Digital Finance *for* Development

A HANDBOOK FOR USAID STAFF

U.S. GLOBAL DEVELOPMENT LAB Powered by USAID

fhi360 THE SCIENCE OF IMPROVING LIVES

Foreword from the Administrator

Access to finance remains among the most common and most intractable of development challenges, stifling enterprise and undermining the ability of families to lift themselves out of extreme poverty. Excluded by the formal financial systems, those at the base of the economic pyramid live almost entirely in a cash economy, without access to saving accounts to help pay for school fees or loans to grow their business. These barriers constrain progress in nearly every part of development—from education to health to growing more and better food. By enabling the 2.5 billion unbanked people worldwide access safe, affordable financial tools, we can help provide a means of escape from the financial traps that keep far too many in extreme poverty.

The remarkable proliferation of mobile phone networks across the developing world—coupled with a subtle but radical reimagination of the business model behind financial services—presents a powerful opportunity to advance financial inclusion and build new market systems. Electronic payments systems that leverage the broad reach of mobile networks—especially among the rural poor—form the foundation of an increasing array of digital financial services. A growing body of evidence demonstrates that e-payment services, such as mobile money, not only make financial transactions more affordable, efficient, and transparent, but also build the capacity of individuals to power their own financial future.

These findings have significant implications for us as a development community. USAID is committed to accelerating the growth of inclusive electronic payment systems around the world. Collaboration with you is critical to delivering results on a meaningful scale. This Handbook enables us to collectively improve the way we do business, by replacing the use of cash with inclusive electronic payment methods and driving the growth of these essential services.

This resource, co-created by USAID and FHI 360, was inspired and informed by our shared experiences in the field. We welcome feedback as we learn together how to best embrace and advance President Obama's vision of ending extreme poverty in the next two decades.

Rajiv J. Shah
Administrator, U.S. Agency for International Development

USAID
FROM THE AMERICAN PEOPLE

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INTRODUCTION
Digital Financial Services for Development

This handbook is designed to enable USAID personnel to maximize the Agency's use of and contribution to the growth of digital financial services in emerging markets around the world. As an Agency, we bring significant comparative advantages to the collective effort required to build out financial services and market infrastructure that serve the poor and create pathways out of poverty.

Our determination to accelerate the growth of financial infrastructure is rooted in the Agency's long-standing commitment to broadening access to finance. The remarkable growth of commercially-provided connected technologies such as mobile telephony and, increasingly, the Internet presents a compelling opportunity to build on USAID's proud legacy in microfinance and reach the poor at a scale not previously possible.

Broadly speaking, opportunities to exercise our influence in a coordinated way include:

- Policy Advocacy: Organizing the U.S. government around an agenda to promote smart regulations and policies that will enable safe but robust growth of digital financial ecosystems. This often means engaging with central bankers and policymakers at ministries of finance, as well as ICT regulators. USAID's voice can be powerful, and our attention to consumer protection and system safeguards is key.
- Fostering Demand for Digital Financial Services: Leveraging the Agency's economic footprint to help build institutional demand for digital financial services. By encouraging implementing partners to use digital financial services, USAID can help drive adoption by other institutions with significant payment flows, including governments, donors, and companies.

In 2012, USAID co-founded the Better Than Cash Alliance to spark a global effort to accelerate the growth of electronic payments and broader digital financial services to empower people and grow emerging economies. Our institutional commitment to the Alliance manifests itself through our partners' adoption of digital financial services in their field operations and programs, and the integration of best practices to solving financial access through sectoral strategies. As of July 2014, the Alliance has 19 members, including six governments.

- Collaboration with Service Providers: Digital finance is a new industry, and banks, mobile network operators, and third-party providers all have a role to play. USAID is uniquely positioned to spur investment in public goods that benefit service providers without distorting commercial markets or "picking winners."

This handbook explores practical ways in which you can use some or all of these levers to advance digital financial services in support of USAID's mission: partnering to end extreme poverty and to promote resilient, democratic societies.

What does this handbook enable me to do?

To understand how to identify, assess, and act upon opportunities to use inclusive digital financial services (like mobile money) in USAID programs. The Handbook is designed for use across the Agency, though content is often framed with a Mission perspective. We designed the handbook so that you don't need to read all of it. Each section begins by identifying the target audience and objectives so that you can just read the parts most relevant to you.

Why does USAID see value in strengthening and using inclusive digital financial services?

Access to finance is not a banking challenge. It's a livelihoods challenge and an empowerment challenge that cuts across all sectors (particularly with respect to gender and rural communities). If we resolve this challenge, we can transform lives by improving economic resilience and creating new market opportunities. Although evidence substantiates the importance of financial inclusion to broad-based development, many of the world's poor remain excluded from financial services because they are simply too expensive to deliver through traditional banking models (see Figure 1). But the prospects for deepening financial inclusion are bright for two reasons:

1. the incredible, rapid growth of connected technologies, especially mobile telephone infrastructure; and

2. the advent of branchless banking models that, when paired with the mobile phone, can make a host of useful services and products possible (after all, what's a mobile but a hand-held computer, enabling direct, two-way communication and providing the transaction data with which to assess risk and understand user needs and preferences).

Low access to finance **+** increasing mobile access **+**
new digital financial service ecosystems **=**

a great opportunity for financial inclusion, avenues for growth,
and channels for useful products and services.

Together, these two elements constitute a key market infrastructure for a new, highly accessible digital economy that upends long-standing constraints to traditional business models. The value of this market infrastructure—digital financial services—is apparent in at least three broad ways: (1) reducing loss (tied to theft, time, corruption, and business processes); (2) increasing social protection (by enabling fast, secure transfers and extending saving, insurance, and credit services); and (3) creating new market opportunities (for new business models, products, and services in every sector).

A central message of this handbook is that a digital financial services ecosystem is a key means to many ends. In addition to helping to expand financial inclusion, it can also be used as a channel to achieve other development outcomes. For example, it can be used to facilitate conditional cash transfers aimed at increasing school attendence, improve agricultural yields for smallholder farmers, and extend the reach of critical services such as power and water.

As technological innovation and regulatory flexibility facilitate the development of new business models and expand competition, hundreds of providers around the world are developing and scaling up mobile money services in an effort to attract and retain customers (see Figure 2).

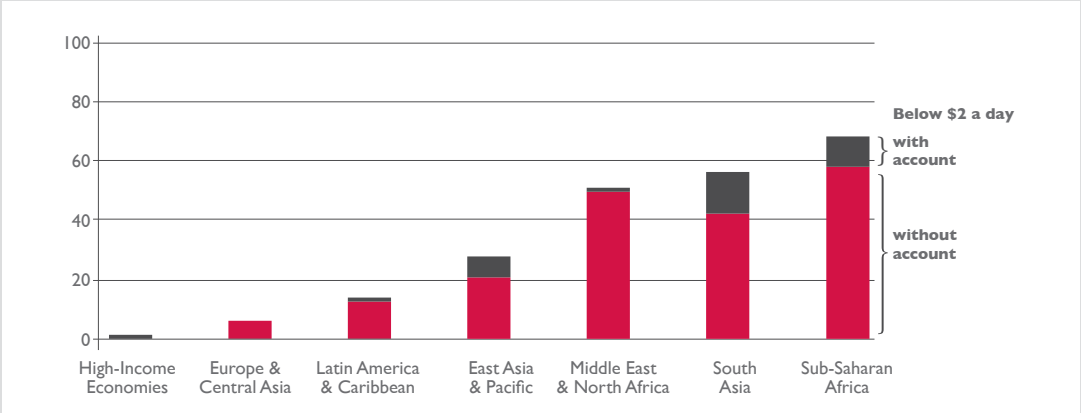
Of the 219 mobile money services live at the end of 2013, 70 percent expect to increase investment in service roll-out in 2014, and dozens of innovative businesses, particularly in energy and water, health, agriculture, and finance are already operating on these new platforms for innovation.

As development professionals, we have a role to play in helping to ensure that as these ecosystems develop, they offer real value to the poor. We should all think about what we can do to help

FIGURE 1

Formal bank account penetration among the poorest

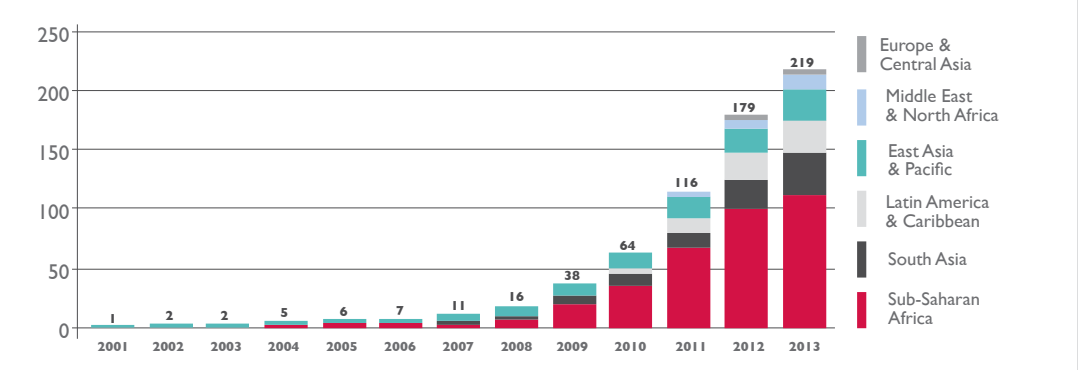
Adults living on less than $2 a day by whether with or without a formal account (as % of all adults)



Source: *Measuring Financial Inclusion The Global Findex Database, World Bank (2012)*

FIGURE 2

Number of Live Mobile Money Services for the Unbanked by Region (2001–2013; year end)



Source: *State of the Sector*: 2013, GSMA (2014)

leverage this new financial infrastructure to foster entrepreneurship, promote product and service innovation, and improve development outcomes.

How should I use this handbook?

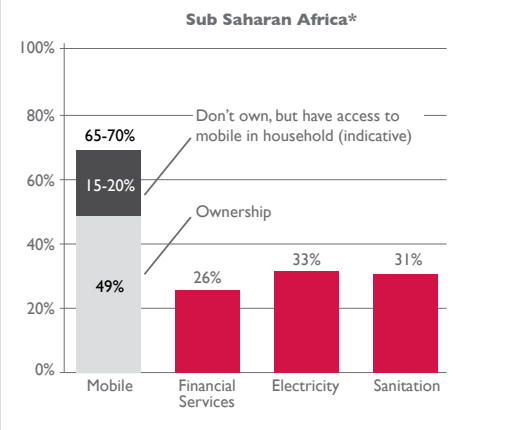
Use this handbook as a reference tool. While many issues are common across markets, every market is of course different. We can't document the answers to how you might engage in every country, but we can equip you with common questions to ask.

Rely on this handbook in concert with other resources being developed by USAID to equip staff to harness the power of information and communication technology for development (ICT4D). Cross-cutting resources that complement this handbook include:

- A set of principles endorsed by USAID and many donors for effectively using information and communication technology to achieve development outcomes;
- A diagnostic for understanding and increasing mobile access (forthcoming);
- A set of materials explaining how to most effectively use data and mobile data collection tools in programs(materials are freely accessible at the link upon joining the group on USAID's Learning Lab); and

FIGURE 3

Gaps in Infrastructure Access and the Opportunity Presented by Mobiles



**Mobile and financial services includes select countries.*
Source: *Scaling Mobile for Development, GSMA (2013)*

- A toolkit for implementing partners that helps them pursue and complete a change process where they shift from using cash to using inclusive digital financial services like mobile money in programs.

This Handbook will be a living document. Digital financial services—like the technology they rely on— are evolving constantly, and this handbook will evolve to keep pace.

This Handbook is divided into the following parts:

- PART 1: BACKGROUND provides a detailed background on inclusive digital financial services. It clarifies what digital financial services are, how they differ from traditional banking ecosystems, and how they are relevant to Agency staff, regardless of their area of expertise.

- PART 2: STAKEHOLDERS summarizes the key stakeholders involved in the development of digital financial services. These range from customers to mobile network operators to policymakers.

- PART 3: REGULATORY ISSUES provides an in-depth summary of key regulatory issues, such as the role of mobile network operators and other non-bank institutions, use of agents, customer identification requirements, and consumer protection.

- PART 4: STRENGTHENING ECOSYSTEMS discusses how USAID can strengthen the ecosystem for digital financial services. It looks at how donors can impact ecosystem development and includes examples of how USAID and other donors have worked on these issues around the world.

- PART 5: USING ECOSYSTEMS delves into how USAID can use digital financial services. This part provides examples of how implementing partners around the world are using digital financial services to improve the efficiency, security, and impact of their programs.

- PART 6: PROGRAMMING discusses how Agency staff can assess, design, solicit, implement, and evaluate the use of inclusive digital financial services in programs.

At the end of the Handbook, you will find a list of key resources with links to useful reports, guides, case studies, and other materials. Following the Key Resources section is the Annex, which includes more details on selected topics discussed in the Handbook.

PART I

BACKGROUND

Inclusive Digital Financial Services

BACKGROUND

Inclusive Digital Financial Services

THIS PART IS MOST RELEVANT FOR:
all Mission staff.

THIS PART WILL ENABLE YOU TO:
understand the basic aspects of inclusive digital financial services (DFS) like mobile money so that you can understand how they work and what they are useful for.

digital financial services

Digital financial services (DFS) are fundamentally about saving money, accessing credit and insurance, and performing transactions via digital channels—mobile phones, cards, computers, tablets, and so on. We often talk about "mobile money" because in developing countries *mobile phones* are the most widely distributed and most functionally adaptable means for accessing digital financial services.

What are the key terms used in the ecosystem?

In young sectors, the meaning of basic terms often shifts over time. Early on, "mobile banking" was used to refer broadly to the access of financial services through a mobile phone, like checking an account balance or transferring funds. Similarly, "mobile money" has great currency today, but the channel-agnostic alternatives of "digital money" or "electronic money" are gaining ground.

Mobile money allows users to send and receive funds via a mobile phone. A typical transfer looks like this:

Source: Smart Money (Philippines)

Only recently have regulators in developing countries begun to coalesce around common legal definitions for fundamental terms like "electronic money." Much of the ground covered can be seen in two useful reports by the Alliance for Financial Inclusion (AFI), a donor-sponsored peer-to-peer learning group made up of central banks and ministries of finance: Mobile Financial Services: Basic Terminology and Mobile Financial Services: Indicators for Measuring Access and Usage.[1]

What are the basic, functional capabilities that digital financial services allow?

CASH-IN: Customers can visit an agent (often an airtime distributor or other retailer) to deposit

1. A variety of organizations have released additional glossaries of key terms, including FinMark Trust, GSMA, USAID, the World Bank, the Cash Learning Partnership (CaLP), and the Center for Financial Inclusion.

TABLE 1

Key Terms related to Digital Financial Services

Branchless Banking or Banking beyond Branches	The delivery of financial services (whether by banks or by other providers) outside of conventional bank branches. Banking beyond branches uses agents or other third party intermediaries as the primary points of contact with customers and relies on technologies such as card-reading point-of-sale (PoS) terminals and mobile phones to transmit transaction details.
Mobile Financial Services (MFS)	The use of a mobile phone to access financial services and execute financial transactions. This includes both transactional services (such as payments) and non-transactional services (such as viewing financial information on a user's mobile phone). Mobile financial services include both mobile banking (m-banking) and mobile payments (m-payments). In some cases, MFS is defined broadly to include other means of accessing financial services remotely, such as Internet-enabled devices (tablets, laptops, desktops, smartphones) and PoS terminals.
Mobile Banking (m-banking)	The use of a mobile phone to access banking services and execute financial transactions. Like MFS, this covers both transactional and non-transactional services. The term "mobile banking" is often used to refer only to customers with bank accounts.
Mobile Money (m-money)	A mobile-based service facilitating electronic transfers and other transactional and non-transactional financial services using mobile networks. A mobile money issuer may, depending on local law and the business model, be an MNO or a third party such as a bank. Often used synonymously with "mobile financial services."
Mobile Network Operator (MNO) / Telco	A company that has a government-issued license to provide telecommunications services through mobile devices.
Mobile Payments (m-payments)	The facilitation of domestic and/or cross-border payments via a mobile phone. M-payments are a subset of MFS. As noted above, m-payments sometimes are defined broadly to include Internet-enabled devices and PoS terminals.
Electronic Money (e-money)	A type of monetary value electronically recorded and generally understood to have the following attributes: (i) issued upon receipt of funds; (ii) stored electronically; (iii) accepted as a means of payment by parties other than the issuer; and (iv) redeemable for cash.
Electronic Payments	Payments made via electronic channels, including mobile and Internet channels, using infrastructure such as mobile phones, computers, electronic cards, and PoS devices.
Digital Financial Services (DFS)	"Digital financial services" is a broad category that encompasses MFS and all branchless banking services that are enabled via electronic channels. Services can be accessed using a variety of electronic instruments, including mobile phones, PoS devices, electronic cards (credit, debit, smart card, key fobs), and computers. Similarly, "digital payments" covers mobile payments and electronic payments, while 'digital money' covers mobile money and electronic money.
Agent	Any third party acting on behalf of a bank or other financial services provider (including an e-money issuer or distributor) to deal directly with customers. The term "agent" is commonly used even if a formal principal–agent relationship does not exist under the laws of the country in question. Depending upon the regulatory framework and their agreement with the provider, agents may provide a variety of services on the provider's behalf, ranging from account opening to acceptance (cash-in) and disbursement (cash-out) of cash.
Cash Merchant	A type of agent that only conducts cash-in/cash-out services. Cash merchants typically pose less risk than full-service agents and may be regulated differently as a result.
Interoperability	With respect to mobile money and other digital financial services, "interoperability" generally refers to platforms that permit the transfer of funds from mobile accounts of one service provider to mobile accounts of another service provider.
Financial Inclusion or Access to Finance	Access to and the ability to effectively use appropriate financial services that are provided responsibly and sustainably in a well-regulated environment. Although access to informal financial services (services offered by unregulated entities) is a form of access to finance, financial inclusion efforts typically focus on extending access to formal financial services (services offered by regulated entities) to poor and underserved communities.
Financial Institution	An institution (typically licensed and regulated in some manner) that offers financial services such as credit, savings, payments, and/or insurance.
Non-bank Financial Institution (NBFI)	A financial institution that is not a bank. Examples include microfinance institutions (MFIs), mobile money providers, and insurance companies.

Source: *AFI, Mobile Financial Services: Basic Terminology,* except where noted otherwise.

cash for an equivalent value of mobile money that is associated with their mobile subscription (see pictures below for examples of agent shops in Rwanda and Perú).

CASH-OUT: Customers can visit an agent to obtain cash by reducing the value of mobile money associated with their mobile subscription.

PERSON-TO-PERSON TRANSFER (ONE-TO-ONE) — P2P: Customers regularly use mobile money services to send money to family and friends in other parts of the country. This service has proven to be particularly popular in countries with heavy migration from rural to urban areas for people in cities to safely and conveniently send money home. In June 2013, GSM Association (GSMA) survey participants (representing the majority of global mobile money services) recorded over 58 million domestic P2P transfers valued at over USD 2 billion.

Figure 1 shows how cash-in, cash-out, and P2P transfers work in a mobile phone-based model.

BULK PAYMENT — BUSINESS-TO-PERSON (B2P) OR GOVERNMENT-TO-PERSON (G2P): Businesses (B2P) and governments (G2P) can use digital financial services to make payments to unbanked and underbanked people more safely and efficiently. Electronic payments eliminate the need to transport large amounts of cash, thereby reducing the cost and risks of fraud, theft, and delay. Businesses use these systems to pay salaries and invoices, while governments pay salaries, pensions, and other social transfers. In June 2013, GSMA survey participants processed 6 million bulk payments valued at over USD 21 million.

BILL PAYMENT — PERSON-TO-BUSINESS (P2B) OR PERSON-TO-GOVERNMENT (P2G): Millions of people already use digital financial services to pay

See Mobile Money Work

Airtel Money, a mobile money service launched by Airtel in Uganda, has a simple, interactive website that uses screen-shots to explain what its service can do.

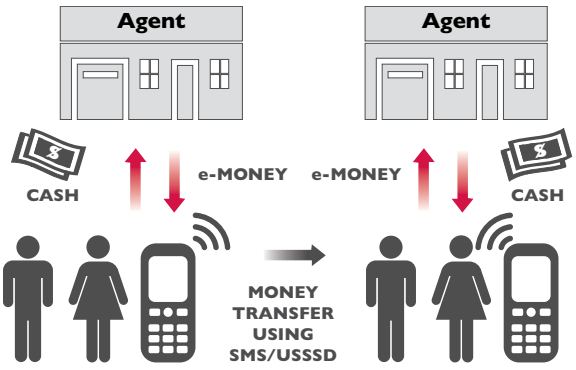
bKash, a mobile money service launched by BRAC in Bangladesh, has a simple, easy-to-understand website that uses short videos and step-by-step guides that present each of the basic capabilities that most mobile money services have.

Source: Authors

Source: CGAP

FIGURE 1

Example of cash-in, cash-out, and P2P transfer using a mobile phone.



Adapted from: *Mobile Money for Health, Abt Associates (2013)*

bills such as utility services and taxes. In June 2013, GSMA survey participants processed 12.9 million bill payments valued at nearly USD 350 million. In Brazil alone, where agents have been providing bill payment services for over a decade, agents processed nearly 2.4 billion bill payments in 2012.

