' and to detect activity that is 'unusual' for a particular customer.' ACAMS (2018) *AML Glossary of Terms*, available at <https://www.acams.org/aml-glossary/>

<sup>75</sup> IME Pay (2018) *What is my transaction limit on my IME Pay?*, available at <https://bit.ly/2qiOaVv> ; Mercantile Exchange Nepal Limited (2018) *Manual for E-Sewa Account Users*, available at <https://bit.ly/2D9kDpB>

<sup>76</sup> These include Ncell, NTC, Smart Telecom Pvt. Ltd, Nepal Satellite Telecom Pvt. Ltd, United Telecom Limited, and C.G.Communication Pvt.Ltd

<sup>77</sup> Nepal Telecommunications Corporation, the first MNO in Nepal, was formally established as a fully owned Government Corporation and later transformed into Nepal Doorsanchar Company Limited (NDCL). It is still commonly known as Nepal Telecom or NTC. Nepal Telecom (2018) *Nepal Telecom*, available at <https://www.ntc.net.np/pages/view/nepal-telecom>

<sup>78</sup> Ncell is the first privately owned MNO in Nepal, with a majority stake owned by Axiata Group. Ncell (2017) *About Us*, available at <https://goo.gl/uSDY81>

<sup>79</sup> Nepal Telecommunications Authority (2018) *MIS Report*, available at <https://bit.ly/2EE07yO>

<sup>80</sup> Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/A9KrDo>

<sup>81</sup> NRB (2018) *Payment System Oversight Framework*, available at <https://bit.ly/2D3sMfb>

infrastructure and processes for PSPs and create new opportunities for PSPs, for example, to leverage on the PSO's network of banks and financial institutions. PSO licenses have been issued by NRB to Prabhu Technology, Nepal Clearing House Limited (NCHL) and Smart Choice Technologies.<sup>82</sup>

## 5 Regulatory Environment for Provision of Financial Services

### 5.1 Overview

Regulations encouraging non-bank e-money issuance, use of agents by DFSPs, risk-based CDD and consumer protection tailored for DFSPs and their products are needed to develop an enabling environment for DFS.<sup>83</sup> With the DFS landscape rapidly changing and expanding to include more users, providers and technologies, guidelines need to be developed and revised, especially in conjunction with the relevant regulators, NRB, the NTA, and the Consumer Protection Council. The current regulations address many aspects of the DFS ecosystem, but lack clarity in the regulations as it applies to DFS.

### 5.2 Non-bank Payment Service Providers

While the DFS market has opened to new providers other than banks, there are still numerous administrative requirements before final approval, including passing NRB's Fit and Proper Test.<sup>84</sup> Once licensed to provide payment services, non-bank PSPs can carry out transactions using electronic cards or through a MNO.<sup>85</sup> PSPs operating business through mobile networks need to maintain paid up capital of NRs 10 million (USD 92,000) and hold an electronic money float<sup>86</sup> equivalent to customer funds which are settled in real-time.<sup>87</sup> The float value can be deposited at the settlement bank, as individual accounts for each DFSP customer, or as a lump 'pooled' sum.<sup>88</sup> These requirements, however, differ from those which apply to banks and financial institutions that provide payment-related services.

### 5.3 Mobile Network Operators

NRB's new open licensing approach allows MNOs to offer payment-related services. No licenses have been issued as yet. MNOs must create a subsidiary firm specific for payments-related services. MNOs are also required to submit a commitment letter guaranteeing that they will provide non-discriminatory access to telecommunication channels – such as for USSD - to other PSPs operating on their network.

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<sup>82</sup> For NRB announcement in Nepal, see <https://bit.ly/2oYOsji>

<sup>83</sup> CGAP (2017) *Policy Making and Digital Financial Services*, available at <https://goo.gl/QCFHfL>; ITU (2016) *Regulation in the Digital Financial Services Ecosystem*, available at <https://goo.gl/2kRiZQ>

<sup>84</sup> A test to assess of competence and capability, honesty, integrity, fairness, ethical behavior, and Financial soundness of applicant with regards to the license in question. See international Organization of Securities Commission (2009) *Fit and Proper Assessment- Best Practices*, available <https://bit.ly/2tMJN6r> ; Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/LLDZ9o>