MERCHANT PAYMENT: Customers are beginning to use mobile money. In June 2013, GSMA survey participants processed over 5 million merchant payments valued at over USD 13 million. For this type of payment to take off, merchants need to be able to accept mobile payments, whether through a normal PoS terminal or a merchant account for mobile money. As adoption and use of mobile money services grow, consumers will finally have the option to buy things without having to convert mobile money back into cash.

AIRTIME TOP-UP: Customers can use mobile money to pay for additional airtime for mobile calls and texts. MNOs highly support using mobile money to top-up airtime, because it's significantly cheaper, requiring no paper for scratch-off cards and commissions to airtime agents.

CROSS-BORDER PAYMENT (INTERNATIONAL REMITTANCE): Digital financial services also can be used to facilitate payments between countries, including both (1) traditional remittances (such as sending funds to a mobile wallet via Western Union or another money transfer operator; and (2) regional payments (such as being able to send and receive funds to/from mobile wallets in neighboring countries). Cross-border payments have been much slower to develop than domestic payments due to significant regulatory impediments (a June 2013 survey by GSMA found that mobile money providers processed fewer than 50,000 such remittances). Regional mobile-to-mobile payments are beginning to develop, however. In February 2014, Tigo launched a product facilitating transfers between Tigo customers in Rwanda and Tanzania. Both East Africa and West Africa are at the centers of effort by central banks and ministries of finance to harmonize regulations to simplify and lower the often-high transaction costs of cross-border payments.

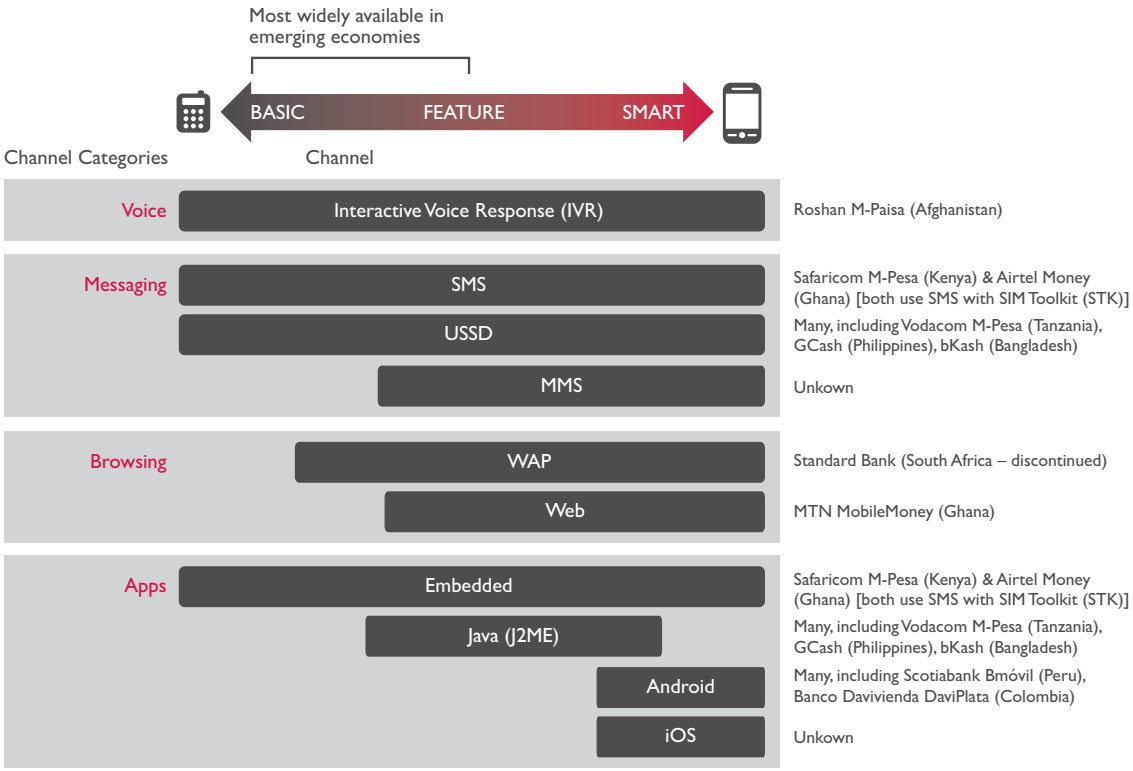
What do I need in order to use mobile money?

AT MINIMUM, YOU NEED A PHONE AND A SIGNAL. Access to a mobile phone can include the ability to use a friend's phone or a family's shared phone. Due to regulatory requirements designed to reduce the risk of money laundering and terrorist financing, you'd typically need access to a SIM card that's registered in your name. Although the SIM card alone is not sufficient to realize the broader potential of mobile phones, you could insert it into a borrowed phone to perform transactions.

YOU DON'T NEED A SMARTPHONE. Most of the 200+ mobile money services identified by GSMA are designed to operate on the full spectrum of phones, because basic and feature phones will continue to be the types most widely available in the developing world for the next 5 or so years. Nearly all basic

FIGURE 2

Mobile channels for delivering and accessing digital financial services



Adapted from: Scaling Mobile for Development: a Developing World Opportunity

phones have SMS/USSD capability, which are the primary access channels used by most mobile money services (see Annex for a diagram of different mobile money channels). GSMA and Bankable Frontier Associates each have explored in detail the technical aspects of mobile money service underpinnings.

Once you have access to a phone and your own SIM card, you then need to register for a mobile money service. In certain countries, you can open a mobile money account through your phone's menu. In others, regulations require you to visit an agent in person. The agent will work with you to complete the application, receive and verify identification documents, explain how the service works, and add your first balance of mobile money by exchanging your cash for an equal amount of mobile money.

Beyond payments, what other types of financial services do digital financial services make possible?

In addition to the payment services described above, mobile phones and other channels facilitate delivery of a broad range of financial services, including the following:

1. Transactional Banking: Many low-income people—particularly those who lack regular, salaried employment—struggle to manage low and irregular cash flows. DFS can enable people to access formal financial services that can help them to manage income flows and smooth consumption. Books such as *Portfolios of the Poor* have highlighted the fact that poor people

OVER-THE-COUNTER TRANSFERS VERSUS MOBILE WALLETS

In some countries, agents perform over-the-counter (OTC) mobile money transfers on behalf of customers who never open a mobile wallet. In Pakistan, for example, two-thirds of the customers of Tameer Bank's EasyPaisa service (the country's largest mobile money service) use OTC transfers rather than mobile wallets. Although the bank believes that OTC services can serve as a stepping stone to adoption of mobile wallets and financial inclusion, experience shows that the leap to mobile wallets is not so easy to ensure. For that reason, USAID strongly prefers approaches that enable easier access to mobile wallets from the start of any customer relationship.

have complex financial lives and an even greater need for safe, cost-effective, and convenient money management tools than their wealthier compatriots.

2. Savings and Credit: Mobile money offers a new, low-cost method to reach consumers with savings and credit services, and the mobile phone channel itself has enabled new models for extending credit to people who have no formal credit history. In Kenya, where M-Pesa and other mobile money services had reached 74 percent of the adult population by April 2013, Commercial Bank of Africa (CBA) has partnered with M-Pesa to offer M-Shwari. M-Shwari allows M-Pesa users to open an interest-bearing savings account at CBA and access low-value, short-term loans. Fifteen months after its launch, 6 million customers had opened an M-Shwari account, saving over USD 270 million and borrowing over USD 88 million.

   For many unbanked consumers, particularly the poorest and most geographically isolated, a key barrier to credit access is the lack of information on their creditworthiness. That information is essential, since they often lack collateral to secure a loan. New services offered by start-ups like Cignifi (in Brazil), Experian MicroAnalytics (in the Philippines), First Access (Tanzania), and InVenture (in India, South Africa, and Kenya, and a grantee of USAID's Development Innovation Ventures program) rely on mobile data for developing risk profiles of people who have no credit history. In the case of M-Shwari, these risk profiles are directly integrated with the service's lending platform, allowing for rapid credit assessment and loan disbursement to M-Pesa mobile wallets.

3. Insurance: Mobile money providers are increasingly offering insurance services to their customers to increase usage and encourage brand loyalty. In addition to life insurance, some providers are offering health, accident, cattle, crop, and travel insurance. In Ghana, Tigo's Family Care Insurance product has more than doubled the number of Ghanaians with life insurance through a "freemium" model that provides a basic level of insurance for free, with the option to pay a premium for higher coverage.

Access to mobile money services also can facilitate greater access to financial support from family during times of crisis. Though not a formal insurance service, the use of mobile money for channeling payments to relatives coping with a

negative shock (such as drought or illness) can have a similar effect in practice. Recent evidence from Kenya has demonstrated that although non-users of M-Pesa suffered a 7 percent drop in consumption following shocks, M-Pesa users were able to maintain their consumption levels through support from family members living outside the community.

Don't banks and other financial institutions already provide these services? Why is there so much hype around digital financial services?

In most developing countries the majority of the population is either unbanked (no bank account) or underbanked (has a bank account but relies heavily on informal services). As of 2011, less than a quarter of low-income adults had an account in a bank or other formal financial institution. In addition, many of these accounts are used only for salary disbursements or are completely dormant. In India, for example, a 2009 study estimated that only 11 percent of "no-frills accounts" (basic accounts targeted at low-income individuals) were active.

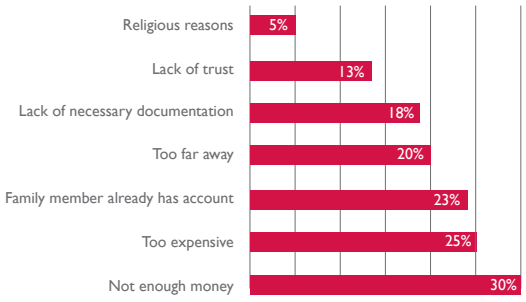
Cost-related factors have led to such low access and usage. The cost of extending access to financial services using traditional banking infrastructure is prohibitive, and even more so because most banks find very low value accounts to be unprofitable. As a result, opening a branch in a lightly populated area with few well-off potential clients doesn't make business sense.

Since most poor people live in rural areas, many low-income customers will remain far from the nearest branch, making the cost and time of travel to and from the branch prohibitive. In addition, banks often impose minimum balance requirements and/or monthly fees, both of which make such accounts unaffordable for low-income customers. Cost and distance are two of the biggest reasons why poor people do not use banks (see Figure 3). In addition to gender-related effects, the rates of financial inclusion within a country tends to differ across levels of income and education and between urban and rural communities (see Figure 5).

FIGURE 3

Self-reported barriers to use formal accounts

Non-account-holders reporting barrier as a reason for not having an account (%)

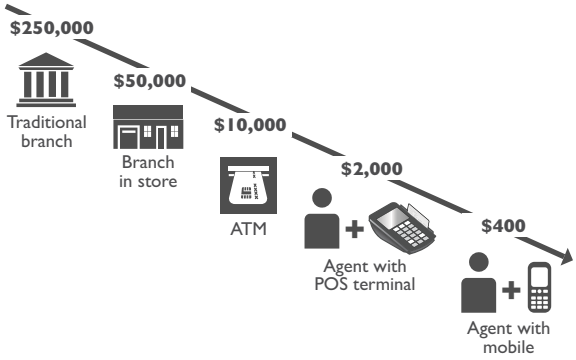


Note: Respondents could choose more than one reason. The data for "not enough money" refer to the percentage of adults who reported only this reason.
Source: Demirguc-Kunt and Klapper 2012.

Source: *Measuring Financial Inclusion: The Global Findex Database*, World Bank

FIGURE 4

Financial Infrastructure Cost for Branches vs. Branchless Banking



Source: Tarazi, *Branchless Banking: Why, How, For Whom?*

DFS can address these issues, finally making it possible for banks and other financial service providers to reach low-income and isolated groups:

- Infrastructure Cost: CGAP has estimated that the average cost of a full-fledged bank branch is USD 250,000. Equipping an agent with a PoS device or a mobile phone dramatically reduces the fixed infrastructure costs, thereby changing the value proposition for offering services in rural, low-income areas (see Figure 4).

- Access and Convenience: The relatively low start-up costs for agents of DFS allow providers to offer these services even in rural, low-income areas. In addition, agents are not salaried employees—they are compensated based upon transactions conducted rather than hours worked—so providers face little financial risk from contracting an agent in a rural area. Furthermore, in the case of mobile phone-based services, many transactions can be conducted by clients without entering an agent shop, such as paying for agriculture- or health-related information delivered through the phone. Local access to financial services changes the value proposition for low-income clients, many of whom are eager to find a safe place to store funds they currently keep at home.

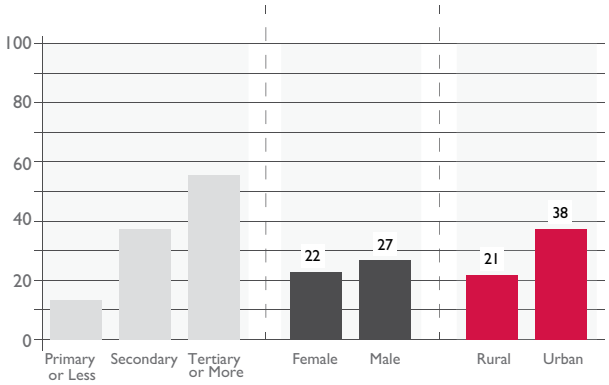
Beyond basic financial services, what types of services do these mobile money capabilities make possible? In what sectors?

As we note at the beginning of this handbook, DFS are enablers and facilitators of economic activity in every sector. Just as roads facilitate the transport of crops along with the transport of medical supplies to clinics and students to school, DFS are sector-agnostic means to many ends:

- The disbursement of teacher salaries

FIGURE 5

Adults with an account at a formal financial institution (%) in Sub-Saharan Africa



Adapted from Measuring Financial Inclusion the Global Findex Database, World Bank (2012).

- The collection of microloan payments
- The disbursement of microinsurance payouts
- The strengthening of health care supply chains and disbursement of vouchers
- The collection of pay-as-you-go fees for solar-powered electricity

The list goes on, as CGAP and GSMA have documented. The use of DFS as enablers and facilitators of economic activity in other sectors is commonly referred to as Digital Finance Plus. Digital Finance Plus treats DFS as the financial infrastructure or "rails" linking consumers to providers of critical services in, among other sectors, health, education, energy, water, and agriculture.

AGRICULTURE: Dozens of services now use DFS to support agricultural development. Some examples include the following:

- Improving Delivery of Subsidized Inputs: Nigeria's Federal Ministry of Agriculture and Rural Development is using mobile phones and smart

cards to transform the delivery of subsidized inputs to smallholder farmers. Initial results suggest that the use of mobile phones and other technology has increased outreach to smallholders while saving the government hundreds of millions of dollars. Rwanda is also starting to move from paper to electronic vouchers and is encouraging farmers to pay with mobile money.

- Streamlining Payments to Smallholder Commodity Farmers: Buyers of commodity crops are using mobile money to pay smallholder farmers. Zoona, an early innovator in Zambia, replaced cash payments to cotton farmers with electronic vouchers (scratch cards) that can be cashed out at agents. Other providers use mobile phones, including Tigo, an MNO in Ghana, and SmartMoney, a mobile money service provider targeting rural families in Uganda and Tanzania.

- Lowering the Cost of Agricultural Insurance: Agricultural insurance is often too expensive for smallholder farmers because of high administrative costs. In Kenya, however, services like Kilimo Salama are reducing costs by combining remote weather monitoring with mobile-enabled registration and payments.

- Integrating Smallholders into Value Chains: In Kenya, Tanzania, and Mozambique, the Connected Farmer Alliance (CFA) uses mobile channels to strengthen links between smallholder farmers and agribusinesses and enable farmers to save and invest. In Indonesia, USAID examined the potential utility of DFS in the cocoa value chain.

- Facilitating Irrigation Payments: USAID's SUWASA project in Africa included a pilot project using mobile money to buy prepaid water tokens for irrigation purposes.

ECONOMIC GROWTH: In addition to the direct effects of providing increased access to financial services, DFS can affect a country's economy and growth indirectly in a number of ways:

- Macroeconomic Implications: Mobile money services offer the potential to draw savings out from under the mattress into the formal economy, where they can be used for investment. Although mobile money usage is still

FIGURE 6

MFS brings benefits to individuals that, in aggregate, impact society

A Benefits for the individual

Benefits for all MFS users
- Improved accessibility
- Lower Price
- Products tailored to target group
- Reduced reliance on cash

Additional benefits for unbanked
- Mitigate income volatility
- Mitigate expense shocks

B Economic impact on society

Aggregate effects on society
- Financial inclusion on society
- Entrepreneurship and job creation
- Formalization of funds, government revenues

Additional direct effects on other stakeholders
- Governments facilitate e-government, reduce cost of disburseming aid, etc.
- Firms: reduce cost of financial transactions

C Social impact on society

Inclusive economic growth and reduced inequality
- Allowing families (and businesses) to respond to shocks, improve their lives with effects on education, health and entrepeneurship

Increased transparency
- Informal channels are substituted with formal channels, reducing risk of leakage, fraud, and corruption

Source: *The Socio-Economic Impact of Mobile Financial Services*, Boston Consulting Group

low in many countries, in Kenya mobile money accounted for 1.2 percent of total bank deposits as of April 2013.

EDUCATION: Conditional cash transfers also are being used to promote the education of poor children. Examples include:

- Haiti: Under the Ti Manman Cheri scheme, poor women with children in Grades 1–6 receive transfers that are conditional upon school attendance. The Haitian government is encouraging participants to receive the funds using mobile wallets. One year into the program, 30 percent of recipients were using mobile wallets.

- Philippines: In the Philippines, the Pantawid Pamilyang Pilipino Program conditional cash transfer scheme aims at improving education and health outcomes for children from poor families. The program, which includes an enrollment and attendance requirement for children ages 3–14, encourages recipients to use DFS to receive payments. Currently, 40 percent of recipients are receiving payments on debit cards.

ENERGY: Digital channels are being used to increase access to electricity and other sources of energy. Examples include:

- Kenya: In Kenya, where 84 percent of the population is not connected to the electrical grid and is forced to rely on kerosene for lighting, M-KOPA has developed an inexpensive pay-as-you-go solar energy system using M-Pesa to facilitate mobile payments. Launched in 2011, M-KOPA had reached 50,000 households by February 2014.

GENDER: Women have lower rates of access to financial services than men, and DFS can be a means to narrow that gap. USAID supports the GSMA's mWomen program, which aims to expand women's use of mobile phones and life-enhancing mobile services. The functional capabilities of mobile financial services can also help address certain needs that women have identified as priorities (see Figure 7).

GOVERNANCE: The Afghan government is using mobile money to pay teacher and police salaries. One major benefit is a reduction in corruption, as

FIGURE 7

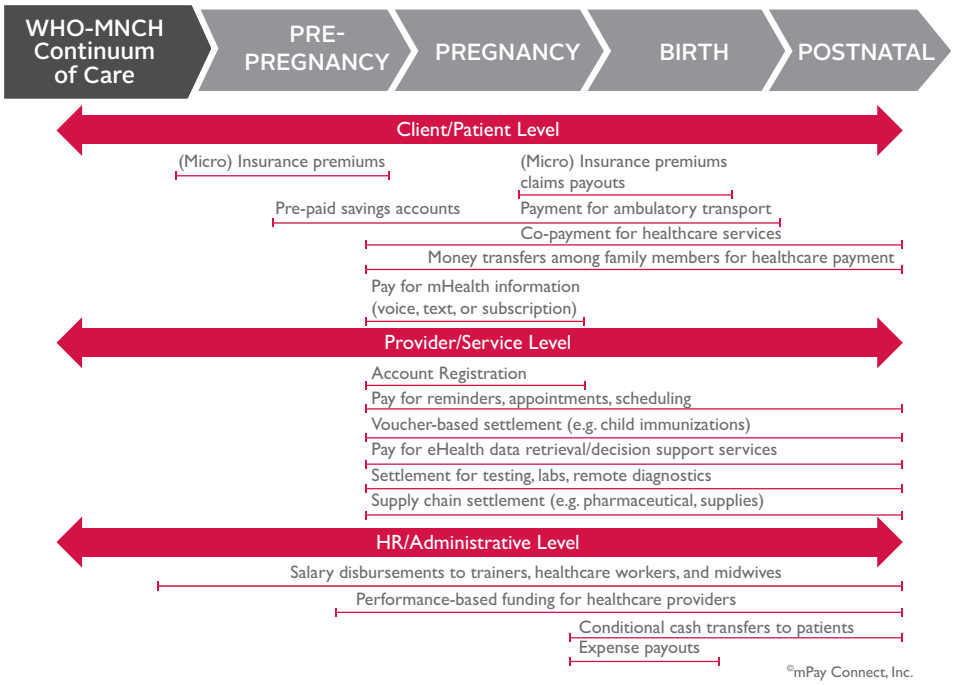
Women in this study value four key attributes in financial tools and services

CONVENIENCE	RELIABILITY	SECURITY	PRIVACY
Given women's time management challenges, they want financial tools that fit with their daily routines and take as little time as possible.	Women need reassurance that their tools will deliver their small, high-frequency transactions and provide easy access to cash and savings for emergencies, day or night.	Hard-earned income is precious. Women need to manage their finances without risking harm to their household wealth, their families, and themselves.	Women feel empowered and independent if they have the freedom to spend their money as they like, without undue demands from family and friends
It takes too long of my time, and the line is also too long. - Woman in Indonesia who pays her water bill in person with cash	*I keep some money in a piggy bank because maybe if I have a problem late at night I cannot go to the bank and also if I go to [the mobile money agent] I find it closed so I take money out of the piggy bank and use the money.* - Woman in Nairobi, Kenya	*I feel anxious because I carry a lot of money.* - Woman in rural Indonesia	*I can hide my money by he still finds, so I have to hide it very far so he can't know where it is.* - Kenyan woman describing her husband

Source: *Unlocking the Potential: Women and Mobile Financial Services in Emerging Markets*, GSMA mWomen Alliance

FIGURE 8

Using MFS for Maternal Continuum of Care



Source: *Advancing the Dialogue on Mobile Finance and Mobile Health: Country Case Studies*, mHealth Alliance

many police officers who previously were paid in cash reported receiving their full salary for the first time. Other benefits include improved efficiency and timeliness of payments.

HEALTH: DFS offer the potential to improve health outcomes for individuals, families, and communities (see Figure 8). Examples include:

- Maternal and Child Health: Governments are using electronic payments to facilitate conditional cash transfers aimed at improving health outcomes for children from poor families. Examples include the Philippines, where poor women who are pregnant or have young children receive conditional cash transfers under the aforementioned Pantawid Pamilyang Pilipino Program. Recipients must take certain steps to improve the health of their children, such as receiving pre- and post-natal care and vaccinating children.

- Clean Water: The GSMA's Mobile Enabled Community Services (MECS) program aims to leverage mobile technology and infrastructure to enhance access to clean water in underserved communities.

HUMANITARIAN ASSISTANCE: DFS are being used to facilitate humanitarian assistance in a number of countries.

- Kenya: Poor families in areas deemed food-insecure receive conditional cash transfers instead of in-kind food aid under the Cash for Assets program. All able-bodied recipients must participate in "community asset development work" such as soil and water conservation efforts.

After initial efforts to transfer funds to mobile phone-based wallets failed because of challenges with network connectivity, participants received a debit card tied to a bank account. The World Food Program found that electronic transfers were 15 percent less expensive than in-kind food aid and just as effective with respect to recipients' food consumption.

- Multi-country: The Cash Learning Partnership (CaLP) has developed a number of studies and tools that look at the use of mobile money and other inclusive electronic payment systems to make payments to people in need of humanitarian or other assistance. One report documents experience with four types of electronic technologies (debit cards, smart cards, mobile money, and e-vouchers), while others include booklets on plastic cards (debit cards and smart cards)

For more examples of the use of mobile money and other inclusive electronic payments to facilitate access to critical development services, see the following resources:

- CGAP's database of Digital Finance Plus solutions
- GSMA's list of Mobile for Development initiatives

PART 2

STAKEHOLDERS

Inclusive Digital Financial Service Ecosystems

USAID
FROM THE AMERICAN PEOPLE

STAKEHOLDERS

Inclusive Digital Financial Service Ecosystems

THIS PART IS MOST RELEVANT FOR:
program and technical offices.

THIS PART WILL ENABLE YOU TO:
understand the common areas in which USAID is uniquely capable of playing a role in using and strengthening inclusive digital financial service ecosystems as you pursue development outcomes across sectors.

Clear communication, inclusive dialogue, strategic collaboration, and good relationships are enormously important to the growth of digital financial service (DFS) ecosystems. The sector is quite new, particularly in developing countries. Regulators often lack a strong technical understanding of DFS issues. Companies may not understand the risks involved in rolling out a new transaction service to millions of people. Consumers may not understand how new services work or why they are useful. Even within each stakeholder group, coordination is important and often lacking. Core reports on what different stakeholders offer include:

- Emerging Lessons of Public Funders in Branchless Banking, CGAP.
- Partnerships in Mobile Financial Services: Factors for Success, IFC.
- Mapping and Effectively Structuring Operator-Bank Relationships to Offer Mobile Money for the Unbanked, GSMA.

As a donor, it's helpful for you to understand who has what at stake in the ecosystem. Only then can you understand how much or little USAID might contribute to growth. USAID will rarely be in a market-maker position, but often it will be invaluable as a facilitator of dialogue, provider of technical assistance, or curator of market insights for dissemination as public goods.

What are the primary levels that make up digital financial service ecosystems?

1. Customer Level: People and organizations that use DFS.
2. Micro Level: Entities that provide financial services to customers.
3. Meso Level: Entities that provide support services and infrastructure.
4. Macro Level: Entities that manage policy, regulation, and supervision of the financial service providers and of the ecosystem as a whole.

CUSTOMER LEVEL: Customers are the users of DFS. In addition to individuals, they include a number of others:

- Utilities and other companies: for bill payments (C2B), salary payments (B2C), and commercial payments (B2B)
- Government entities: for bill payments (C2G, B2G) and payment of salaries or social benefits (G2P)

- Merchants: for accepting payments for goods or services

- Microfinance and other financial institutions: for disbursing loans, accepting loan repayments, paying insurance premiums, and so on

MICRO LEVEL: Stakeholders at the micro level are the institutions that are specifically authorized to provide DFS to consumers. Depending upon the regulatory framework, services may be offered by:

- A mobile network operator
- A bank or other licensed financial institution
- An entity licensed to issue e-money
- A third-party service provider

MESO LEVEL: Meso-level stakeholders provide information and infrastructure to support the provision of services by the micro-level institutions. Examples of meso-level stakeholders include the following:

- MNOs: Regardless of whether MNOs are providing services directly at the micro level, they are important actors at the meso level. Money money services depend on reliable network connectivity and widespread access to mobile phones, particularly in rural areas. Reliability and affordability are also affected by the quality and cost of using SMS and USSD access channels.

- Agents: Like mobile phones and mobile networks, agents provide financial infrastructure for the provision of DFS. Although customers access services at agents, the agents are only acting on behalf of other service providers, so their role is one of support rather than direct provision of services.

- Providers of ATM and PoS Services: Like mobile phones and agents, ATMs and PoS devices are a form of financial infrastructure through which customers may use DFS. Depending upon the context, providers of ATMs and PoS devices may include banks and other payment service providers.

- Technology Service Providers (TSPs): In many cases, banks and MNOs lack the expertise to develop and operate a DFS scheme without any outside support. TSPs provide important technical services to micro-level providers, such as hardware, software, and IT technical support.

- Payment Service Providers (PSPs): PSPs play various roles in supporting DFS. For example, PSPs may develop interconnected networks to allow customers of one provider to (1) use agents, ATMs, or PoS devices of a different provider; or (2) send funds to or receive funds from someone using a different mobile money or other electronic payment service provider

- Industry Researchers: Local and international consulting firms, nonprofit organizations, and individual consultants can contribute to the development of DFS through market research conducted either on behalf of an individual service provider or for public dissemination.

MACRO LEVEL: Macro-level stakeholders are responsible for the policies, laws, and regulations governing DFS ecosystems. They are also responsible for supervising and enforcing the laws and regulations that are enacted. Key macro-level stakeholders include the following:

- Central bank or other financial supervisory body: Typically, the regulator of banks also will regulate mobile money and electronic payment services. Depending upon the laws of the country and the types of entities that are permitted to offer these services, the following departments may be involved:

  - » Banking supervision department

- Non-bank financial institution (NBFI) supervision department
- Payment system supervision department
- Financial consumer protection department (if applicable)
- Money laundering and terrorist financing department (often but not always housed within the Central Bank)
- Foreign Exchange Control department (if applicable)

- Telecommunications regulator: Telecommunications regulators may play an important role in mobile money policy. While the central bank typically is directly responsible for authorizing and monitoring financial services provided by MNOs, the telecommunications regulator will be concerned with how providing financial services will affect MNOs' core business and market competition, among other issues.

- Competition and consumer protection regulator: In countries where a regulator is responsible for enforcing competition law and protecting consumers, certain aspects of providing DFS may need to be reviewed, such as the effect on competition in the financial services and telecommunications markets, pricing policies, privacy and complaint processing requirements, and exclusivity agreements with agents.

How do donors fit into this ecosystem? Who are the key donors working on strengthening digital financial service ecosystems?

In general, donors are meso-level stakeholders. While donors work with stakeholders at every level, their primary role is to support other stakeholders rather than to assume these roles themselves. Although donors often take a multipronged approach to strengthening DFS ecosystems, some donor specialization has developed over time. The following table lists some of the key donors and donor-supported entities offering support and their primary areas of focus.

TABLE 1

Players in the Mobile Money Ecosystem

Players	Assets and Capabilities	Incentives	Roles	Limitations and Constraints
MNOs	• Mobile infrastructure • Extensive retail outlet/ agent networks • Massive customer bases that include low-income segments • Strong branding • Customer trust • Customer service structures • Ability to make good margins on low ARPUs	• Acquire customers • Manage churn • Reduce airtime distribution cost • Increase ARPUs • Capture additional revenue opportunities, e.g. interest on float or commission on float mobilized; commission on B2B transactions; finders fees for bank accounts opened • Meet service obligations and CSR goals	• Provide infrastructure and communications service • Agent oversight and quality control • Issue e-money (where commercially desirable and permitted by law) • Exercise leadership in drawing mobile money ecosystem together • Advise other businesses (e.g. banks, insurers, utilities) on their mobile money strategies	• Regulatory limitations on providing financial services, e.g. on taking deposits, issuing e-money • Shareholder pressure for faster, higher returns • Strategic focus that may not include mobile money
Banks	• Banking license and infrastructure • Ability to facilitate foreign exchange, clearing, and settlement • Regulatory compliance expertise • Retail outlet networks (though significantly more limited than those of MNOs)	• Significantly reduce cost of delivering financial services • Establish presence in new customer segments and new geographic areas • Meet service obligations and CSR goals • Capture additional revenue e.g. through retention of deposits	• Offer banking services via mobile • Hold float or accounts in customers' names • Handle cross-border transactions, manage foreign exchange risk • Ensure compliance with financial sector regulation	• Narrow customer base • Lack of experience with, and in some cases interes in, low-income customers • Stringent regulatory requirements with significantcompliance burdens
Agents	• Physical points of presence • Customer trust (in some cases) • Knowledge of customer usage habits and needs	• Earn commissions on transactions • Increase traffic and thus sales potential (for agents who are retailers)	• Perform cash-in and cash-out functions • Handle account opening procedures, including customer due diligence (where commercially desirable and permitted by law) • Report suspicious transactions in accordance with AML/ CFT requirements • Identify potential new mobile money applications	• Liquidity shortfalls • Basic business skills gaps • Lack of customer trust (in some cases) • Limited ability to partner with large corporations
Retailers	• Physical points of presence	• Reduce cost of handling cash • Reduce queues at peak times • Manage inventory more effectively	• Accept mobile payments • Use mobile payments in B2B transactions, payment of wages • Build customer trust in mobile money by leading by example	• Customer demand (or lack thereof) for payments through mobile channel • Business partner willingness to transact by mobile

TABLE 1 CONTINUED

Players	Assets and Capabilities	Incentives	Roles	Limitations and Constraints
Utilities	• Periodic billing and collection	• Reduce cost of payment collection and processing • Increase timeliness of payment • Offer greater customer convenience	• Offer mobile payment options	• Potential threat to existing bill collection agents
MFIs	• Service presence among low-income segments • Regular communication with low-income clients • Knowledge of low-income clients' habits and needs	• Safer and lower-cost methods of disbursement and collection • Improve business efficiencies	• Introduce low-income segments to mobile money • Educate end users	• Back office systems may not link with mobile money platforms • Cultural resistance
Employers	• Existing periodic payroll distribution to employees	• Reduce cost of payroll processing, risk of cash handling • Offer greater employee convenience	• Offer direct deposit of wages into mobile money accounts	• Cultural resistance
Regulators	• Authority to impose regulation and monitor and enforce compliance	• Promote financial inclusion • Enable wider range of payment choices • Address AML/CFT concerns by moving cash into more visible, formal channels • National socio-economic development	• Provide enabling environment for mobile money • Protect stability of financial system • Demonstrate leadership to encourage and protect behavior change	• Lack of experience with convergence of financial and telecommunications regulatory regimes • Lack of financial and technical capacity
IFIs and Donors	• Contacts, experience, and expertise across countries, sectors, and industries • Credibility with regulators • Comprehensive suite of relevant functions • International presence	• Promote financial inclusion • Drive development in general, in line with organizationalmission	• Undertake research, especially on lower income segments • Provide financing and/or technical assistance • Facilitate dialogue among ecosystem players • Support government reforms • Financial literacy awareness and education	• Can only act as catalyst
Civil Society	• Local contacts and knowledge in low-income markets • Credibility and trust • Relevant operations	• Enhance social and economic impacts of their activities • Drive development in general, in line with organizational mission	• Use mobile money to improve their lives	• Philanthropy-based, not-for-profit funding models • limit scale • Cultures and business processes may not easily lend themselves to partnership with business
End Users	• Relevant needs	• Reduce risk of carrying cash • Increased access and affordability of payment, remittance, and other financial services • Convenience of remote payment, remittance, and other financial services	• Use mobile money to improve their lives	• Lack of awareness • Limited financial literacy • Cultural and psychological resistance

Source: Beth Jenkins, Developing Mobile Money Ecosystems, IFC and Harvard Kennedy School (2008)

TABLE 2

Key Donors and Donor-Supported Groups Focused on Digital Financial Services

NAME	DESCRIPTION
Consultative Group to Assist the Poor (CGAP)	CGAP is an entity supported by 34 bilateral and multilateral development organizations and housed within the World Bank Group. Its focus is on promoting financial inclusion through innovation and evidence-based decision making. CGAP provides small grants, conducts research on DFS ecosystems, and publishes Focus Notes, Briefs, blogs, and papers to advance the state of knowledge within the field.
International Finance Corporation (IFC)	The IFC is also a member of the World Bank Group. The IFC conducts mobile money country studies with an eye to identifying potential markets for investment in private sector stakeholders.
UK Department for International Development (DFID)	DFID provided funding support for the launch of M-Pesa. In addition, DFID works through its country missions to generate public knowledge, fund innovative pilot projects, and support local industry development.
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	GIZ works closely with regulators and policymakers to develop enabling frameworks for financial inclusion.
Alliance for Financial Inclusion (AFI)	AFI is a network funded by the Gates Foundation and administered by GIZ. AFI members include regulators and policymakers from developing countries worldwide. AFI provides funding for regulatory technical assistance and supports information sharing among its members through exposure visits, workshops, working groups, and publications.
Bill and Melinda Gates Foundation	The Gates Foundation promotes the use of DFS as a means of promoting financial inclusion and access to formal savings services through its Financial Services for the Poor program. The Gates Foundation provides grants and loans and conducts and disseminates research to support these objectives.
GSM Association (GSMA)	The GSMA's Mobile Money for the Unbanked (MMU) program is funded by the Gates Foundation and aims to expand access to formal financial services via mobile phones. The MMU program conducts and disseminates research aimed at educating member MNOs on how to develop mobile money services with widespread outreach to include unbanked customers.
Better than Cash Alliance (BTCA)	The BTCA, co-founded and supported by USAID, supports and promotes efforts by government and private-sector stakeholders to transition from cash to electronic for payments such as pensions, salaries, social welfare, workfare, humanitarian assistance, and payments to suppliers. Members include governments, development partners, and private-sector stakeholders.
Cash Learning Partnership (CaLP)	CaLP is a USAID-supported consortium of humanitarian aid agencies that aims to "support capacity building, research and information sharing as a way to promote cash transfer programming as an effective tool to deliver aid in times of crisis." As part of its work, CaLP evaluates cash transfer programs using technologies such as mobile phones and debit/smart cards.

PART 3

REGULATORY ISSUES

Affecting the Growth of Inclusive Digital Financial Service Ecosystems

USAID
FROM THE AMERICAN PEOPLE

REGULATORY ISSUES

Affecting the Growth of Inclusive Digital Financial Service Ecosystems

THIS PART IS MOST RELEVANT FOR:
economic growth teams.

THIS PART WILL ENABLE YOU TO:
understand how regulatory frameworks can enable or hinder ecosystem growth.

Prof. Benno Ndulu, Governor, Enabling Mobile Money Policies in Tanzania," GSMA (2014).

After a humble beginning, when less than 1% of the adult population had access to mobile financial services in 2008, 90 percent had access by September 2013—an exponential increase. Likewise, active usage has shown similar improvement, with 43 percent of the adult population actively using this service in September 2013.

These encouraging results have emerged from a conducive regulatory environment, which we envisioned in the early days of mobile money services. Our approach was to test the deployment of the service and monitor its developments, known as the 'test and learn' approach.

We have learned that new technologies that augur well with the Central Bank's objective need to be nurtured and monitored closely to ensure they do not cause any financial instability or reputational risk that may affect the country's payment systems. This approach has made MFS in Tanzania a success story.

With the increased uptake of the services and based on the dynamics that we see in the market, we are currently shifting the regulatory approach to a "mandate and monitor" approach, whereby mobile payments regulations will be issued to guide the market without stifling innovation or disrupting the success we have witnessed. Rather, the regulations will ensure that we balance financial stability and financial inclusion objectives. In doing so, we will also continue to ensure that proportionate regulation is applied to the services deployed in the market.

Source: *Enabling Mobile Money Policies in Tanzania*, GSMA (2014)

Determining the appropriate level of regulation and supervision of any new, evolving sector is complicated. A successful balance of safety and innovation can foster rapid growth (such as in Kenya, the Philippines, and Tanzania); a more restrictive approach can lead to tepid growth (such as in Ghana and India). If growth is limited due to regulatory constraints, Sri Lanka found that it is possible to adopt a more permissive regulatory approach with positive consequences.

Regulators seeking to facilitate the development of a safe, enabling environment for digital financial services (DFS) face a number of challenges.

CHALLENGE A: Understanding the technology that underpins new digital financial services. DFS are a recent phenomenon, particularly in most developing countries. Though DFS present an opportunity to harness the power of technology to move beyond the status quo, stakeholders are often still in the process of understanding what the technology can do and how it operates. Both the private sector and regulators are still determining what "best" practices are, both for growing and regulating the ecosystem. Similarly, regulators often do not yet fully understand the effects of digital channels on existing regulatory frameworks.

CHALLENGE B: Anticipating the evolution of technology over time. Governments must become familiar with new digital services and plan ahead so that the regulatory framework keeps pace with technological evolution.

CHALLENGE C: Regulating the provision of financial services by new institutions. Typically, the central bank is the "lead" regulator of DFS because of its capacity to regulate financial services, although it usually has limited experience regulating nonbank actors such as mobile network operators. Moreover, DFS often depend on access to mobile phones and network connectivity, both of which typically are regulated by the telecommunications ministry. Each regulator's role should be clearly defined and complementary.

CHALLENGE D: Regulatory capacity. Regulators often lack financial or technical resources to adequately oversee and regulate new types of services (often offered by newly regulated institutions). The services are just one part of a massive portfolio. Even if regulators are motivated and supportive of financial inclusion efforts, they may be unable to devote resources to them. In certain markets, this has led regulators to allow only fully licensed financial institutions to offer such services, hindering new competition and the rise of new business models.

CHALLENGE E: Increasing financial inclusion while understanding and mitigating the risk of money laundering and terrorist financing. Rules developed to mitigate the risk of money laundering, terrorist financing, and other forms of financial sector abuse are often not designed with poor and underserved customers in mind. If strict customer identification and verification requirements are applied rigidly to poor and underserved clients to prevent crime, then the poor may be shut out from the formal financial system entirely. In some countries, much of the population lacks a driver's license, national ID, or other accepted form of identification. Rules also often require verification of home address, yet many people lack a formal address. A risk-based regulatory approach can resolve some of these challenges.

Fundamental to fostering growth of these systems is understanding that every market is different. A business model that might work in Morocco might not be viable in Colombia, where the prevalence of microfinance institutions is much higher and can affect both the business case and the apparent utility of DFS for consumers. Barriers to consumer adoption might be different in the

Philippines—where mobile use is pervasive—and Mali, where access to mobiles is still quite low and illiteracy is higher (see Part 6 for a more detailed discussion of factors affecting the market for DFS in different countries).

Nevertheless, a well-crafted regulatory environment forms one of the four key pillars of the digital financial service ecosystem:

1. A proportionate, risk-based regulatory framework
2. A viable business model for investment
3. A distribution network (both technical and institutional) with appropriate incentive structures that connects a critical mass of users
4. A consumer base that is aware of, understands, has access to, and derives value from the services delivered through the ecosystem

What are the key regulatory aspects affecting inclusive digital financial services?

An appropriate regulatory framework is critical. Made too restrictive, it can prevent necessary investment (particularly from the key market players: MNOs and banks), undermine competition, prevent market entry by innovators, and scuttle innovative approaches to long-standing problems. Made too lax, it can harm consumer protection, undermine trust in the sector, and leave new, digital engines for economic growth unnecessarily conducive to fraud, money laundering, and terrorist financing.

The goal, then, is to strike a balance between safety and openness. In practice, that balance must be struck for a range of areas that may vary in importance, depending upon the particular country context. CGAP has developed a branchless banking diagnostic template that addresses twelve important regulatory issues. The first six issues listed below generally should be addressed early on to foster sector growth, while the last six often become increasingly important as the sector grows.

1. Role of non-banks in providing DFS
2. Use of agents
3. Rules on money laundering and terrorist financing
4. Prudential regulations governing deposits and payments
5. Consumer protection
6. Regulation of payment systems
7. Competition
8. Data privacy
9. Cross-border payments
10. Electronic commerce regulation
11. Regulation of telecommunications services
12. Taxation

USEFUL RESOURCE:

- Branchless Banking Diagnostic Template, CGAP (2010).

ISSUE NO. 1: Role of non-banks. One question is debated more than any other—the answer to which can have a cascade effect on all areas the regulatory framework covers:

> To what extent can non-banks (like MNOs and other providers) engage in DFS-related activities that typically are off-limits to non-financial institutions?