<sup>85</sup> Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/LLDZ9o>

<sup>86</sup> The total outstanding value of the e-money issued by the issuer. See Alliance for Financial Inclusion (2016) *Digital Financial Services Basic Terminology*, available at <https://goo.gl/RTKpYV>

<sup>87</sup> Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/LLDZ9o>; Nepal Rastra Bank (2015) *Payment and Settlement Bylaw*, available at <https://goo.gl/PgjU2p>

<sup>88</sup> Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/LLDZ9o>

Given the evolving regulations and policies of both the NRB and the NTA, the role of the MNOs in DFS provision still remains unclear. It is also not clear what role the NTA would play in regulating DFS provided by MNOs given that there is no MOU on DFS between the NTA and NRB.<sup>89</sup>

#### 5.4 Micro Finance Institutions

MFIs can also now apply for licenses for DFS provisions. As they play a major role in providing financial services to the poor in rural areas, NRB hopes they will service population areas not necessarily serviced by banks and other PSPs.

#### 5.5 Agents

The cost of establishing bank branches is high, especially in rural areas. Introduction of agents in the DFS ecosystem has been found to expand provision of services in these areas by providing access to services for existing customers and supporting new customers in opening accounts.<sup>90</sup>

Banks do not need approval from the NRB for agent-based branchless banking<sup>91</sup> but have to submit documentation outlining the criteria for selecting agents; the agreement with each selected agent; and the training provided to each agent.<sup>92</sup>

For non-bank PSPs, the NRB must however approve all their agents and sub-agents.<sup>93</sup> PSPs must supply business and personal details of their agents, their authority, their functions and their AML obligations. Agents themselves must also maintain a minimum-security collateral,<sup>94</sup> with other risks related to agents mitigated through a rigid selection criteria and training.<sup>95</sup> The process of training and selecting agents and associated costs for both banks and non-bank PSPs however creates barriers for establishing a ubiquitous, national agent network. It is particularly challenging for non-bank PSP startups to cover high costs of developing agent networks and to compete with established businesses such as remittance service providers with existing agent networks. Existing PSPs are, however, investing in agents training and

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<sup>89</sup> See Perlman, L (2018e) *Model MOU Between a central Bank and National Telecommunications Authority For Digital Financial Services Regulation*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

<sup>90</sup> Davidson, N & Leishman, P (2011) *Building, Incentivising and Managing a Network of Mobile Money Agents: A Handbook for Mobile Network Operators*, available at <https://bit.ly/2HMFjBC> ; CGAP (2018) *Agent Networks*, available at <https://bit.ly/2tDbE8V>

<sup>91</sup> Agent-based branchless banking is the provision of banking and financial services via agents and does not have to use mobile money. The Payment Systems Department of the NRB, created in 2015, is responsible for digital and Mobile Payments, usually the functions of PSPs, while Branchless Banking is the responsibility of the Regulation department. Mondato LLC (2016) *Digital Payment Systems, Mobile Money Services and Agent Banking: Bangladesh, Nepal and Sri Lanka*, available at <https://goo.gl/dXHWvk>

<sup>92</sup> Mondato LLC (2016) *Digital Payment Systems, Mobile Money Services and Agent Banking: Bangladesh, Nepal and Sri Lanka*, available at <https://goo.gl/dXHWvk>

<sup>93</sup> Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/LLDZ9o>

<sup>94</sup> *ibid*

<sup>95</sup> CGAP (2008) *Regulating Transformational Branchless Banking: Mobile Phones and Other Technology to Increase Access to Finance*, available at <https://goo.gl/qg1xWi>; ITU (2016) *Regulation in the Digital Financial Services Ecosystem*, available at <https://goo.gl/2kRiZQ>

expansion: IME Pay, for example, has a network of 13,500+ touchpoints which include 7,000+ remittance agents.<sup>96</sup>

## 5.6 Customer Identification and Verification

The NRB is following FATF's risk-based approach (RBA)<sup>97</sup> for CIV. The RBA has been crucial in providing financial services to customers who do not have proper identification documents, an issue that was even more heightened after the 2015 earthquake with its massive loss of life and property, including destruction of key parts of the NRB infrastructure.