Although providers can collaborate in many ways to offer DFS, models can be grouped into two categories: bank based and non-bank based:

- Bank Based: Bank-based services are those in which the regulatory responsibility and the contractual relationship with the customer lie with a bank or other licensed and prudentially

regulated institution (such as a microfinance deposit-taking institution), even though MNOs, PSPs, and TSPs often play important roles in bank-based models.

- Non-bank Based: In some countries, regulators have permitted MNOs and other PSPs to obtain a license to issue electronic money. In these countries, the regulatory responsibility and the contractual relationship with the customer lie directly with the MNO (or in some cases, a subsidiary of the MNO that is limited to e-money services).

Generally speaking, mobile money has grown rapidly in countries that have permitted either (1) a non-bank-based model or (2) a bank-based model in which MNOs are given wide latitude and banks are required to bear responsibility for only a limited subset of issues (such as regulatory approval and safeguarding customer funds). The following graphic offers examples of the variety of roles that an MNO can play in a mobile money service, depending on the regulatory framework, but also on market incentives.

As noted in Part 1, MNOs and mobile phones offer much broader outreach to poor and underserved communities than traditional financial institutions. In many countries, however, regulators have been reluctant to allow an institution with a telecommunications license to directly provide financial services, citing concerns about issues such as consumer protection, safeguarding customer funds, and prevention of money laundering and terrorist financing. In addition, many regulators have questioned whether the legal framework would permit a non-bank institution to accept funds from customers, since this could be considered deposit-

FIGURE 1

Level of involvement of MNOs

MNO as Channel Only	MNO Leads Scheme, but with Significant Bank Involvement	MNO Leads Scheme, but Bank Issues Account	MNO Leads Scheme and Issues Account
XacBank (Mongolia)	SmartMoney (Philippines)	MTN MobileMoney (Uganda, S. Africa)	M-Pesa (Kenya)
Zanaco (Zambia)	M-Shwari (Kenya)	EasyPaisa (Pakistan)	GCash (Philippines)
	OrangeMoney (Kenya)	OrangeMoney (Senegal)	
Bank-Based	Bank-Based	Bank-Based	Nonbank-Based

Least MNO Involvement — Most MNO Involvement

Source: *Authors*

taking—typically an activity restricted only to banks and other licensed financial institutions.

Over time, however, as the technology has become better understood and non-financial institutions have shown an ability to offer DFS responsibly, many regulators have moved to a middle-ground approach. Some countries allow non-financial institutions to directly issue electronic money *if* they comply with a limited set of tailored regulations (discussed below) that are less comprehensive than those that apply to full-fledged banks and other financial institutions. In such countries, MNOs and other non-financial institutions must obtain a license and/or authorization to offer DFS. Many regulators require the applicant to establish a separate subsidiary for financial services that answers directly to the financial regulator.

Regulators in countries as diverse as Afghanistan, Brazil, Kenya, Malawi, Namibia, Perú, the Philippines, Sri Lanka, and Tanzania have chosen, in different ways, to allow non-financial institutions to offer DFS after being licensed or registered according to the service they intend to offer. In this way, regulators are beginning to focus more on what the service is (and its risks) and less on who provides the service.

USEFUL RESOURCES:

- Mobile Financial Services: Regulatory Reporting, AFI (2013)
- Mobile Financial Services: Supervision and Oversight of MFS, AFI (2014)
- Nonbank E-Money Issuers: Regulatory Approaches to Protecting Customer Funds, CGAP (2010)

ISSUE NO. 2: Who can serve as agents for digital financial services? In most markets, inclusive DFS won't happen without an adequate distribution network. Bank branch networks are quite small, so it is critical that the regulator permit non-bank agents to perform cash-in and cash-out transactions and serve as the primary access point for at least a subset of core services: account registration and basic transactional services such as cash-in, cash-out, and payments.

Agents can include small shops, agribusiness distributors, airtime resellers, pharmacists, or chain stores. Whoever they may be, most regulators permit non-bank agents if they are licensed or registered and adequately trained and overseen, and if the provider assumes responsibility for services provided by the agent to the customer. In some cases, like in Kenya, policymakers have amended the Banking Law to clarify that agents may provide these services.

In certain markets, growth has been affected by licensing requirements. In Indonesia, for example, MNO mobile money service providers had an average of 25 locations licensed for cash-out nationwide because the regulations only allowed cash-out at outlets that were managed directly by the MNO and had obtained a remittance license directly from the Bank of Indonesia.

USEFUL RESOURCE:

- Fighting Poverty Profitably: Transforming the economics of payments to build sustainable, inclusive financial systems, Gates Foundation (2013)
- Regulating Banking Agents, CGAP (2011)

ISSUE NO. 3: How well adapted are Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) measures to actual risks presented by the services? AML/CFT measures must be risk-sensitive (proportionate to the level and nature of risk presented by DFS). If they are too onerous, financial *exclusion* becomes a real risk and the system's ability to prevent and address abuse will suffer.

A key component of any AML/CFT regime that uses a risk-based approach is allowing simplified customer due diligence (CDD) to the extent appropriate, both at the point of account registration and for transactions below a certain amount or for a particular low-risk profile. Simplified CDD can empower agents to register consumers for accounts without having to wait for a bank or central office to act, often days or weeks after the fact. In addition, simplified CDD regimes may allow poor customers to use alternative forms of identification and address verification. In Fiji, for example, financial institutions may accept a letter from a village chief identifying the person and verifying their address.

For a detailed discussion of international guidance on the use of a risk-based CDD approach, see Annex. 3.1.

A common measure for mitigating risk tied to simplified CDD is to set transaction and balance limits. These limits should be set high enough to be useful for everyday transactions, yet low enough to discourage the use of such channels for money laundering, terrorist financing, or other illicit activity. Regulators may choose to set one limit for all non-traditional accounts or multiple limits for different account tiers. In Mexico, for example, there are four account tiers, ranging from Tier 1 (an entry-level account with very low transaction and maximum balance limits and no CDD requirements) to Tier 4 (a full bank account with full CDD requirements). See Annex 3.2 for a summary of Mexico's tiered system and Annex 3.3 for examples of transaction and balance limits in selected countries.

USEFUL RESOURCES:

- Mobile Money: Methodology for Assessing Money Laundering and Terrorist Financing Risks, GSMA (2010)
- Protecting Mobile Money against Financial Crimes: Global Policy Challenges and Solutions, World Bank (2011)

ISSUE NO. 4: How do prudential regulations for deposits and payments affect the use of agents, launch of digital financial services, and involvement of non-financial institutions? The core services made possible by DFS using agents, mobile phones, and other non-bank infrastructure—account opening, cash-in/cash-out, store of value, and transfers—are similar to many of the financial services offered directly by traditional financial institutions. Two core features of bank accounts are usually not permitted for mobile money accounts: (1) interest on the account balance and (2) deposit insurance (although regulators are beginning to consider allowing such features in response to customer demand and advocacy from CGAP and other stakeholders). Prudential issues include:

- Safeguarding Customer Funds: Prudential regulations (such as reserve and capital requirements) primarily aim to ensure the stability of the banking sector and to minimize the risk to customers who place their funds into the system. These goals are relevant to DFS like mobile money, too, in that consumers should be confident that the balance in their mobile money accounts is protected in the event of the failure of either (1) the MNO (or other electronic money issuer) or (2) the bank that holds the funds equivalent to the aggregate outstanding mobile money funds (the "float") in an account opened by the MNO. In the non-bank-based model, regulators typically require MNOs or other non-bank electronic money issuers to store the float in safe investments, such as pooled deposit accounts in commercial banks or government bonds. Many countries require these funds to be protected from the provider's creditors in the event of insolvency, either through a trust or similar account that is separate from the provider's other assets and is legally "ringfenced." Many countries also require non-bank electronic money issuers to comply with minimum capital requirements (see Annex 3.4 for examples from selected countries).

- Deposit-taking and Banking Business: Prudential regulations governing who may accept deposits and how these funds may be invested can limit the types of permissible DFS business models. In some countries, only licensed banks may accept deposits, in which case either (1) the funds accepted by an electronic money issuer would have to avoid the definition of "deposit" or (2) the non-bank-based model would be prohibited. In Namibia and the Philippines, for example, funds accepted by electronic money issuers are not considered deposits. If they were, non-bank entities would not be permitted to offer this services directly. Another issue is the definition of "banking business." In Kenya, for example, the Central Bank of Kenya determined that Safaricom's M-Pesa could only launch as a non-bank-based model if Safaricom did not earn any interest or other investment return on the float, since otherwise Safaricom would be engaged in "banking business" illegally.

- Liquidity Management: At the agent level, consumers may not be able to cash out their mobile money funds if the agent does not have adequate liquidity on hand. Although occasional lack of liquidity at an individual agent is not necessarily cause for concern, chronic liquidity issues can undermine confidence. Providers can mitigate these risks by developing proper agent liquidity management policies and processes, placing agents well, educating customers, and obtaining reliable agents.

Prudential requirements are important, but non-bank DFS providers have different risk profiles than full-fledged banks and should thus be treated differently. If treated the same, DFS providers and their agents would face significant obstacles to extending services far beyond bank branch infrastructure.

USEFUL RESOURCES:

- Understanding Financial Regulation and How It Works, GSMA (2008)
- Putting the Banking in Branchless Banking: Regulation and the Case for Interest-Bearing and Insured E-money Savings Accounts, Ehrbeck and Tarazi (2011)
- Nonbank E-Money Issuers: Regulatory Approaches to Protecting Customer Funds, CGAP (2010).

ISSUE NO. 5: Are adequate consumer protection measures in place? Safety and trust in DFS depend on adequate consumer protection measures. Certain laws may already be in place generally, but DFS can raise new concerns, such as consumers with limited education receiving financial services from agents located far from oversight. At minimum, it's critical to align these new concerns with existing, applicable requirements (and the regulators that might enforce them).

Consumer protection measures touch on an array of issues: transparent pricing; clear, accessible, and meaningful means for handling complaints and other problems; protection of consumer funds; data privacy; and risks unique to electronic payment systems.

USEFUL RESOURCE:

- Mobile Financial Services: Consumer Protection in MFS, AFI (2014)
- Protecting Branchless Banking Consumers: Policy Objectives and Regulatory Options, CGAP (2010).

ISSUE NO. 6: Are payment systems regulated and overseen in a way that fosters inclusion? Payment systems knit financial institutions together and are the backbone of all systems that transfer funds. Payment systems consist of processes, parties, and technical network infrastructure on which funds travel and transfers are both cleared and settled.

Primary participants are banks, but non-financial institutions often occupy key roles in payment systems, such as managing the switches that connect networks and banks together.

The payment system must be equipped to handle a high volume of generally low-value transactions of the sort that typify DFS like mobile money. The regulator should ensure that all service providers can access the payment system on a fair, competitive basis, just as the regulator should ensure that non-MNO service providers can access SMS and USSD channels equitably.

Interoperability—essentially the ability to perform transactions across different networks—is a core issue for payment systems. Where it exists, it can lead to more innovation, more competition, and more affordable transactions. But to achieve it requires careful attention to market dynamics so that you preserve incentives to invest and avoid reinforcing dominant market positions.

Rather than mandating full interoperability from the beginning, regulators can require providers to develop systems using open technical standards that will facilitate low-cost interoperability in the future. Regulators and policymakers then can monitor the market to determine the appropriate time to mandate interoperability (unless providers voluntarily interoperate sooner).

USEFUL RESOURCES:

- Mobile Banking Technology Options: An Overview of the Different Mobile Banking Technology Options, and Their Impact on the Mobile Banking Market, FinMark Trust (2007)
- Interoperability and the Pathways Towards Inclusive Retail Payments in Pakistan, CGAP (2010)
- A2A Interoperability – Making Mobile Money Schemes Interoperable, GSMA (2014).

ISSUE NO. 7: Are both competition and innovation fostered among digital financial services? In many countries, the telecommunications sector is either highly concentrated or highly competitive. Dominant MNOs will primarily see DFS as a means to reinforce market share by increasing subscriber loyalty. Non-dominant MNOs will often see DFS as a means to reach new customers with new services that incentivize subscribers to switch.

These dynamics also play out across stakeholder groups. MNOs control telecommunications infrastructure, which can create opportunities to stifle competition by banks or start-ups that depend upon access to that infrastructure for DFS. On the other hand, the traditional dominance of banks in financial services can dissuade them from partnering with MNOs and other start-ups with innovative ideas, particularly if only a bank-based model is permitted. Competitive dynamics also affect interoperability, which has a direct and immediate effect on the affordability and availability of DFS to consumers.

Another important competition issue relates to agent exclusivity. In many markets, first-movers have required their agents to sign exclusivity agreements that prevent them from offering DFS on behalf of other providers. Proponents of such agreements argue that first-movers need to have time to recoup their initial costs of identifying and training agents. Opponents argue that exclusivity arrangements limit competition, raise costs, and impoverish agents (thereby negatively affecting the sector as a whole). The trend is for countries to prohibit agent exclusivity.

ISSUE NO. 8: How is data privacy ensured? In most countries, data protection is already addressed to some degree in laws and regulations specific to the banking sector, the telecommunications sector, and, to a lesser degree, in broadly applicable consumer protection rules. DFS are affected by all three spheres, and their unique operational aspects mean

that the government may have to: (1) revise rules to accommodate certain types of information-sharing between parties that may operate under different privacy rules (such as banks sharing information with MNOs); and (2) strengthen certain rules to ensure that service providers only use consumer information under clear guidelines and limits.

Significant data privacy implications are also presented by a series of innovative business models that harness mobile usage data to generate a risk profile that financial service providers (not just those offering DFS) can use to offer credit to consumers who lack a credit history (see discussion in Part 1). Robust data security systems are important to prevent unauthorized access to this data.

USEFUL RESOURCES:

- Mobile Financial Services: Technology Risks, AFI (2013)
- Mobile Financial Services: Consumer Protection in MFS, AFI (2014)
- Protecting Beneficiary Privacy: Principles and Operational Standards for the Secure Use of Personal Data in Cash and E-transfer Programmes, CaLP (2013)
- Can Digital Footprints Lead to Greater Financial Inclusion?, CGAP (2012)
- Regulatory Considerations for the Use of Mobile Records for Retail Credit Scoring, GSMA (2013)
- Four Ways Big Data will Impact Financial Inclusion, Center for Financial Inclusion (2014).

ISSUE NO. 9: How are international remittances and other cross-border transactions treated for digital financial services? Over $410 billion in remittance flows were sent into developing countries in 2013. Millions of people send recurring payments to family members along remittance corridors, such as into the Philippines, from South Africa and Russia to many nearby countries, and across both East and West Africa. DFS and the use of agent networks present an opportunity to inject value into the ecosystem, reduce transaction costs, and even enable end-to-end transfers, such as from a sender's mobile account in Malaysia directly into a mobile money account in the Philippines.

For cash-out of international remittances through an agent or receipt of international remittances directly into mobile money accounts to happen, a number of regulatory issues need to be addressed, including the permissibility of using a mobile for cross-border payments and the transaction limits, CDD requirements, and disclosure requirements that apply.

USEFUL RESOURCES:

- International Remittances and Branchless Banking: Emerging Models, CGAP and Dalberg (2013)
- General Principles for International Remittance Services, World Bank (2007)
- Remittance Markets in Africa, World Bank (2011).

ISSUE NO. 10: What laws and regulations exist with respect to electronic commerce? Laws governing electronic commerce help to create an enabling environment for DFS by according equal legal weight to electronic and paper transactions. Common rules govern the creation and reliance on digital signatures, the equivalence of digital with paper documents for the sake of legal matters, and the permissible use and protection of digital data. Providers may hesitate to invest if these rules are not in place. In Malawi, for example, some banks expressed concern as recently as 2008 about the legal risk they were incurring through the use of electronic channels, since the law in force (dating back to 1967) only listed cash and checks as legal means of payment.

USEFUL RESOURCE:

- Model Law on Electronic Commerce, UNCITRAL (1999).

ISSUE NO. 11: What telecommunications laws and regulations affect the delivery of digital financial services? It is critical for telecommunications laws and regulations to align with financial laws and regulations. These two spheres orbit certain common issues, including the use of certain channels for services, competition, consumer protection, licensing, and oversight. Of particular importance to DFS are fair and inclusive access rights for non-MNO financial service providers to the network infrastructure and mobile handsets owned by MNOs; competition rules; and rules governing the use and protection of data transmitted over networks.

USEFUL RESOURCE:

- What Is the Telecom Regulator's Role in Fostering Mobile Money?, Mas (2012).

ISSUE NO. 12: How are digital financial services affected by taxes? As DFS (particularly mobile money services) have grown, countries like Zimbabwe, Kenya, and Uganda have begun to view taxes on mobile money transactions as a way to raise much-needed revenue. Opponents argue that these taxes are regressive and will discourage the adoption of DFS, although little evidence so far shows long-term effects on ecosystem growth. Excessive taxation could lead customers to revert to informal channels, however, so governments must weigh the economic benefits of revenue generation against the risk of discouraging the use of formal channels.

PART 4

STRENGTHENING ECOSYSTEMS

How USAID Can Strengthen *Inclusive Digital Financial Service Ecosystems*

USAID
FROM THE AMERICAN PEOPLE

STRENGTHENING ECOSYSTEMS

How USAID Can Strengthen *Inclusive Digital Financial Service Ecosystems*

THIS PART IS MOST RELEVANT FOR:
program and economic growth teams.

THIS PART WILL ENABLE YOU TO:
understand the common areas in which USAID is uniquely capable of playing a role in strengthening digital financial service ecosystems as you pursue development outcomes across sectors.

As a donor, USAID has the profile and capability to engage in digital financial service (DFS) ecosystems at multiple levels—depending on whether you want to foster DFS ecosystem development, use DFS within USAID's programs, promote market-level adoption and use, or do all three.

Both the scope and timing of how USAID chooses to engage will be informed primarily by three factors: (1) your development objectives (which indirectly reflect the availability of resources), (2) the ecosystem's degree of development, and (3) the activities of other ecosystem stakeholders.

These factors are intertwined. As an ecosystem evolves, USAID's development objectives will permit more, less, or simply different types of engagement. Both *who* key stakeholders are and *what* they do will change. In any case, as the ecosystem evolves, so too will each stakeholder's comparative advantages, incentives, and resource availability.

Understanding USAID's and other donors' comparative strengths and weaknesses will help you to collaborate effectively and use resources efficiently. As noted in the introduction, particular USAID strengths that you should be sensitive to include policy advocacy, fostering demand for digital financial services, and collaboration with service providers:

What comparative strengths and weaknesses do donors typically have in developing digital financial service ecosystems?

DONOR COMPARATIVE STRENGTHS

- Focus on Poor/Underserved: Of all the stakeholders in the ecosystem, the perspective of poor and underserved groups is often the least represented. In light of their mission, however, donors can leverage their influence to ensure that their perspective is considered, such as by advocating for flexible customer identification requirements and providing financial incentives for providers to extend services to poor and underserved communities.

- "Soft" Funds for Experimentation and Innovation: Donors are not primarily driven by considerations of short-term profitability. This perspective facilitates experimentation and innovation and allows donors to design projects

with outputs and outcomes that emphasize lessons learned. In addition, donors are well-suited to supporting "public good" research that can be disseminated widely and can benefit the entire ecosystem.

- Role as Neutral Third Party: Donors can facilitate dialogue and provide opportunities to share and learn, such as through working groups and study tours.

- Relationships with Governments: Donors can support government efforts to develop an enabling policy and regulatory framework through technical assistance, capacity-building, and study tours. Donors also can offer support to policymakers on how to deliver social payments, salaries, and other government payments using DFS.

- Ability to Build Requirements for Digital Financial Services into Funding: Donors can influence the development of DFS ecosystems by requiring or encouraging recipients of donor funds to use DFS whenever possible.

DONOR COMPARATIVE WEAKNESSES

- Funding Limitations and Timelines: Donor funds may be subject to certain restrictions and long, drawn-out processes for their disbursement. Likewise, donor timelines may not align with those of other stakeholders (particularly investors, service providers, and governments with upcoming elections).

- Staff Turnover: Frequent rotation and replacement of expatriate staff and Mission leadership can affect the long-term sustainability of efforts to strengthen DFS ecosystems.

- Limits on Ability to Effect Change: While donors can support the development of DFS ecosystems, other stakeholders may be reluctant to embrace DFS for a number of reasons:

  - Customer Level: Poor and underserved customers often are risk-averse, due in part to their low margins for error. Many have limited formal education and lack experience with technology and formal financial services, which affect their ability to understand and trust DFS.

  - Micro Level: Most service providers require a clear business case before experimenting, innovating, and developing products that target underserved customers. Donor-sponsored pilots or demonstrations of DFS may fail if the service providers does not perceive an underlying business case, particularly in serving rural and low-income communities.

  - Macro Level: At the macro level, resources, capacity, and incentives may counteract the desire to foster disruptive innovation. Regulators and other government entities often have limited resources and technical capacity, and financial inclusion and DFS are just a couple of the many issues within their mandate. Issues of political economy also come into play, since innovative services may affect the relative influence of different government entities. For example, banking supervisors may view the rise of non-bank-based providers as a threat to their core business. Similarly, financial regulators who are rewarded for ensuring financial sector stability may be reluctant to give new providers latitude to use innovative technologies and delivery mechanisms.

What should USAID consider when seeking to strengthen digital financial ecosystems?

Mission staff who are interested in strengthening DFS ecosystems should inform their approaches with the following principles:

1. Focus on the potential impact of DFS on poor and underserved communities. Ultimately, ecosystem strengthening is premised on the idea that DFS offer great potential for improving the lives of communities that have had limited access to formal financial services. USAID has the mission and relationships to help ensure that stakeholders understand the perspectives and needs of these communities. For example, simply releasing new regulatory guidelines for DFS isn't enough if they restrict access to only those with an official national ID and permanent home address in countries where many poor customers lack one or both.

2. Engage in ways that are likely to promote full financial inclusion. However you support the development of DFS, it is important not to lose sight of the ultimate objective of promoting financially inclusive ecosystems that also can help to meet other development sector goals. For example, you should try to avoid supporting the development of a proprietary digital financial service that cannot facilitate access to other financial services.

3. Aim for scaled use of DFS. Profits in DFS depend on high transaction volumes. Although individual transactions yield low margins, they also yield low incremental costs. And once network effects (where the utility of DFS rises as more people use them) kick in, the volume of transactions will grow rapidly. Consequently, policies that facilitate scale (like interoperability and agent non-exclusivity) should generally be promoted, although such policies may not be appropriate at early stages of market development (see discussion in Part 3, Issues 6 and 7). For an in-depth discussion of scale in the context of DFS in general and mobile money in particular, see Annex 4.1.

4. Aim to strengthen the ecosystem overall, not just individual stakeholders. Your goal should be to strengthen the ecosystem as a whole, even if you work with particular firms. While support for pilot or demonstration projects with individual providers can be useful, you should strive to generate public goods and disseminate insights as much as possible. For example, you can support pilot projects that explore the viability of novel business models or that demonstrate how DFS might be tailored to the needs of women or rural communities.

5. Understand private sector stakeholder incentives and commitment. It's helpful to know how much value the target market can be expected to offer private sector stakeholders and how committed senior management are before you support an innovation.

6. Seize opportunities to move from cash to electronic payments. You can encourage governments to join or support the principles of the Better Than Cash Alliance. This can form the basis of a strong political commitment to financial inclusion and DFS.

7. Be Patient. DFS ecosystems are developing quickly, but achieving scale and reaching the poorest and most underserved takes time. Targeted technical assistance and capacity building for regulators can be particularly effective, but it may take some time before such initiatives lead to a discernible impact in the lives of the poor.

How are USAID and other donors working to strengthen digital financial service ecosystems?

Donors can apply their comparative advantages to strengthen the ecosystem for DFS through initiatives taken at the customer, micro, meso, and macro levels.

CUSTOMER LEVEL: Donors can support efforts to sensitize and train customers on how to use DFS. For example, ASI, a subsidiary of USAID-supported ACDI/VOCA, is helping to sensitize Ghanaian smallholder farmers on the benefits of receiving payments via mobile money wallets.

MICRO LEVEL: Although donors generally try to avoid "picking winners" in DFS ecosystems, many donors choose to support specific service providers who are willing to work with donors to achieve mutually beneficial results.

ACCELERATING THE DEVELOPMENT OF DIGITAL FINANCIAL ECOSYSTEMS

In 2012, USAID and Citi came together to articulate "10 Ways to Accelerate Mobile Money," reflecting focus areas that sector leaders identified for coordinated action to achieve economies of scale. Generally speaking, these recommendations are as applicable to DFS as to mobile money.

1. Ensure digital financial services are safe and transparent.
2. Establish an inter-agency government process to coordinate decisions affecting digital financial services.
3. Leverage digital financial services for government and donor payments and collections.
4. Encourage retailers (particularly those with large distribution networks, like fast-moving consumer goods companies) to adopt digital financial services.
5. Promote open-architecture policies and interoperability within and across ecosystems.
6. Allow remittances traveling by way of digital financial services to move seamlessly and affordably across borders and mobile networks.
7. Pilot programs to test innovative approaches, conduct impact analyses, and develop replicable opportunities to scale.
8. Ensure people are adequately protected through client education and consumer protection measures.
9. Facilitate the ability of people to cash in and out of their digital accounts.
10. Account for and resolve the low proportion of people with full identity documentation.

See Annex 4.2 for a discussion of each of these accelerators.

- Technical Assistance: Donors can offer technical assistance to institutions that hope to use or launch DFS. In the Philippines, USAID supported over 70 members of the Rural Banks Association of the Philippines to develop and launch mobile payment platforms for microloan payments and other banking services. Similarly, GIZ has been supporting rural banks in Indonesia to develop mobile payment services.

- Funding: In certain cases, donors also may provide funds directly to particular service providers. Typically, this is done to achieve one or more of the following objectives:

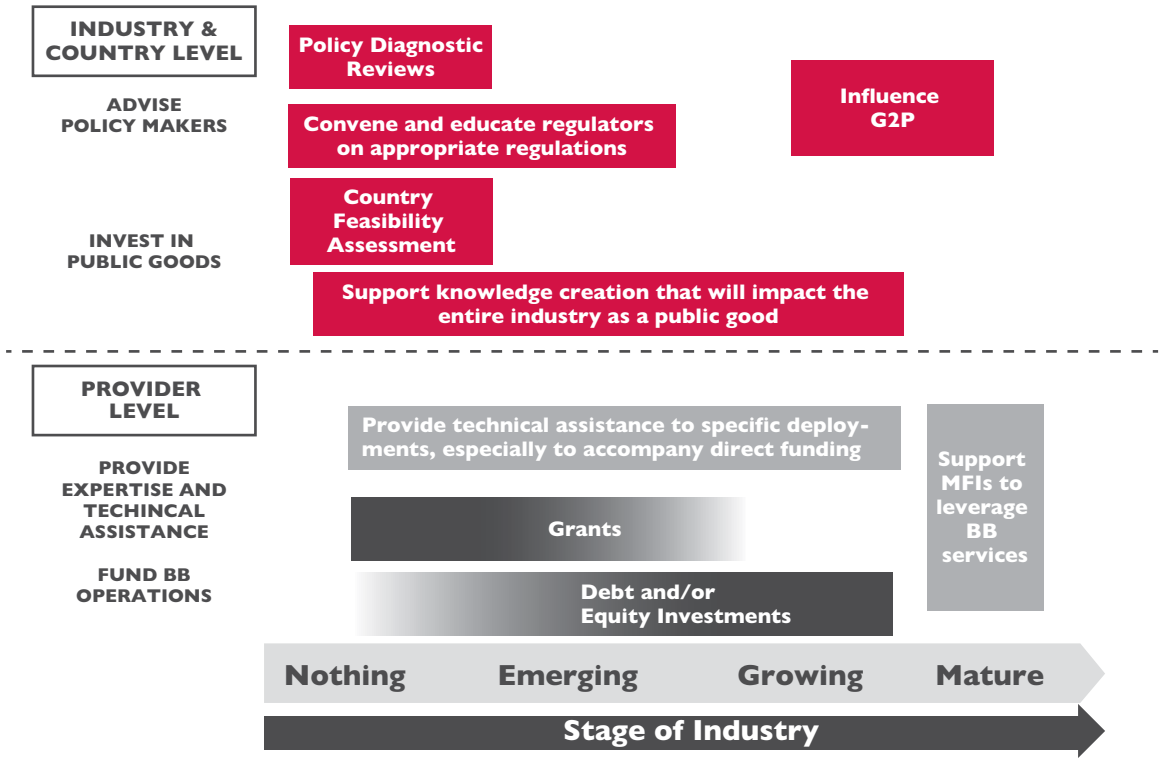
  - » Jumpstarting innovation and market development: Donors may support innovative services that investors may not yet consider viable. Perhaps the most successful example was DFID's decision to provide Vodafone with £1 million to develop M-Pesa. After the ecosystem is already functioning, donors can promote efforts to launch new innovative products such as savings, credit, or insurance.

  - » Developing public goods: Donors may offer financial support to providers in exchange for the right to publish studies and share insights for the benefit of the whole ecosystem (and for stakeholders in other countries as well).

  - » Focusing on poor and unbanked: Donors may offer funding in exchange for

FIGURE 4

Potential roles of public funders in branchless banking



Source: *Emerging Lessons of Public Funders in Branchless Banking, CGAP (2011)*

efforts to reach poor and underserved communities. For example, UNCDF and AusAID successfully subsidized Digicel and Vodafone's effort to build a rural mobile money agent network in Fiji.

MESO LEVEL: Donors often commission "public good" research to produce and disseminate useful information that can strengthen the ecosystem as a whole. These public goods are meso-level interventions, since they aim to benefit all stakeholders.

- Multi-country: Donors can produce guidance that is relevant across many countries. Examples include:
  - » CGAP has worked extensively to distill findings from particular country experiences to extract key lessons for other countries that may be interested in replicating this experience. Two of the many examples include an Agent Management Toolkit and a Branchless Banking Diagnostic Template.
  - » USAID has developed a Mobile Financial Services Risk Matrix identifying key MFS risks and potential policy responses.
  - » Cash Learning Partnership (CaLP) has produced a series of excellent tools for implementing cash transfer programs, particularly for using non-cash methods (such as e-vouchers and mobile money) to deliver humanitarian assistance.
- Country-specific: Donors can fund country-specific knowledge creation studies. Examples include:
  - » USAID has conducted country-specific branchless banking or mobile money feasibility assessments in many countries, including El Salvador, Ethiopia, Indonesia, Kenya, Mexico, Nigeria, Tanzania, Uganda, and West Bank and Gaza.
  - » CaLP launched Cash Atlas in 2013, a mapping tool that visualizes all cash-transfer programs worldwide, including details at the national, sub-national, and organizational levels. Projects are categorized by budget, timeline, and sector, among other parameters. As of April 2014, the atlas documented 486 projects working with over 17 million beneficiaries.
  - » DFID has funded the establishment of trusts (most prominently FSD Kenya and Finmark Trust) and other entities focused on knowledge generation related to financial sector development in countries such as Kenya, Rwanda, Zambia, Tanzania, South Africa, and Nigeria.
  - » The Bill and Melinda Gates Foundation launched FSP Maps in 2013, a useful interactive tool that maps in detail the locations and types of access to financial services that exist in Bangladesh, Kenya, Nigeria, Tanzania, and Uganda. The maps visualize the location and density of mobile network coverage and of financial institutions of all sorts, including mobile money agents.
  - » GSMA has also produced useful reports that examine the regulatory context or broader stage of maturity of mobile money ecosystems, most recently for Tanzania, the Philippines, Indonesia, Sri Lanka, and the DRC.
  - » IFC has conducted a range of "scoping reports" on the opportunity presented by the market for mobile money investments in Bangladesh, Brazil, Colombia, Ecuador, Egypt, India, Mexico, Nepal, Peru, Sri Lanka, and Tunisia.

» UNCDF launched Making Access Possible (MAP) in 2012 to complete richly detailed diagnostics of the level of financial inclusion in up to 22 countries. The goal is for each diagnostic to lead to a national financial inclusion roadmap that stakeholders could endorse and pursue in a harmonized way. By the end of 2013, diagnostics had been completed or were underway in Botswana, Burma, Cote D'Ivoire, Democratic Republic of the Congo, Lesotho, Malawi, Mozambique, Swaziland, and Thailand.

MACRO LEVEL: Donors are well-positioned to support the development of enabling legal and regulatory frameworks. Example engagements include:

- Policy Diagnostics: As a first step, donors may commission policy diagnostics to assess key regulatory issues and challenges and inform subsequent regulatory reform efforts. Examples include:

  » DFID provided funding to CGAP to conduct branchless banking country diagnostic reviews in seven countries. CGAP has conducted similar diagnostics in many countries around the world, including Argentina, Brazil, Colombia, India, Indonesia, Mexico, Kenya, the Philippines, Russia, and South Africa.

- Support for Regulatory Reform: After the diagnostic has been conducted and/or a financial inclusion plan is in place, donors can provide technical assistance. Examples include:

  » USAID has worked in a number of countries to support the development of enabling DFS regulatory frameworks. Examples include Afghanistan, Burma, Colombia, Indonesia, Liberia, Malawi, the Philippines, and Yemen.

  » GIZ has seconded staff to work on a long-term basis within the Bank of Uganda on a number of topics, including development of a regulatory framework for agent banking and mobile financial services.

  » AFI facilitates opportunities for member institutions to learn from members in other countries through study tours and working groups. AFI also supports members through grants for direct technical assistance.

- Convening Diverse Policymakers and Stakeholders: Ministries and other government bodies that represent agriculture, health, education, pensions, taxation, and utilities (among others) should be brought into discussions about how to harness the power of DFS to achieve other government and social objectives. Furthermore, private sector stakeholders should be consulted to ensure that policies and regulations create an enabling environment for DFS.

  » The USAID-Citi Mobile Money Accelerator Alliance has recommended that governments establish an inter-agency committee to coordinate government policy internally and to communicate this policy to the private sector and other external stakeholders.

  » Working groups that facilitate dialogue between public- and private-sector stakeholders can help to ensure that regulations are developed in a consultative manner and will facilitate successful business models in practice. In Malawi, USAID worked with donors to bring together regulators, policymakers, donors, MNOs,

and banks and form the Mobile Money Coordinating Group.

- Promoting Use of E-Channels for G2P: Donors can encourage countries to adopt DFS for government-to-person (G2P) payments. Examples include:

  - The Better Than Cash Alliance (BTCA) encourages governments to commit to efforts to transition from cash to electronic payment methods.
  - The Pacific Financial Inclusion Programme (PFIP), funded by the UNCDF and other donors, worked with Fiji's Department of Social Welfare to transition welfare recipients from cash payments to bank accounts accessible at ATMs and merchant shops using debit cards.

For more examples of how USAID and other donors are working to strengthen DFS ecosystems, see Annex 4.3.

PART 5

USING ECOSYSTEMS

How USAID Can Use Inclusive Digital Financial Services Across Its Programming

USING ECOSYSTEMS

How USAID Can Use Inclusive Digital Financial Services Across Its Programming

THIS PART IS MOST RELEVANT FOR:
program and technical offices.

THIS PART WILL ENABLE YOU TO:
identify opportunities for using digital financial services for Agency programming.

An inclusive digital financial service (DFS) ecosystem is fundamentally sector-agnostic—it is tantamount to a digital rail on which a great variety of services and transactions can move, whether in health, agriculture, governance, energy, finance, or other important development sectors. This means that the question most often is not if the ecosystem is relevant to USAID's development objectives, but *how*.

This part is relevant if you conclude that the ecosystem is mature enough for USAID to participate in it while pursuing a range of development objectives. Depending on the country, your conclusion might be the result of your general awareness of the market's maturity. Alternately, it might be the result of a USAID- or donor-funded assessment discussed in Part 6.

How can USAID use digital financial services across its programs?

Just as they offer direct benefits to poor and underserved communities, DFS offer direct benefits to Missions as well. USAID can expect the use of DFS to achieve:

- Direct efficiency gains and increased returns on investment.
- Enhanced ability to achieve key policy and program objectives.
- Additional benefits (such as safety and transparency).

1. Direct efficiency gains and increased return on investment. These effects refer either to a direct positive financial impact on the program or to an indirect positive program impact. A direct positive financial impact focuses purely on operational efficiencies, such as avoiding certain transaction fees from banks. An indirect positive impact, in contrast, may impart some efficiency gains, but the real return on investment comes from indirect effects on program outcomes. For example, if using DFS reduces the number of labor hours required to process disbursements, this may free up labor hours for use on programmatic activities.

As noted in Part 1, DFS can improve efficiency by lowering program costs for delivery of payments. Even if the IP uses DFS for this reason, it is quite common for subcontractors or subgrantees of IPs to rely heavily on cash. Figure 1 illustrates the flow of USAID funds in Bangladesh, along with the most common transfer method (cash or electronic) at different points.

DFS also can lower the cost for IPs to reach and offer services to project beneficiaries. For example, beneficiaries can be registered electronically rather than using paper forms, after which payments (conditional cash transfers, per diems, etc.) can be transferred electronically and accessed via the beneficiary's mobile phone or electronic card. This can lower costs by reducing field staff and cash management requirements.

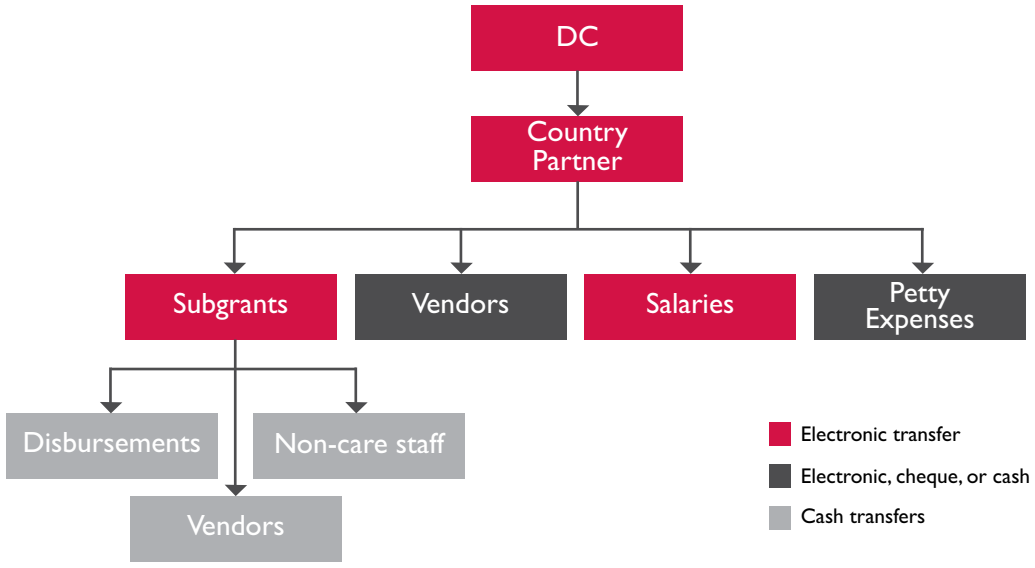
In Uganda, Plan International has transitioned from cash to mobile payments, which uses mobile money to reimburse workshop participants' transportation costs, estimates that this shift has reduced these costs by 77 percent. Most of Plan's cost reduction comes from lower costs for back-office functions related to transaction reconciliation. Table 1 and Figure 2 provide (1) a cost comparison for Plan's monthly payments via cash and mobile money and (2) a breakdown of costs by category.

In some cases, cost savings may not be immediately apparent due to significant costs associated with initial training and technical assistance. As a result, the distribution of funds via DFS may be more expensive at first. If these costs are amortized over the life of a project, however, DFS should cost less than cash payments.

CADG, an IP supporting labor-intensive community development programs in Afghanistan, experienced this when transitioning staff salary payments from cash to mobile money. Initial start-up costs were high, since the mobile money service provider (Roshan) charged CADG $40 per employee for a setup fee that included registration, training, and a new mobile handset and SIM card. Ongoing fees were over 70 percent lower, however, since Roshan charged $3 per employee for monthly transfer and withdrawal fees, while cash salary payments cost CADG over $10 per employee per month. In

FIGURE 1

Payment flows within typical USAID Bangladesh implementing partners



Source: *Bangladesh Portfolio Assessment and Action Plan, USAID (SBI for MSTAR)* (2013)

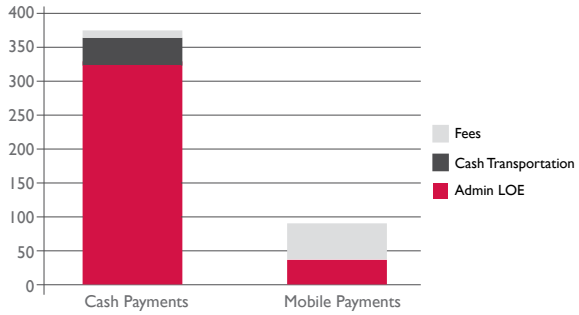
CASE STUDY

PER DIEM PAYMENTS IN TANZANIA

In late 2012, USAID funded an assessment of the potential to shift Tanzanian implementing partners from cash to mobile money payments. Two health programs with frequent training sessions used the USAID Cost Analysis Tool to estimate the costs of cash per diem payments to government health officials. Both identified a number of indirect costs that could be reduced by using mobile payments, including airfare, accommodations, and per diems for finance staff.

FIGURE 2

Cost Comparison for Plan Uganda (USD)



Source: *Uganda Mobile Money Assessment and Case Study, USAID (2012)*

addition, CADG estimates indirect cost savings of about $1,000 per month from reductions in the time spent by their Afghanistan financial staff for oversight of salary payments. CADG was able to recover its investment within six months. Furthermore, it can be estimated that transitioning all 341 CADG employees working on its community development program to mobile money saved CADG over $27,000 in Year 1 and would save them over $40,000 in Year 2 (see Table 2).

2. Enhanced ability to achieve key policy and program objectives. This effect refers to an inherent relationship between the use of DFS and achievement of a program's development objectives. As Part 1 explains, DFS are being used to achieve development objectives in sectors such as agriculture, education, health, governance, and energy.