Bank-centric PSPs follow their partner bank's CIV requirements, which for individuals means collection of name, family name, copy of citizenship/passport and proof of address.<sup>98</sup> CIV checks can be done at a bank when the bank account is opened. For branchless banking and DFS through non-bank PSPs, agents can perform these checks.<sup>99</sup>

NRB issued a directive that outlines the transactions limits for DFS transactions, which sets a monthly cap of NRs. 25,000 (USD 250) for DFS-type wallet accounts.<sup>100</sup> But these limits can be exceeded if users make a payment to the amount billed by a merchant - unless the user is unverified. Bank-centric services such as mobile banking and internet banking however have a higher monthly cap.

As noted above, the NRB has allowed a Simplified Due Diligence (SDD)<sup>101</sup> scheme for low-value payments - usually NRs. 500 (USD 5) per day and NRs. 5000 (USD 50) per month<sup>102</sup> - where the

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<sup>96</sup> New Business Age (2018) *IME Pay Announces Introduction of B2B Services*, available at <http://www.newbusinessage.com/Articles/view/7525>

<sup>97</sup> In an attempt to ensure that AML/CFT provisions FATF promoted do not unduly hinder access to formal financial services to the underserved and unbanked, it issued a 'guidance' in 2013 to balance, it hoped, both financial inclusion and AML/CFT objectives. It introduced what is now known as FATF's RBA. RBA affects several different aspects of CIV and CDD processes in AML/CFT for financial inclusion environments by having as its *grundnorm* the premise that risk management and mitigation measures should be proportionate to the identified and assessed risks. FATF (2017) *Anti-Money Laundering and Terrorist Financing Measures and Financial Inclusion with a Supplement on Customer Due Diligence*, available at <https://bit.ly/2taubZM>

<sup>98</sup> Government of Nepal (2008) *Asset Money Laundering Prevention Act*, available at <https://goo.gl/wp1vfP>

<sup>99</sup> They are subject to the Asset (Money) Laundering Act of 2008.

<sup>100</sup> For the NRB directive in the original Nepali language, see <https://bit.ly/2yA3QYH>

<sup>101</sup> SDD is characterized by a simplified CDD process for customers with a low risk profile. Less information or less robust verification of the customer's identity and their intentions behind the business relationship may be required or verification may be postponed. It can ease difficulties for people to access financial services. FATF (2014) *Guidance for Risk-based Approach: The Banking Sector*, available at <https://bit.ly/1thpYyY>; FATF (2017) *Guidance On AML/CFT Measures and Financial Inclusion, With A Supplement on Customer Due Diligence*, available at <https://bit.ly/2wLMObN>

<sup>102</sup> IME Pay (2018) *What is my transaction limit on my IME Pay?*, available at <https://bit.ly/2z6LLkK>; eSewa (2018) *Revision of Transaction Limits*, available at <https://blog.esewa.com.np/revision-in-transaction-limits>. For NRB's announcement in Nepali, see <https://bit.ly/2yA3QYH>

simplified CIV requirements can be fulfilled by the provision of just the customer's mobile phone number. Users are considered unverified but are still able to transact within the limits.<sup>103</sup>

Regardless of whether the customer is verified or unverified, PSPs are required to store CIV data in a prescribed format and transactions records for at least five years from the date of transaction.<sup>104</sup> They are also required to inform the FIU of any suspicious activity.<sup>105</sup>

## 5.7 Consumer Protection

NRB has issued consumer protection regulations on maintaining quality of services, preventing unethical practices and ensuring transparency in the financial sector. Licensed PSPs have to inform customers about service fees charges every six months. Detailed information about service fees must be submitted to the NRB's Payments Systems Department.<sup>106</sup> PSPs are also liable for any payment-related services, whether it is conducted by them, their staff, their agents or an outsourced entity.<sup>107</sup>

Without specific consumer protection regulations for DFS however, it is unclear where to submit complaints in the DFS ecosystem. Even with such regulations, communication of consumer rights is rather difficult when the customer base is diverse, and where literacy, language and skill vary. The regulators also have not reached any consensus on what communication mediums should be used, and whether it is the responsibility of the regulators to identify and enforce consumer protection provisions.