An IP in Bangladesh also examined how DFS might help to achieve key USG policy objectives. In Bangladesh, USAID examined potential links between DFS and Feed the Future objectives:

- Improved Agricultural Productivity: Improved access to finance and lower transaction

TABLE 1

Detailed Cost Comparison for Plan Uganda

	Cost of Cash Payments, Inputs	Cost of Cash, Total per Month	Cost of Mobile Payments, Inputs	Cost of Mobile, Total per Month
Administrative LOE	2 Admin Salary LOE of 3 days per month	USD 288.00 UGX 731,000.00	2 Admin Salary LOE of 0.5 day per month	USD 48.00 UGX 122,000.00
Cash transportation	Driver Salary, LOE of 4 days per month	USD 80.00 UGX 230,000.00	N/A	USD 0.00 UGX 0.00
Fees	Cash Withdrawal Fee	USD 2.00 UGX 5,080.00	Mobile Money Fees* Transfer Fees — On-net at $0.32 (UGX 800) Off-net at $0.64 (UGX 1600) Withdrawal Fees — On-net at $0.28 (UGX 700) Off-net at $0.00 (UGX 0)	USD 36.00 UGX 91,000.00
Total		USD 370.00 UGX 966,000.00		USD 85.00 UGX 213,000.00

*On-net refers to registered MTN Mobile Money users, while off-net refers to those wo are not registered.

Source: *Uganda Mobile Money Assessment and Case Study, USAID (2012)*

costs lead to increased access to credit and investment, which can improve agricultural productivity.

- Expanded Markets and Trade: Improved access to finance and lower transaction costs facilitate access to markets and catalyze trade. The mobile phone also allows for improved information on market prices, weather, and so on.

- Increased Investment in Agriculture and Nutrition: Resources invested in agriculture and nutrition are delivered more efficiently and can be saved easily through DFS, which enables increased investment.

- Increased Employment Opportunities in Value Chains: DFS create direct opportunities for employment as agents and indirect opportunities by reducing barriers to entry throughout the value chain.

- Increased Resilience of Vulnerable Communities: DFS facilitate efficient and secure transfers (whether from governments, donors, family, or friends), which helps families to better manage shocks and maintain consumption (as noted in Part 1).

3. Other benefits: Finally, it is worth noting that in some cases, considerations other than cost may be the driving force behind a shift from cash or voucher payments to digital payments.

Key considerations include:

» Speed: In Haiti, the use of mobile money has significantly reduced the number of days required for distribution of funds as compared to cash or paper vouchers (see Figure 4).

» Security: A number of implementing partners emphasized that using mobile money for distributions could improve security, both for staff and for program beneficiaries. Mercy Corps' cash transfer program in Haiti saw a large drop in theft of cash transfers after switching to mobile money, and most of the beneficiaries of the cash transfer program felt that it was safer to receive funds via mobile money.

TABLE 2

CADG's Cost Savings from Switching to Mobile Money

Costs for 341 Employees	Cash Payments Year 1	Mobile Money Year 1	Cash Payments Year 2	Mobile Money Year 2
Start-up costs	N/A	$13,640	N/A	N/A
Direct ongoing costs of salary payments	$40,920	$12,276	$40,920	$12,276
Indirect cost savings	N/A	($12,000)	N/A	($12,000)
Total mobile money cost savings		$27,004		$40,644

What are some of the challenges implementing partners have faced, and how have they addressed these challenges?

Although transitioning to DFS can offer significant benefits to implementing partners, these transitions have faced certain challenges. Some key challenges implementing partners have highlighted include the following:

- Training: Intended recipients may have limited experience with mobile phones and mobile money services. To address this, both Pathfinder and D-Tree provided significant training support to their community health workers and traditional birth attendants.

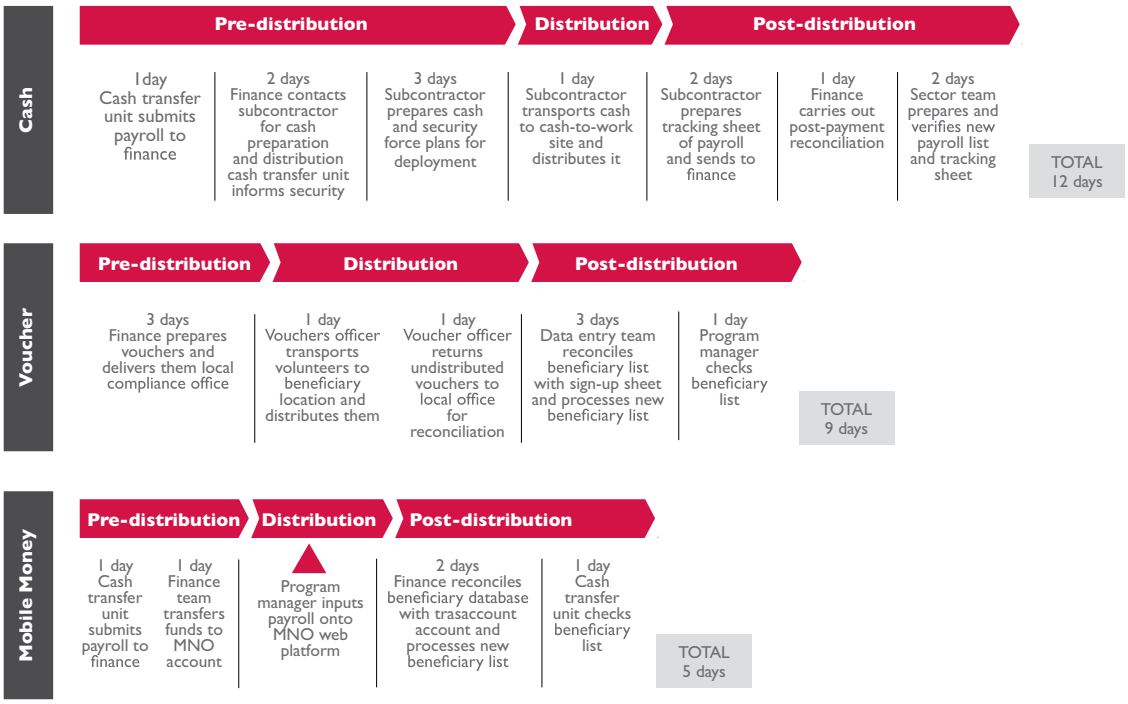
CASE STUDY

USING MOBILE MONEY TO IMPROVE MATERNITY CARE IN TANZANIA

D-Tree is a small health organization dedicated to improving maternity outcomes for poor women in Tanzania. D-Tree has piloted a service whereby traditional birth attendants (TBAs) receive payments via Zantel's Ezy-Pesa mobile money service. These payments are intended to cover transportation costs to ensure that poor women receive prenatal care and give birth in a formal clinic. To compensate TBAs for the loss of income from assisting with a home birth, TBAs receive a payment for each clinic birth that they facilitate. The results of the pilot have been encouraging: the percentage of the target population giving birth in a formal clinic rose from approximately 30 to 72 percent.

FIGURE 4

Comparisons of cash distribution times by modality in Haiti



Source: Plugging into Mobile Money Platforms, Dalberg (2012)

CASE STUDY

LAST-MILE HEALTH PAYMENTS IN TANZANIA

In late 2012, USAID funded an assessment that identified Tanzanian implementing partners that had already shifted from cash to electronic payments. Pathfinder, which helps build community health systems, has nearly eliminated cash payments, which it considers to be risky and costly. For last-mile payments to community health workers (CHWs), Pathfinder now uses Vodacom's M-Pesa service to effect the transfers. CHWs with M-Pesa accounts receive payments directly onto their mobile wallets, while those without M-Pesa accounts receive a notification that they can proceed to the nearest agent to withdraw their cash. Although they have faced certain challenges during the transition, Pathfinder is pleased that their cash handling risks have dropped dramatically. In addition, the ability to make payments via mobile channels has allowed Pathfinder to scale up their operations much more quickly than they could with cash payments.

- Network Connectivity: Network connectivity may be intermittent or unreliable in certain rural areas. DFS that rely upon real-time transfers may be impractical in areas with poor network coverage, since beneficiaries may be unable to complete transactions. In Zimbabwe, for example, a cash-for-work humanitarian aid project implemented by Save the Children faced network connectivity challenges when uploading monthly payments to recipient cards. The process, which should take less than two minutes per card, occasionally took 45 minutes in cases of weak network connectivity. One solution to such challenges is to use off-line systems that allow for batch uploading of transaction data when a network connection is available.

- Accounting and Reconciliation: Ultimately, electronic payments should lead to smoother reconciliations and better audit trails. Initially, however, IPs will need to adapt their accounting systems to integrate the use of electronic payments. Pathfinder hired an accountant to focus specifically on mobile money and developed new standard operating procedures to track and reconcile mobile money transactions. NetHope and USAID have developed a tool to help organizations develop standard operating procedures for payments via mobile phones or prepaid cards.

- Service Provider Support: Some implementing partners that faced challenges with DFS implementation found that service providers were not sufficiently responsive when problems arose. Implementing partners have seen improvements when the service providers appoint a dedicated account manager to address their concerns and ensure longer or more consistent hours for customer service.

- Liquidity Management: Implementing partners may face challenges with ensuring adequate liquidity for cash-out of benefits, particularly when delivering humanitarian aid via agent networks. When humanitarian aid is localized and agent networks are limited in size and strength, full cash-out may be difficult to ensure. A common solution is to inform the service provider when you will expect to disburse payments, to how many people, and for how much. This enables the service provider and the agents to plan ahead.

USAID and NetHope have developed a toolkit for adoption of electronic payments by implementing partners. This toolkit includes tips for addressing these (and other) challenges.

PART 6

IMPLEMENTING

How to Assess Opportunities and Design Solicitations

USAID
FROM THE AMERICAN PEOPLE

IMPLEMENTING

How to Assess Opportunities and Design Solicitations

THIS PART IS MOST RELEVANT FOR:
development objective teams.

THIS PART WILL ENABLE YOU TO:
(1) assess opportunities to use digital financial services in programming; and (2) design and issue solicitations for corresponding projects.

As you plan and design projects that reflect the breadth of the Agency's priorities, remember that a digital financial service (DFS) ecosystem is not just a means to the end of attaining financial inclusion. It is also a tool or channel for *other* means to achieve *other* ends—for example, a tool to disburse unconditional cash transfers to achieve better educational outcomes or a tool to cover emergency costs incurred by traditional birth attendants. The question is most often not whether the ecosystem is relevant to USAID's development objectives, but how.

What follows are a series of questions and illustrative areas to guide you as you consider how to engage with DFS. They should inform—not dictate—your approach.

How can USAID approach digital financial services in programming?

By assessing the landscape of DFS ecosystems, you will understand where USAID engagement could add the most value, given the three broad types of engagement.

1. Strengthen the ecosystem directly. Here, the primary purpose is to accelerate the development, improve the commercial viability, and enhance the utility/sophistication of the DFS ecosystem.

2. Use the ecosystem to help you achieve outcomes in sector-oriented programs. Here, the primary purpose is to use DFS to make progress toward other development outcomes (such as health, governance, education, energy, and agriculture). By using DFS, you will help to strengthen the ecosystem indirectly.

3. Strengthen and use the ecosystem. Here, the ecosystem may be sufficiently developed to use in programs, but perhaps training poor customers or strengthening consumer protection regulations could help to accelerate the development and use of a safe DFS ecosystem.

How do I determine which approach USAID should take with respect to digital financial services?

Perform an assessment, diagnostic, or landscape study. Ecosystems are evolving too quickly for any judgment to stay valid for long. In addition, an assessment can reveal crucial information on the extent to which the geographic locations of your anticipated focus areas overlap with high levels of mobile (or other digital) access and the potential availability of DFS.

USEFUL RESOURCES: These are useful at both strategic and project levels.

- Mobile Access Diagnostic: USAID's Digital Inclusion team is currently developing a diagnostic that examines how people access and use technology broadly. The diagnostic will be completed by the end of 2014.

- Branchless Banking Diagnostic Checklist by USAID: This checklist enables you to obtain a "snapshot" of the demand and supply for branchless banking services (not necessarily mobile-based), and it helps shed light on whether and how an intervention might promote sustainability and scalability. It complements two model scopes of work:
  - Short-Term Technical Assistance: for evaluating the financial sector and conducting a branchless banking feasibility study.
  - Long-Term Technical Assistance: for a pilot branchless banking program.

- Mobile Money Diagnostic Checklist by USAID: This checklist is quite similar to the branchless banking diagnostic, but focused more narrowly on mobile money. The diagnostic also has two model scopes of work that correspond to it. Use with these model scopes of work:
  - Short-Term Technical Assistance: for assessing the ecosystem for DFS and recommending ways to strengthen it.
  - Long-Term Technical Assistance: for strengthening the ecosystem for DFS.

- Branchless Banking Diagnostic Template by CGAP: This diagnostic template is much more detailed than USAID's branchless banking diagnostic checklist. It focuses primarily on issues related to regulation of branchless banking services.

See Annex 6.1 for a detailed description of these and other relevant resources.

Broadly speaking, your assessment should be more rigorous and wide-ranging, if you:

- are in the midst of strategic planning (for example, formulating your country development cooperation strategy (CDCS) or project appraisal documents (PAD))
- anticipate using mobile phones across an array of programs
- anticipate using DFS across an array of projects
- have projects focusing on economic growth, governance, gender, innovation, science and technology
- are unfamiliar with the stage of maturity of the DFS ecosystem

Build on assessments or reports released by others. Many of the organizations discussed in this handbook frequently release case studies and assessments of financial inclusion and digital financial services. Their work may allow you to narrow the scope of your assessment if their reports are recent, relevant, and reliable.

Any broad assessment that you complete prior to project design (such as during the CDCS development process) can help you define your development objectives. Subsequent assessments and surveys can focus on particular sectors, development constraints, geographic areas, or groups of anticipated beneficiaries.

KEY FACTORS TO CONSIDER WHEN CONDUCTING A MARKET DIAGNOSTIC

- REGULATORY FRAMEWORK: A regulatory framework that enables innovation while mitigating risk (see Part 3) creates an enabling environment for digital financial services.
- BANK ACCOUNT USAGE AND BANKING INFRASTRUCTURE (OR LACK THEREOF): DFS are most likely to appeal to customers who are unbanked, underbanked, or far from banking infrastructure. On the other hand, most DFS still require some banking infrastructure access, because agents need to ensure sufficient liquidity to meet customer demands for cash.
- DEMAND FOR DOMESTIC MONEY TRANSFER SERVICES: Digital financial services are likely to develop more quickly where high latent demand exists for low-cost, convenient domestic money transfer services. Common reasons for high demand include:
  - Significant employment-related migration from rural to urban areas
  - Expensive or inconvenient domestic money transfer services
  - Frequent payments to unbanked citizens (such as salary or supply-chain payments).
- LITERACY: Mobile money services often require users to read USSD menus and/or SMS messages, which can be challenging for people with low literacy. Along with support from family members, training helps the use of number strings for numerate customers, or voice-based services using interactive voice response (IVR).
- FINANCIAL LITERACY: Low-income customers who lack experience with formal financial institutions may need training on how formal financial services work. In addition, many new customers have trouble remembering and protecting PINs and passwords.
- POPULATION DENSITY: Although the use of agents and mobile phones can lower fixed and ongoing costs, a minimum level of density is necessary to break even.
- MOBILE NETWORK COVERAGE: Reliable network coverage is critical to earning trust and instilling confidence in any payment service that relies on mobile networks.
- MOBILE PHONE USAGE: If potential customers already use mobile phones, they may be more comfortable adopting new mobile-enabled services like financial services.
- MOBILE PHONE HANDSET OWNERSHIP: In some countries, multiple people share one handset, either swapping out SIMs or sharing a SIM as well. Handset ownership rates may affect customer uptake for mobile phone-based DFS.
- MNO MARKET DYNAMICS: A dominant market position can help to facilitate rapid nationwide rollout of mobile money services. On the other hand, market dominance in voice and SMS services can translate into high transaction fees for mobile money and stifled competition, particularly if the dominant party charges higher fees for customers of other MNOs and prohibits its agents from offering services to other MNOs. Also, dominant MNOs can use their market power to limit competition from banks by restricting banks' access to critical network services such as bulk SMS and USSD.
- FINANCIAL SECTOR MARKET DYNAMICS: In countries where only a bank-based model is permitted and where banks face limited competitive pressure, banks may lack strong incentives to develop innovative products.

How can I program activities to strengthen the DFS ecosystem?

If your assessments suggest that you can play a role in strengthening the ecosystem for DFS, you might expect to pursue, for example: (1) technical assistance on core regulatory issues, (2) stakeholder coordination, (3) research into the landscape of access to financial services, (4) surveys exploring how people perceive, access, or use mobile technology, or (5) small-scale pilots to test certain use cases relevant either to Agency priorities or to developing the business case for providers to invest in the ecosystem. Refer to the following to inform your approach:

- Part 3, which discusses regulatory issues and the four pillars of a healthy ecosystem.
- Part 4, which discusses donors' comparative strengths and weaknesses when contributing to DFS ecosystem growth.
- 10 Ways to Accelerate Mobile Money, which lists areas that require coordinated action to accelerate ecosystem growth (see Annex 4.2).

Example projects that strengthen the DFS ecosystem include the following:

In Malawi, USAID saw an opportunity to increase financial inclusion by strengthening the DFS ecosystem.

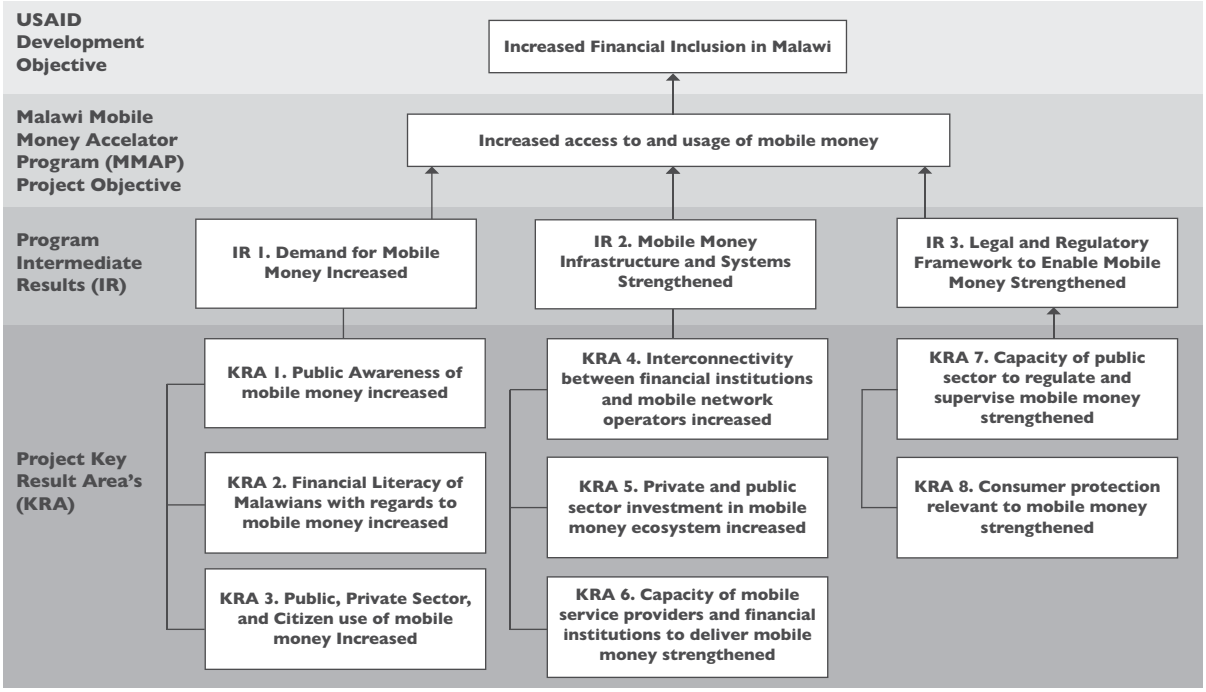
Mobile Money Accelerator Program (MMAP): Malawi	MMAP aims to increase the adoption and use of mobile money through a mix of targeted technical assistance to key stakeholders and pilots designed to inform stakeholders of how to regulate, promote, use, and market mobile money. A significant component is coordinating stakeholders (particularly donors, government counterparts, banks, and MNOs) through the Mobile Money Coordinating Group. Because the Government of Malawi is also a member of the Better Than Cash Alliance (BTCA), MMAP is working to ensure that public commitment to the BTCA translates into a concrete follow-on engagement.

The LogFrame (that is, the project's development hypothesis) for MMAP shows how the project's objective (increased access to and usage of mobile money) links to the Agency's development objective of increased financial inclusion. In other words, the various components of MMAP collectively enable mobile money to serve as a means to the end of increased financial inclusion.

The Better Than Cash Alliance (BTCA) adopted a narrower development hypothesis than MMAP in Malawi. By decreasing reliance on cash for large payment streams (particularly from governments, donors, and large companies), the BTCA aims to encourage a shift to "cash-lite" economies, where the range of benefits that DFS enable (transparency, efficiency, security, etc.) ultimately yield strengthened institutions and increased financial inclusion.

FIGURE 1

Malawi Mobile Money Accelerator Program (MMAP) Logical Framework



Source: *Integrating Mobile Solutions into Development Projects: A Handbook for USAID Staff, FHI360 and Open Revolution (draft as of Jan 2013)*

As you develop a LogFrame that charts the various components of an ecosystem-strengthening project, remember that other stakeholders may be pursuing complementary efforts. Any initial assessment that you performed should inform you of which components can be done in concert with other stakeholders or can be left to them entirely.

ILLUSTRATIVE INDICATORS FOR ECOSYSTEM-STRENGTHENING.

Generally, DFS indicators measure, directly or indirectly, (1) access to services; (2) acceptance of services; or (3) utility of services.

- Access: refers to whether the target audience can access the service. Consider gender gaps, the average distance to an agent, the number of agents, the density of agents, or the cost per round-trip transaction (deposit, transfer, and withdrawal).

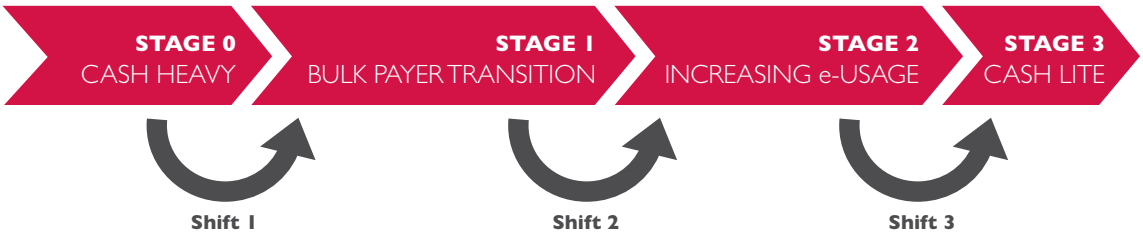
- Acceptance: refers to many factors that affect consumer awareness, understanding, or initial adoption of the service. Consider the number of registered users or the number of users per agent.

- Utility: refers primarily to the value derived from the service relative to its price. The service might offer a variety of features (like simple person-to-person transfers or receipt of social transfers). Consider the number of transactions per month per feature or the number of active (versus registered) users.

See Annex 6.2 for example indicators for each category and who commonly tracks them. You will

FIGURE 2

Stages and shifts away from cash to electronic payment methods



	STAGE 0 CASH HEAVY	STAGE 1 BULK PAYER TRANSITION	STAGE 2 INCREASING e-USAGE	STAGE 3 CASH LITE
Flow of Electronic Payments		Few to Many	Many to Few	Many to Many
Main Payment Instruments in Use	Mainly paper (typically cash, maybe some checks)	Mixture: paper and electronic (cards used at ATMs, some on-line banking)	Mainly electronic (mobile used for bill payments and remittances)	Almost all electronic (use of mobile and/or card at point of sale through interconnected switches)
What is Needed to Shift to This Level?		Sufficient cash-out points; B2P & G2P shifts	Ability of business and consumers to make cheap electronic payments via computer, standing order, ATM (P@P, P2B)	Pervasive acceptance of electronic payments at POS and mobile phone, compelling financial products
Examples	Haiti, Niger	Colombia	Kenya	U.S., Canada, Northern Europe

Source: *THE JOURNEY TOWARD 'CASH LITE:' Addressing Poverty, Saving Money and Increasing Transparency by Accelerating the Shift to Electronic Payments*, Better Than Cash Alliance (BFA)

see that many of the indicators in the Annex are tracked at a national level. They tend to meet the basic requirements of any good indicator (objective, reliable, precise, timely), but you may not be able to negotiate with the data source for access to sub-national data or data disaggregated by gender. For example, you may need to conduct a regional evaluation to evaluate a localized effort at increasing the number of DFS agents. In other cases, such as when a key activity is helping to create a meaningful stakeholder working group to tackle regulatory issues, national-level indicators may be appropriate as outcome indicators.

Six steps can help you to incorporate DFS into project designs. The steps dovetail well with the Agency's Project Design Guidance and the three-stage process for designing projects once you have identified your goal and top-level development objectives: (1) conceptual stage, which results in a concept paper; (2) analytical stage, which results in a Project Appraisal Document; and (3) approval stage, which results in a Project Authorization.

These steps can be applied at any point in the program cycle. They are adapted from a handbook for integrating mobile technology into development programming prepared for the Regional Development Mission for Asia.

1. What do you want to achieve?
2. What basic capabilities do DFS need to offer for them to play a role in achieving your objective?
3. How ready for the use of DFS is the geographic area or community with which you anticipate engaging?
4. How do you anticipate that DFS will play a role in achieving your objective?
5. Are your assumptions and preliminary findings validated by others and by recent assessments?
6. Synthesize the feedback, ideas, and insights that you have obtained into your project's concept paper or project appraisal document.

STEP 1: What do you want to achieve? Define the problem, constraint, or challenge that you hope to overcome. After you define your problem, articulate a theory of change or development hypothesis for addressing it, which will enable you to identify potential ways that DFS can contribute.

USEFUL RESOURCES

- ProjectStarter by USAID: Plan, design, monitor, and evaluate USAID projects with this highly useful interactive toolkit (includes templates, checklists, guides, and links to corresponding policies). Use the Logical Framework tools.
- Part 1 of this Handbook: Understand how DFS can be used across many sectors.
- Part 5 of this Handbook: Understand the ways that DFS tend to affect USAID projects.

If you clearly articulate your theory of change (particularly in the form of a LogFrame), you will more easily identify the relevance and relationship of DFS to your objective. Refer to Part 1, which describes ways in which DFS can contribute to development outcomes in many sectors.

Even in situations where DFS and cash seem interchangeable—for example, the effect of conditional cash transfers on educational outcomes—the change in approach may have unintended or unanticipated consequences. Doing a small scale project may serve as a proof-of-concept, demonstration, or basis for comparison with status quo methods.

STEP 2: What basic capabilities do DFS need to offer for them to play a role in achieving your objective? Determine your basic requirements for using DFS, such as minimum levels of mobile network coverage, capability of DFS service providers, and accessibility of agents or banks.

USEFUL RESOURCES

- Part 1 of this Handbook: Understand the basic functional use cases of DFS.
- Checklist for Mobile Solutions in Development: Document what capabilities you anticipate any mobile-enabled aspect of your project to require.

Annex 6.3 includes a table that can help you to understand the basic functional capabilities that you might require of any mobile-based use of DFS. Refer to Part 1, which explains the basic use cases of DFS like mobile money, such as person-to-person transfers or bill payments.

STEP 3: How ready for the use of DFS is the geographic area or community with which you anticipate engaging? Update assessments already completed at the strategic level, perhaps with a more targeted approach if you expect to focus on one

geographic or demographic area. You could survey anticipated beneficiaries about their level of mobile access, technical and financial literacy, needs and preferences for financial services, and awareness of DFS.

USEFUL RESOURCES

- Mobile Money and Branchless Banking Diagnostic Checklists: As with the Mobile Access Diagnostic, refer to or update the results of these if you have already completed them.
- Survey Methodology for Understanding Needs and Preferences of Beneficiaries: This survey examined how cocoa farmers in Indonesia interact with financial services.
- Survey Methodology for Understanding Payment Streams of Current Implementing Partners
- Payment Mapping Tool for Implementing Partners: Identify where DFS may already be in use.

Survey implementing partners about their payment streams to evaluate the relevance of DFS. By looking at what implementing partners already do, the survey can clarify where and how DFS are or might be employed. In Nepal, Colombia, and Liberia, Missions have surveyed implementing partners (using a simple, free, web-based tool), and the results have led to discussions at annual implementing partner meetings. Figures 3 and 4 provide examples of what USAID/Colombia learned through its survey.

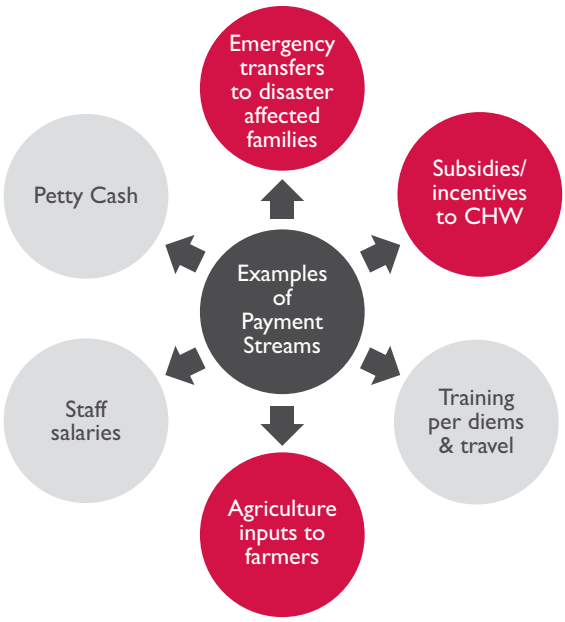
Implementing partners can use the tools included in USAID's toolkit for adopting electronic payments to map out and understand payment flows and associated costs.

STEP 4: How do you anticipate that DFS will play a role in achieving your objective? Examine your theory of change and identify specific points where DFS might be relevant and useful. Account for certain types of short-term and long-term costs that differ between DFS and alternative methods. Refer to Part 5, which presents a method for understanding the relevance and relationship of DFS to any development objective (particularly those related to presidential initiatives like Feed the Future or Global Health Initiative). Also Refer to Part 1, which describes ways to use DFS in many sectors.

FIGURE 3

Examples of USAID/Colombia Implementing Partners' Payment Streams

NOTE: Program payments in red, operational payments in gray, CHW = community health workers)



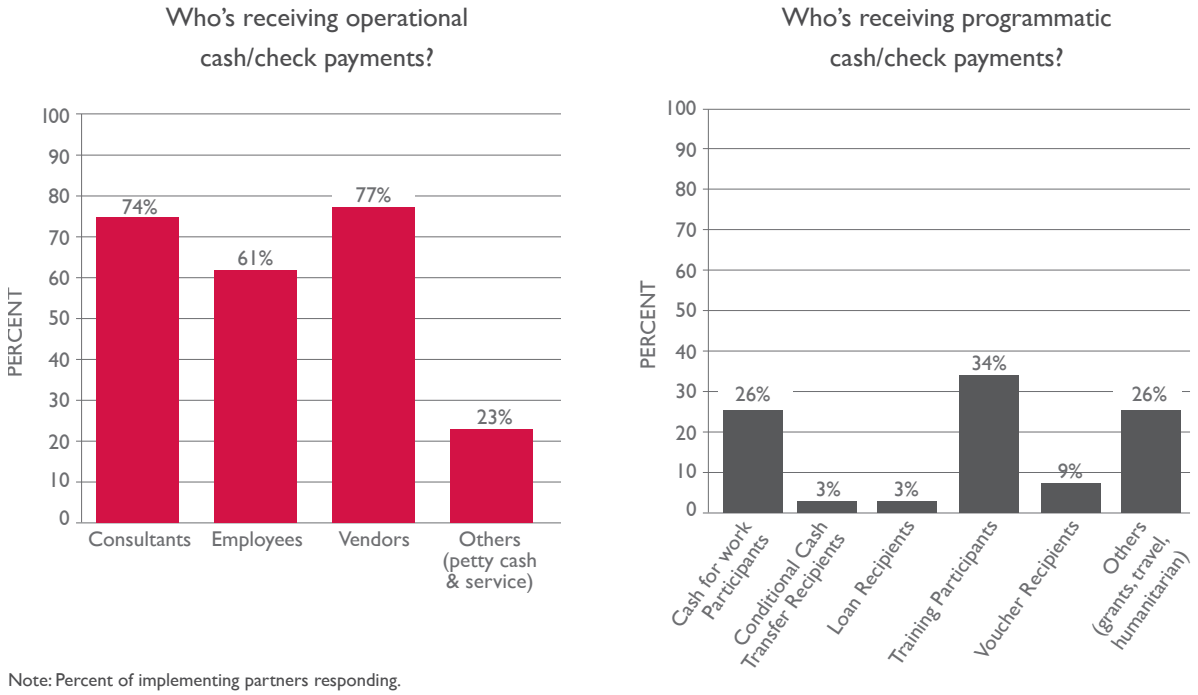
Source: NetHope

USEFUL RESOURCES

- Part 1 of this Handbook: Understand how DFS can be used across many sectors.
- Part 5 of this Handbook: Understand the ways that DFS tend to affect a project.

FIGURE 4

Breakdown of Operational and Programmatic Payments for USAID/Colombia Implementing Partners



Note: Percent of implementing partners responding.
Source: NetHope

As you explore how DFS can be used, start with the development constraint that you have identified. Based on what you understand about the ecosystem's maturity and your sector expertise, ask if DFS might be relevant for overcoming that constraint. If so, ask yourself what the relationship is between DFS and the outcome that you hope to achieve.

Define the *relevance* of digital financial services for your development outcomes. Ask a simple scoping question: What aspect of your project might involve the transfer of value, storage of value, or both? Perhaps you anticipate actions like the following:

- Transfer of Value:
  - » disbursement of per diems for participants in a financial literacy workshop
  - » collection of loan repayments by a microfinance institution
  - » purchase of inputs by a participant in an agriculture value chain
  - » receipt of crop insurance payouts during a drought
- Storage of Value for:
  - » child and maternal care expenses
  - » access to credit
  - » investing in agricultural inputs

KEY TASKS FOR A SCOPING SURVEY

1. Map all cash payment streams in operations and programs.
2. Create a process flow chart of each payment stream.
3. Take note of values, volumes, frequency, type, and numbers of payments in each stream.
4. Identify points of cash management and who controls them.
5. Identify any pain points in the process (such as excessive overtime by staff during disbursements).
6. Identify points where barriers may exist to a shift away from cash to DFS.

Notice that these examples could occur without the use of DFS. For the transfers, you could rely on cash or paper vouchers; for the storage of value, you could rely on a locked box rotated among members of a community bank. But as Part 5 explains, even even if transferring value is a very minor component to your project, like disbursing per diems, a strong rationale may exist for you to use DFS to at least tap into more immediate benefits like operational gains in safety, efficiency, or transparency.

If your status quo approaches do not involve a transfer or store of value, *DFS may still be relevant.* Think about the unique functional characteristics of DFS and ask if they would help you overcome distributional, informational, or behavioral barriers that have, until now, dictated a certain approach in your programming (see sidebar on consumer-asset financing).

Define the relationship between digital financial services and your development outcomes.

Depending on your context, a phased-in approach to incorporating DFS into your project may be most appropriate. You would expect to have certain short-term and long-term costs unique to adopting DFS for the first time, including:

- Upfront costs, which may include the costs of negotiating agreements with DFS service providers, obtaining mobile handsets, creating new standard operating procedures, developing training materials, and training staff and beneficiaries
- Costs associated with maintaining parallel cash- or paper-based payment and collection systems until an implementing partner moves to universal adoption of DFS

MAKING NEW SERVICES VIABLE USING DFS AND CONSUMER ASSET FINANCING. A common barrier to scaled use of solar lanterns or solar-generated electricity is the difficulty in maintaining a high likelihood of repayment from consumers after providing the financing that most consumers need to afford the cost of purchase. But with DFS, you can *both* enable consumer-asset financing *and* motivate repayment, because the manufacturer can automatically switch off the solar lantern remotely if payments stop and switch on the lantern when payments begin again. DFS might not come to mind immediately as a tool for access to energy or water, but this new model elegantly demonstrates the complementary relationship between DFS, mobile phones, and development objectives.

- Costs associated with ongoing use of DFS, which may include voice and SMS and data fees, DFS transaction fees, and ongoing training of staff and beneficiaries

STEP 5: Are your assumptions and preliminary findings validated by others and by recent assessments? Use the assessments, diagnostics, surveys, and checklists that you have completed to frame the feedback you solicit from stakeholders (pillar and regional bureaus in USAID, donors, implementing partners, beneficiaries, etc.) and to determine if your assumptions are realistic.

STEP 6: Synthesize the feedback, ideas, and insights that you have obtained into your project's concept paper or project appraisal document.

Issuing a Solicitation for a Project that uses Digital Financial Services

In most ways, a solicitation that anticipates the use of DFS is no different from others that anticipate the transfer or storage of funds, whether for beneficiaries or simply for project staff.

USEFUL RESOURCES

- Checklist for Mobile Solutions in Development: Document what capabilities you anticipate any mobile-enabled aspect of your project to need.
- Illustrative Technical Evaluation Criteria for a Project With a Mobile Component

IN THE *BACKGROUND* SECTION OF THE SOLICITATION

The bulk of this section will focus on your sector-oriented objective, but to the extent that DFS relate closely to the outcomes that you are pursuing, you could also incorporate any DFS-specific insights and knowledge gained through assessments or surveys already performed (for example, on how farmers use and access financial services).

NOTE: The content in this section applies to both acquisition and assistance, notwithstanding the terms used to describe certain parts of solicitation materials.

IN THE *PROGRAM DESCRIPTION / STATEMENT OF WORK / PERFORMANCE WORK STATEMENT* SECTION OF THE SOLICITATION

Here, you could articulate both how DFS are relevant to your project's objectives and what you believe the relationship is between the services and your objectives. This will enable both you and the organizations responding to the solicitation to propose appropriate indicators for focusing effort, measuring progress, and evaluating performance and impact.

Similarly, you should articulate as much as you know about where and with whom you anticipate engaging—for example, the size, income, educational, occupational, and geographic characteristics of the community; the degree of network coverage; the rate of mobile access (particularly by gender); the mobile money services on the market; and the presence of mobile money agents. This will enable organizations to propose an informed plan for how they would use DFS, train beneficiaries as necessary, and plan for sustainability.

IN THE *PROPOSED TASKS / ILLUSTRATIVE ACTIVITIES* SECTION OF THE SOLICITATION

Here, the tasks or activities that you propose with respect to DFS would depend on your project focus. If you employ a performance-based approach or are unsure as to which DFS-related activities would be most useful, you might choose to include here only what you think is most important to do in a particular way. Providing flexibility may help to elicit creative, innovative ideas for achieving your objectives.

You might, however, want organizations to:

- Propose how they could incorporate DFS into their project design, whether to improve project outcomes, obtain operational benefits like safety and efficiency, or both.
- Include a comparison of what they could achieve using DFS versus using cash or paper-based alternatives.
- Propose a method for market research (building on prior assessments and surveys) to identify user needs, preferences, and characteristics, with a particular focus on gender.
- Propose and explain technical and service requirements for the type of DFS to be used.
- Propose a plan for procuring and using the DFS.
- Explain how the security and privacy of beneficiary data will be protected.
- Propose a DFS training plan for staff, counterparts, and beneficiaries.
- Explain how DFS would address anticipated beneficiary challenges such as no mobile phone, lack of official identification documentation, weak network connectivity, or technical/financial illiteracy. Propose a plan for sustaining the use of DFS by beneficiaries beyond the end of the project, with particular attention paid to costs that the organization might propose to subsidize during the project (such as the cost of mobile handsets, cash-out fees, SMS fees, or call fees).

IN THE *DELIVERABLES / KEY MILESTONES / PERIOD OF PERFORMANCE* SECTION OF THE SOLICITATION

The following illustrative deliverables are more unique to DFS and many are often produced in the normal course of implementation. Including these as deliverables, regardless of your sector, will enable USAID to document what works well so that subsequent projects benefit from your insights.

- Survey of Needs, Preferences, and Characteristics of End-Users: By sharing both the results and the methodology of the survey, staff of both USAID and implementing partners can use and refine it in subsequent projects that incorporate DFS.
- Cost Comparison and Technical/Service Requirements Grid: Although costs and services vary from country to country, it can be helpful to understand typical cost breakdowns and technical requirements in other projects. For example, you could ask organizations compare cost, speed, and other primary features of DFS with traditional methods (such as cash or paper vouchers).
- Training Plans for Staff, Counterparts, and End Users: These plans could form the basis for streamlining and easing the integration of new technologies like DFS into programs.
- End-User Privacy Plan: This plan could provide a useful starting point for similar USAID projects and increase end users' confidence and trust in USAID and DFS.
- Troubleshooting/Problem Mitigation Plan: All projects inevitably will encounter challenges during rollout. USAID projects can refine approaches and develop solutions more easily

if they are aware of how other projects have effectively handled similar challenges.

- List of Challenges and Benefits Arising From the Use of Digital Financial Services: This sort of pro/con exercise, if done candidly and with a problem-solving mentality, can be enormously helpful for subsequent projects across the Agency.

- Suggested Evaluation Questions: Within the project's larger monitoring and evaluation plan, it may be helpful to understand ways to isolate the effects of DFS on project objectives. As more projects develop and conduct corresponding evaluations, USAID will be able to improve its understanding of how and where DFS relate to theories of change, which will inform how DFS are used in subsequent projects.

IN THE *PAST PERFORMANCE* SECTION OF THE SOLICITATION

In most countries, using DFS is not yet a plug-and-play proposition. Many organizations lack the requisite technical, financial, or managerial capacity to use them effectively. Consequently, you should request that organizations explain if they have:

- Previously used DFS (whether in programming or operations), particularly for the anticipated target geography or end-user segment

- Negotiated and worked with service providers (MNOs, agent networks, trainers, banks, etc.)

- Trained staff and end-users on technical and financial literacy

- Designed, managed, and scaled a project for DFS

IN *SECTION C* AND *SECTION L* OF THE SOLICITATION

USAID is including language in solicitations that encourages implementing partners to incorporate DFS into their operations and programming where feasible. The Agency first began encouraging such incorporation when it issued Procurement Executive Bulletin No. 2012-05. In 2013, on the first anniversary of the Better Than Cash Alliance, USAID committed to use its financial footprint to increase the use of DFS in developing countries. USAID expects to issue guidance for contract and assistance officers for following through on that commitment. Until then, the following text is illustrative of how to foster the use of DFS in solicitations.

Illustrative Technical Evaluation Criteria for Digital Financial Services

Your evaluation criteria will flow naturally from the other parts of your solicitation, but for DFS, a key element is demonstrated capability to use DFS in programming. Organizations should at least demonstrate awareness of the ecosystem's stage of maturity and the capabilities of service providers that offer digital financial services.