## 6 Challenges for Financial Access Provision and Adoption

### 6.1 Overview

Given the high mobile and smartphone penetration in the country, there are immense opportunities for mobile financial service provision and DFS in Nepal. Regulators are also slowly becoming more open to non-bank led innovations and acceptance of external support from donors and consultants. There are however significant challenges for provision of financial services including, establishment of physical branches in each local unit, lack of access to a national ID<sup>108</sup>, and lack of coordination amongst regulators.

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<sup>103</sup> Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/LLDZ9o>

<sup>104</sup> Government of Nepal (2008) *Asset Money Laundering Prevention Act*, available at <https://goo.gl/wp1vfP>; Mondato LLC (2016) *Digital Payment Systems, Mobile Money Services and Agent Banking: Bangladesh, Nepal and Sri Lanka*, available at <https://goo.gl/dXHWvk>

<sup>105</sup> Payment and Settlement service operating institutions need to follow the Money Laundering Prevention Act-2007, the Money Laundering Prevention Bylaw-2009 and other similar laws, bylaws, policies and circulars issued by the NRB. See Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/LLDZ9o>

<sup>106</sup> Nepal Rastra Bank (2016) *Licensing Policy for Institution/Mechanism Operating Payment Related Activities-2016*, available at <https://goo.gl/LLDZ9o>

<sup>107</sup> *ibid*

<sup>108</sup> On electronic IDs and CIV, see Perlman, L & Gurung, N (2018c) *Focus Note: The Use of eIDs and eKYC for Customer Identity and Verification in Developing Countries: Progress and Challenges*, available at [www.dfsobservatory.com](http://www.dfsobservatory.com)

## 6.2 Physical Branches for Access

A recent development is the division of the country into new districts: the Ministry of Federal Affairs and Local Development divided the country into 753 local units,<sup>109</sup> and each local unit is required to have a commercial bank branch, ostensibly so that there is a physical branch to disburse G2P social payments.

This rollout has been controversial and slow: while NRB issued a directive asking commercial banks to establish branches in 243 local units by May 2018 and 116 local units by July 2018,<sup>110</sup> targets were not met although no penalties were levied for non-compliance.<sup>111</sup> Banks have also raised concerns regarding the lack of infrastructure - such as roads, electricity and internet - in many of these local units to support the functioning of branches.<sup>112</sup>

The banks have said that building and operating brick and mortar branches in a country with geographical diversity, dispersed population and limited infrastructure imposes large capital costs on them. USAID claims that DFS and mobile agents can be used to acquire new customers at a lower cost than branches and transactions through a mobile agent can be performed at 5% of the cost of transactions through branches.<sup>113</sup> NRB says it will provide financial and regulatory support in setting up these new bank branches by ensuring that all government transactions are provided through these banks to rural locations; by providing interest-free loans to these banks; and restricting other banks from opening a branch in these local units for at least three years.<sup>114</sup>

This ‘protection’ is controversial since not only has NRB committed to effectively securing monopoly power to these specific banks as a way to incentivize expansion, but a group of 27 commercial banks have also collectively decided on specific local units to establish branches, which is likely to affect competition in the provision of financial services in rural areas.<sup>115</sup>

## 6.3 Service Access and Offerings

Most DFS-type services in Nepal are application-based services requiring a smartphone with some banks and non-bank PSPs providing SMS and Interactive Voice Response (IVR)<sup>116</sup> features. With relatively high smartphone penetration in Nepal, the impact of application-based DFS can be seen in urban and semi-urban areas and could potential trickle down to rural areas. In many developing countries however USSD has been an effective medium of DFS delivery to feature phone users,<sup>117</sup> and similarly could expand the

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<sup>109</sup> The Himalayan Times (2018) *Banking the Unbanked: Ensuring Financial Inclusion*, available at <https://bit.ly/2CDMXiN>

<sup>110</sup> *ibid*

<sup>111</sup> *ibid*

<sup>112</sup> *ibid*; ekantipur (2017) *Banks urged to set up branches in local units*, available at <https://goo.gl/BEyk1t>

<sup>113</sup> USAID Nepal (2013) *Transforming Rural Economies through Mobile Banking*, available at <https://goo.gl/UPe2Ve>

<sup>114</sup> myRepublica (2017) *Commercial banks agree to open branches in 250 local units*, available at <http://www.myrepublica.com/news/23215/>

<sup>115</sup> *ibid*

<sup>116</sup> IVR allows technology and humans to interact using voice and tone inputs via a keypad.

<sup>117</sup> See Perlman, L (2017) *Technology Inequality: Opportunities and Challenges for Mobile Financial Services*, available at <https://bit.ly/2r7NZNy>

scope for impact in Nepal. It is thus useful to use USSD – the ‘third universal app’<sup>118</sup> - for DFS user interface access since this makes DFS accessible to users of basic and feature phones characteristic of the poorer populations segments in Nepal.

The lack of clarity on the role of the telecom sector in DFS delivery and financial inclusion has however restricted the use and roll out of USSD. But with the provision of licenses to MFI for digital payment-related services and MFI’s inherent objective to provide financial services to the poor, demand and pressure to use USSD could potentially increase, leading to the roll-out of USSD, whether it be through regulatory actions or profit-making activities of the MNOs.

#### **6.4 Identification and Verification Issues**

The Nepalese citizenship certificate<sup>119</sup> and passport are the primary forms of identification required to open bank accounts, obtain a SIM card and comply with CIV requirements for DFS. The citizenship certificates system currently in use is paper based, manual and hard to access.<sup>120</sup> There are concerns over fake certificates, verification and record keeping.<sup>121</sup> A national ID project to set up a biometric electronic national ID (eID) system began in 2008 but has been delayed<sup>122</sup> due to political instability and concerns regarding technology adoption and connectivity.<sup>123</sup> As part of the enrollment process, the government in 2016 distributed national IDs to 117,000 citizens over 18 months.<sup>124</sup> The enrollment process for national eIDs to be distributed all over Nepal is expected to take 5 years.<sup>125</sup>

As noted earlier, although there is SDD in place allowing users to open (DFS) accounts operated by non-bank PSPs using just their mobile phone number as ID, transactions limits are restricted and are significantly lower.<sup>126</sup> And while CIV requirements used for SIM card registration qualify for SDD for opening basic DFS accounts, since MNOs are not yet providing DFS, there may be gaps in the sharing of CIV information between MNOs and DFSPs and questions relating to the robustness MNO’s CDD processes which do not fall under the mandate of the NRB.

#### **6.5 Lack of Coordination**

There have been concerns regarding lack of adequate coordination between regulators. In particular, the role of the NTA in financial access provision is unclear. This has led to issues with restrictions by MNOs on access to USSD. There have however been discussion among ecosystem participants and commitments from regulators such as NRB and NTA to develop and revise the DFS guidelines to prohibit discrimination

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<sup>118</sup> Perrier, T, DeRenzi, B & Anderson, R (2015) *USSD: The Third Universal App*, available at <https://bit.ly/2vA3Skc>

<sup>119</sup> The only document which proves Nepalese citizenship and which is required to obtain other identification documents

<sup>120</sup> Adhikari, G (2011) *National ID Project of Nepal: Future Challenges*, available at [dl.acm.org/ft\\_gateway.cfm?id=2072151](http://dl.acm.org/ft_gateway.cfm?id=2072151)

<sup>121</sup> *ibid*

<sup>122</sup> *ibid*

<sup>123</sup> *ibid*

<sup>124</sup> myRepublica (2016) *Govt to distribute 117,000 biometric IDs in next 18 months*, available at <http://www.myrepublica.com/news/3966/>

<sup>125</sup> *ibid*

<sup>126</sup> eSewa (2018) *Revision of Transaction Limits*, available at <https://blog.esewa.com.np/revision-in-transaction-limits>

and anti-competitive behaviour in USSD access. Similarly, there have also been ongoing discussions on NTA issuing license for non-MNOs to provide service using mobile networks.<sup>127</sup> There is however no MOU between the NTA and the NRB on how to coordinate policy in relation to providers, security, consumer protection and anti-competitive behaviors.<sup>128</sup>

## 7 Role of Donors and Agencies

Critical to the development of a financial infrastructure in Nepal has been the close involvement of donors and agencies providing technical assistance. This role is particularly important post the devastating earthquake of 2015 which also destroyed significant portions of the NRB complex. Projects such as UNCDF MM4P<sup>129</sup> and the UNNATI Access to Finance<sup>130</sup> are actively working with regulators and DFSPs to build their capacity on many aspects like DFS market coordination, strategy and pilot development and setting up strong agent networks.<sup>131</sup> USAID also has a significant presence in Nepal.

## 8 Conclusions

The DFS ecosystem in Nepal has taken numerous strides forward. Banks, financial institution and PSPs have developed technologies that not only meet the needs of their customers but also expand their customer base.

This study emphasizes the need: (i) for a multi-industry approach with more collaboration among multiple regulators to develop harmonized policies and regulations; and (ii) to harness opportunities and provide suitable infrastructure and tools for accessible, affordable and safe DFS delivery specifically in Nepal and other countries with financial inclusion agendas in general.

The ecosystem though still faces contextual challenges and policy concerns including, but not limited to, the lack of incentives for DFS adoption, accessibility of DFS products for feature phone users and availability of supporting infrastructure for DFS delivery. Most importantly, there is a need for coordination amongst the involved regulators to clarify their roles and responsibilities in the DFS ecosystem and reduce regulatory arbitrage. These challenges highlight the importance of coordination among regulators to not only prevent regulatory arbitrage but also to identify opportunities and incentives for DFS provision and ensure availability of proper infrastructure, tools and services required for DFS delivery in Nepal as well as generally in developing nations.

The lack of clarity has hindered growth through, for example, the lack of access to USSD for PSPs, and subsequently, lack of access to DFS for feature phone users. Coordination and collaboration can simply take the form of open discussions or formally as an MoU, which may take time and require an external mediator to ensure that the objectives to promote financial inclusion through DFS is recognized rather than just individual objectives of the regulators.

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<sup>127</sup> IFC (2013) *IFC Mobile Money Scoping Country Report: Nepal*, available at <https://goo.gl/LPxkg8>

<sup>128</sup> On competition aspects of DFS, see Perlman, L (2017c) *Competition Aspects of Digital Financial Services*, available at <https://bit.ly/2xxLcma>

<sup>129</sup> For more information on MM4P, see <http://www.uncdf.org/mm4p/nepal>

<sup>130</sup> For more information on UNNATI, see <https://bit.ly/2EVsb0C>

<sup>131</sup> MM4P (2016) *Nepal Annual Monitor*, available at <http://www.uncdf.org/article/2337/nepal-annual-monitor-2016>

DFS provision by non-banks in Nepal is also legally limited to payment-related services. It can however grow further with provision of verifiable and robust national ID to all citizens. The cost associated with developing a new national ID system, ideally with biometric identifiers, is definitely a large burden to developing countries like Nepal and as observed, the progress is slow. Digitization in both the public and private sector will however create opportunities for better CIV and also generate data on customer's activities and preferences, which can open up new opportunities for DFS use other than payment-related services. It is evident that for diverse range of DFS products to emerge and to promote complete financial access at low costs using DFS, regulatory provisions for non-banks to provide these services as well as supporting regulations to ensure consumer protection in such contexts is required.

The recent changes in regulations supporting digital payments by non-banks and development of technologies for data-driven policymaking signals that NRB is not completely conservative in their approach to supervision and oversight. This may be a signal to the marketplace that the NRB is open to consideration of new, beneficial innovation, such as via the introduction of a regulatory sandbox -- a platform for controlled testing and deploying beneficial innovation which may otherwise have been stifled by regulatory uncertainty. Regulatory sandboxes can also promote knowledge sharing and capacity building among regulators and DFSPs. As a whole, it can also promote innovation and encourage new entrants in the marketplace.<sup>132</sup> Better understanding of these technologies may encourage regulators to develop regulations and policies that manage risks without hindering innovation.

While there is still room for DFS provision in rural areas even with the establishment of monopolized bank branches, focus on DFS initiatives not just limited to payment-related services can be a more cost-effective way to achieve the objectives of financial inclusion and access. It is also equally important to have a robust National ID to not just reduce risk of ML for DFSPs but also provide quick and reliable CIV and CDD process for users and access to expansive financial services.

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<sup>132</sup> See Wechsler, M, Gurung, N & Perlman, L (2018) *The State of Regulatory Sandboxes in Developing Countries*, available from [www.dfsobservatory.com](http://www.dfsobservatory.com)