USEFUL RESOURCES

- Illustrative Technical Evaluation Criteria for a Project with a Mobile Component

Likewise, organizations should either demonstrate (1) awareness of levels of mobile access and availability of DFS where the activities are expected to take place; or (2) a feasible plan for obtaining that information. During your review, consider whether the organization devotes adequate resources to training both staff and beneficiaries; whether it has an adequate understanding of DFS service provider options and a plan for engaging with them; and

Section C (Description/Specifications/Statement of Objectives)

USAID, through its commitment to the Better Than Cash Alliance, encourages the use of inclusive electronic payment and collection methods (including mobile money) to extend affordable and accessible payments to low-income populations, create cost-savings, promote economic development, increase transparency, strengthen security, and broaden financial inclusion. The implementing partner and its sub-awardees must utilize these services to the greatest extent feasible. Program operations, including personnel salary payments, must also be paid through electronic and/or mobile channels when viable.

Section L (Instructions for the Preparation of the Technical Proposal)

Program Design Sub-Factor

USAID encourages overall creative and innovative approaches that harness technology (like digital financial services) to improve progress toward achieving program objectives.

whether it has adequately aligned the use of DFS with the project's objectives.

The annex includes an example technical evaluation criteria table that you can adapt. The table addresses (1) the expertise of the organization; (2) its methodology, approach, and understanding of the use of DFS; and (3) its personnel.

PERFORMANCE MONITORING PLAN (PMP)

Performance management represents the Agency's commitment to managing for results to achieve the best possible development outcomes. Your PMP is a roadmap for monitoring and evaluating program performance. It provides detailed information and a timeline to explain when and how performance data will be collected and analyzed, and it includes baseline values and targets for performance indicators linked to the achievement of each development objective included in a CDCS.

See Annex 6.5 for an illustrative Performance Indicator Reference Sheet that identifies a metric and its baseline, target, and quality for a mobile money project in Malawi. For an example of an excerpt from a PMP for a mobile money project in the Philippines, see Annex 6.5.

ANNEX

Part 3: Regulatory Issues

Part 4: Strengthening Ecosystems

Part 6: Implementing

PART 3

ANNEX 3.1

The Financial Action Task Force's risk-based approach for ensuring the integrity of financial systems

Since 1989, the Financial Action Task Force (FATF) has been the standard-setting body for what participants in the international financial system must do to preserve its integrity from particular risks—to prevent it from misuse for:

- money laundering;
- terrorist financing (explicit focus added in 2001); and
- financing of the proliferation of weapons of mass destruction (explicit focus added in 2008).

FATF fulfills its mission by setting standards and issuing guidance; monitoring member-country compliance with the standards through a mutual evaluation process and assessments by the World Bank and IMF; promoting adoption of the standards; and identifying effective counter-measures to identified misuse. Over 180 countries apply the standards and participate in FATF through FATF-Style Regional Bodies.

- FATF Standards encompass (1) Recommendations, (2) Interpretative Notes, (3) Guidance, and (4) Best Practice Papers, among a few other materials.
- Only the Recommendations and Interpretative Notes are treated as mandatory for FATF members.
- The FATF Standards orbit three spheres: (1) legal, (2) regulatory, and (3) operational aspects of preserving the integrity of financial systems.

The recommendations mandate how the countries prevent and address risks in addition to mandating how designated parties—such as banks, casinos, money transferors, and microfinance institutions—comply with the laws and regulations that the FATF Standards favor. Similarly, FATF obligations affect how the central bank oversees the financial system, how suspicious transactions are handled and reported, and both how and by whom law enforcement actions are pursued.

Revisions issued in 2012 incorporated a stronger emphasis on financial inclusion in Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) regimes. In 2012, FATF issued a range of changes to the standards to reflect, in part, the growing consensus that the risks of financial exclusion (excluding people from participating in the formal financial system)—risks like the inability to monitor transaction flows, social and political instability, and potential financial instability from the collapse of unregulated schemes—outweigh the risks of expanding financial inclusion, such as risks related to non-transparency of services and over-indebtedness. Greater use of unseen, unregulated channels is fundamentally more risky than use of a formal financial system with adequate controls, supervision, and enforcement.

Leading up to the revisions, countries throughout the developing world had adopted approaches that many considered too restrictive in relation to real or apparent risks. The FATF Standards themselves did not seem to allow much latitude for a lighter-touch approach even if integrity of the system wouldn't be affected. The effect could be seen in many countries, as AFI explored in Peru, where the poor (who often

lack any sort of ID and perform small transactions) and the affluent (who perform larger and more frequent transactions) had to undergo the same customer due diligence (CDD) (also referred to as Know Your Customer or KYC) process of providing documentation and having it verified.

Not only did this approach not account for the different levels of risk involved, it also hindered the ability of any financial service provider (banks, cooperatives, MNOs, etc.) to extend services into poor, rural, and otherwise isolated communities. Similarly, the incredible opportunity to deepen financial inclusion by using mobile phones and agents (instead of bank branches) as a means of opening accounts and performing transactions was hindered by CDD requirements that didn't allow for effective technology-based alternatives.

The primary way in which the 2012 revisions incorporated greater focus on financial inclusion was by endorsing a risk-based approach (RBA) as an underlying principle for all AML/CFT measures. Fundamentally, an RBA adjusts according to the risk inherent in a service or institution within limits: with respect to CDD, FATF provided two types of guidance: (1) you MUST apply enhanced measures to higher risks; and (2) you MAY apply simplified measures to lower risks. For example, you might not be required to present an ID for a retail purchase below $25, but you must present an ID and other documentation for a transfer of $10,000.

Key FATF Materials for Digital Financial Services and Financial Inclusion

- FATF Recommendations, 2012. The 2012 revisions synthesized past standards into a set of 40 Recommendations. Those most relevant to digital financial services and financial inclusion efforts that depend on branchless banking include:
  - No. 1: Assessing risks and applying a risk-based approach
  - No. 10: Customer due diligence *(key to financial inclusion issue)*
  - No. 11: Record keeping
  - No. 13: Correspondent banking
  - No. 14: Money or value transfer services
  - No. 15: New technologies
  - No. 17: Reliance on third parties
- Revised Guidance on AML/CFT and Financial Inclusion, 2013. This document explains how financial inclusion efforts can contribute to AML/CFT efforts in practice. It also defines and explains the "risk-based approach," and describes the links between financial inclusion and particular requirements embedded in the Recommendations.
- Guidance for a Risk-Based Approach to Prepaid Cards, Mobile Payments and Internet-Based Payment Services, 2013. This document explains how the risk-based approach can be applied to digital financial services and the use of agents.

In the guidance issued by FATF on financial inclusion, it says that an RBA "means that both countries and financial institutions are expected to understand, identify and assess their risks, take appropriate actions to mitigate them and allocate their resources efficiently by focusing on higher risk areas." That risk assessment process will reveal areas in which simplified measures might be appropriate.

- In 2010, USAID published a report that explored, in detail, the risks and mitigation options posed by digital financial services: "Mobile Financial Services Risk Matrix."
- In 2010, prior to the FATF revisions, GSMA proposed a methodology for how countries might perform a risk assessment of mobile financial services: "Mobile Money: Methodology for Assessing Money Laundering and Terrorist Financing Risks." This methodology can be read together with a 2013 position paper by GSMA called "Enabling regulatory solutions for mobile money."

ANNEX 3.2

Mexico's risk-based approach using tiered levels of customer due diligence

As Part 3 and Annex 3.1 explain, a risk-based approach to AML/CFT can help ensure the integrity of the financial system while also fostering financial inclusion. In Mexico, the level of CDD performed affects the type of account that may be opened. As the consumer produces more documentation to identify and verify their identity, they can access different types of services through the account and receive higher transaction and account balance limits.

	Level 1	Level 2	Level 3	Level 4 Traditional Bank Account
Max Amount in monthly transactions USD/Month	280 + Max Balance of 370 USD	1,1110[1]	3,700	No limit imposed by regulation
Customer information required to open account	None	Basic: Name, date and place of birth, gender and address	Complete customer information	Complete customer information
Hard copy required?	Not Applicable	No	Mobile Money Fees*	Yes
Face to face account opening required?	No	No[2]	Yes	Yes
Means to access funds	Only debit card (for national use). No mobile	Any electronic means (mobile, card, bank transfers)	Any electronic means (mobile, card, bank transfers)	Any electronic means (mobile, card, bank transfers), and cheques

Source: *Mexico's Tiered KYC: An Update on Market Response*, Xavier Faz for CGAP (2013)

ANNEX 3.3

Illustrative account limits imposed by regulators under a risk-based approach

As Part 3 and Annex 3.1 explain, a common method for countering the potential for abuse of digital financial services is to impose limits on the value of account balances and the value and frequency of transactions within certain time periods. Low transaction limits can make it impractical to misuse digital financial services, but this benefit must be weighed against the loss of utility from having accounts that can accept, for example, recurring remittances or salary payments without constantly hitting the ceiling.

Maximum Balance and Transaction Limits for Mobile Money, E-money, and Other Low-Value Accounts

Country	Transaction (USD)	Daily (USD)	Monthly (USD)	Annually (USD)	Balance (USD)
Afghanistan	$220 (22%)	$660 (66%)	$3,300 (330%)		$3,300 (330%)
India	$110 (3.2%)		$550 (16.2%)		
Kenya (current)	$840 (52.5%)	$1,690 (105.6%)			$1,210 (75.6%)
Kenya (draft)	$750 (46.9%)	$10,000 (625%)			
Namibia (revised)	$580 (8.4%)	$580 (8.4%)	$2,900 (42%)	$12,550 (181.9%)	$1,250 (18.1%)
Philippines			$2,200 (62.9%)		
S. Africa		$650 (6.1%)	$3,270 (30.6%)		$3,270 (30.6%)

Note: Figures are in USD and also expressed as a percentage of GDP/capita adjusted for purchasing power

ANNEX 3.4

Selected examples of initial and ongoing minimum capital requirements for nonbank e-money issuers (in USD and as a multiple of GDP per capita as adjusted for purchasing power).

These requirements help ensure that financial institutions can satisfy their obligations to consumers, among other things. But setting capital requirements must be done with care so that firms are not unnecessarily prevented from offering products and services alongside more established, well-funded market players.

Country	Initial Requirement (USD)	Ongoing Requirement (USD)
Afghanistan	$200,000 (234x PPP GDP per capita)	$200,000 AND 1.5% of "historical average e-money"
EU	$430,000 (15x)	2% of "average outstanding electronic money"
Kenya (draft)	$650,000 (417x)	$650,000
Namibia	$320,000 (52x)	The greater of: (1) $320,000; or (2) 2% of outstanding electronic money liabilities
Philippines	$2 million (619x)	$2 million
BCEAO (West African Economic & Monetary Union)	$500,000 (494x)	8% of the greater of (1) the prior day's; or (2) average outstanding e-money liabilities. outstanding e-money liabilities.

PART 4

ANNEX 4.1

Achieving "scale" in digital financial services.

When do you know that digital financial services have reached scale? What does "scale" mean?

"Scale" derives meaning entirely from what you hope to scale—perhaps you mean DFS as an ecosystem, a method for maintaining liquidity in agent networks, a technology for accessing DFS, a set of training materials for consumers of DFS, etc. "Scale" is often defined in absolute terms (e.g., reaching no less than a million people), but that may not adequately convey an opportunity or challenge, depending on what you hope to scale and where and how you hope to scale it.

In a business sense, "achieving scale" often implies achieving commercial viability (i.e., sustainability achieved by a business model by passing the break-even point and, over time, having higher revenues than costs).

For DFS, viability tends to be a function of transaction volumes, due to the low incremental costs associated with each additional active user. But if you define "achieving scale" in DFS with financial inclusion in mind, simply achieving commercial viability for a DFS may not be enough, since it may produce a return on investment before reaching deeply into unbanked populations—this suggests that to achieve full financial inclusion, any strategy for achieving scale in DFS should look beyond just commercial viability.

In "Beyond the Pioneer: Getting Inclusive Industries to Scale," Harvey Koh, Nidhi Hegde, and Ashish Karamchandani describe primary barriers to scale at four levels of an ecosystem. The barriers suggest avenues of approach for a donor intending to facilitate the scale of DFS along a particular dimension. Barriers for *firm-level participants* (such as NGOs or merchants that accept payments through DFS) range from a lack of technical skills, to inadequate back-end systems, to a lack of perceived value from using DFS. Barriers for *value chain participants* (such as agents, agent networks, banks, or MNOs) range from a lack of capital for either startup or ongoing expenses for maintaining adequate liquidity, to poorly trained agents, to insufficient numbers of agents to ensure convenient cash-in/cash-out points for consumers. Barriers at the *public good level range* from low levels of awareness, technical literacy, or financial literacy among consumers. Barriers may also include a lack of understanding of consumer needs, preferences, and behaviors. Barrier at the *government level* range from a lack of technical understanding of DFS, to poorly conceived regulatory frameworks, to poor coordination among relevant stakeholders.

For mobile money, where many markets measure ecosystem growth using similar metrics, a McKinsey study, "Mobile Money: Getting to Scale in Emerging Markets," identified rough rule-of-thumb benchmarks where you might observe a tipping point for viability for mobile money services (like M-PESA, which has a suite of services ranging from person-to-person transfers to bill payments).

Indicator	Success is
% of active mobile-money users among total telco subscriber base	>10%
Number of customers per agent (across growth trajectory)	400–600
Average number of transactions per agent/day	30–50
Average number of transactions per customer/month	>2.5

The percentage of active mobile money subscribers versus total MNO subscribers reflects the importance of network effects in making the service useful to consumers. The number of customers per agent reflects a base level of agent density that would ensure that consumers are not too far away from cash-in or cash-out points. The number of transactions per agent per day reflects the minimum number of transactions that an agent would need to process to recoup start-up investments and justify being an agent. Finally, the number of transactions per customer per month reflects the minimum number of transactions that a customer would need to perform to remember how to use the service, develop a habit of using it, and consider other service offerings beyond the core transfer services.

Naturally, benchmarks from market to market can vary widely. For example, the minimum number of transactions heavily depend on the start-up investment required to be an agent (let alone to be a DFS provider) and the fee structure for transactions. For more insight on scale and sustainably offering services to the poor through new distribution channels, read:

- Fighting Poverty Profitably: Transforming the economics of payments to build sustainable, inclusive financial systems, Gates Foundation;
- The Power of Social Networks to Drive Mobile Money Adoption, CGAP;
- Scaling Up—From Vision to Large-Scale Change: A Management Framework for Practitioners, MSI; and
- Beyond the Pioneer: Getting Inclusive Industries to Scale, Monitor Inclusive Markets.

ANNEX 4.2

10 ways to accelerate ecosystem growth for digital financial services

USAID and Citi have come together to establish the Mobile Money Accelerator Alliance. In 10 Ways to Accelerate Mobile Money, the Alliance has identified ten ways that stakeholders can work to accelerate the development of mobile money ecosystems. These recommendations can be tailored slightly to apply to DFS in general:

1. Ensure digital financial services are safe and transparent: National regulators and international standard setting bodies should seek to develop and promote proportionate, risk-based regulatory frameworks that protect customers without stifling innovation.

2. Establish an inter-agency government process to coordinate decision affecting digital financial services: Governments should develop mechanisms for ensuring proper coordination and providing various governmental entities with opportunities for input into policy development. As DFS potentially are relevant to many governmental entities—ranging from financial regulators to entities responsible for pensions, agriculture, and social payments—a diversity of governmental stakeholders should be invited to participate. Governments should also develop mechanisms for coordinating with and seeking input from private-sector stakeholders.

3. Leverage digital financial services for government and donor payments and collections: Governments and donors can use DFS channels for disbursement and receipt of payments. In addition to strengthening the business case for DFS through increased transaction volume at agents and/or over mobile phones, the use of DFS offers a variety of benefits such as lower costs, greater transparency, and the ability to use such payments as a stepping stone to formal financial inclusion.

4. Encourage retailers (particularly those with large distribution networks, like fast-moving consumer goods companies) to accept digital financial services: The value of DFS to individual customers depends in large part upon the extent to which customers may use funds electronically without first having to cash out. In addition, reducing the amount and frequency of cash-out of funds helps to reduce the costs and risks associated with agent cash management. An excellent example is Telesom's Zaad mobile money service in Somaliland. By signing up many merchants and not charging for payments and transfers, Telesom has become the first provider to convince customers to use mobile money as a cash replacement tool. As of 2013, every dollar in the Zaad system was transferred an average of 4.1 times before being cashed out, compared to an average of 1.2 times for M-Pesa.

5. Promote open-architecture policies and interoperability within and across ecosystems: Over time, full interoperability of DFS ecosystems is highly desirable. As discussed in Part 3, however, mandating full interoperability during the early stages of market development may end up stunting market growth. Regulators can instead monitor ecosystem development and require the use of open, non-proprietary systems that are capable of low-cost interconnection in the future.

6. Allow remittances traveling by way of digital financial services to move seamlessly and affordably across borders and mobile networks: Billions of dollars of cross-border payments

are transferred via informal mechanisms. These mechanisms are non-transparent and often very costly. Facilitating the sending and receiving of remittances and other cross-border payments via mobile wallets and other digital financial infrastructure should lower costs and certainly will increase transparency of cross-border payment flows.

7. Pilot programs to test innovative approaches, conduct impact analyses, and develop replicable opportunities to scale: As noted above, access to "soft" funds and a focus on the poor and underserved are major comparative advantages for donors. Donors can support experimentation and accelerate innovation.

8. Ensure people are adequately protected through client education and consumer protection measures: While DFS offer great potential for reaching the poor and underserved, these populations often face challenges with respect to limited formal education, illiteracy, and inexperience with formal financial services and digital services in general. Donors and governments can help to ensure that poor and underserved customers benefit from DFS through education and consumer protection efforts.

9. Facilitate the ability of people to cash in and out of their digital account: As noted in Point 4 above, agent liquidity management is a key challenge to the adoption and growth of DFS, particularly in remote areas far from banking infrastructure. As Point 4 demonstrates, efforts to incentivize the use of funds on the wallet rather than cashing out immediately can help. In addition, stakeholders can consider ways to reduce liquidity demands on agents such as by staggering distribution of G2P or B2P payments rather than making all payments on one day.

10. Account for and resolve the low proportion of people with full identity documentation: As discussed in Part 3, strict rules with respect to customer identification and verification can inadvertently limit access to DFS. Providers can address this challenge through the use of biometric identification, while governments can develop tiered, risk-based regulatory frameworks that provide greater flexibility for low-value accounts and transactions. Governments and donors also can work to develop national identification schemes that can help to ensure that poor and underserved individuals are able to access formal financial services and government services.

ANNEX 4.3

Illustrative USAID projects that strengthen ecosystems for digital financial services

Illustrative Efforts by USAID Focused Only on Strengthening Digital Financial Service Ecosystems	Summary
Better Than Cash Alliance (BTCA): Afghanistan, Colombia, Kenya, Malawi, Peru, Philippines (Additional governments may join alliance. It is also designed to allow USAID Missions to "buy into" it.)	The BTCA, co-founded by USAID in 2012, is a worldwide alliance of organizations that have committed to shifting significant payment streams away from cash to electronic methods of disbursement and collection. Members are both public and private institutions. In addition to raising awareness of the "best" practices for digitizing payments in ways that will increase financial inclusion, the BTCA also aims to grow the knowledge base of how to achieve shifts away from cash. To that end, the BTCA has a significant research component for case studies and to analyze the payments landscape in certain markets and recommend what actions to take to enable greater use of electronic payments. The BTCA is also developing diagnostic tools that organizations can use to analyze their own payment flows. Finally, the BTCA works to convert large institutional payment streams to electronic methods and provides members with targeted technical assistance to do so.
Mobile Solutions Technical Assistance and Research (MSTAR): Bangladesh (MSTAR is an associate award of FIELD-Support, a leader-with-associates award of FHI 360. It is designed to allow USAID Missions to "buy into" it to support projects through its consortium of technical experts in the digital financial service ecosystem. USAID's Mobile Solutions team manages this project.)	MSTAR-Bangladesh aims to foster the adoption of mobile money services by increasing the level of use by implementing partners in agriculture, education, and health. It began by studying market readiness and surveying implementing partners to identify opportunities to integrate mobile money into programming. That survey led to recommendations on how the Mission and implementing partners could integrate mobile money and pursue other ecosystem-strengthening objectives.
Mobile Money Implementation Unit (e-MITRA): Indonesia	e-MITRA aims to support the development of an enabling regulatory framework that increases investment in the sector and removes barriers to the build-out of agent networks. e-MITRA (1) provides technical assistance to the regulator and select banks and mobile financial service providers that are rolling services out and piloting agent banking business models; (2) conducts critical research to fill key knowledge gaps and help providers understand behaviors and needs of ecosystem stakeholders in specific payment streams; and (3) uncovers market insights by developing business cases and effective service designs for offering mobile financial services to unbanked groups.

Illustrative Efforts by USAID Focused Only on Strengthening Digital Financial Service Ecosystems	Summary
Mobile Money Accelerator Program (MMAP): Malawi	MMAP aims to increase the adoption and use of mobile money through a mix of targeted technical assistance to key stakeholders and pilots designed to inform stakeholders of how to regulate, promote, use, and market mobile money most effectively. A significant component of MMAP involves coordinating stakeholders (particularly donors, government counterparts, banks, and MNOs) through the Mobile Money Coordinating Group. Because the Government of Malawi is also a member of the BTCA, MMAP is working to ensure that public commitment to the BTCA can be supported with concrete follow-on engagement.
Scaling Innovations in Mobile Money Project (SIMM): Philippines	SIMM is a pioneering project for USAID, building on the legacy of USAID's achievements in strengthening microfinance in the Philippines through the MABS program. SIMM aims to increase financial inclusion by (1) increasing the availability and adoption of mobile money services and (2) creating an enabling environment for mobile money. SIMM's approach includes four focus areas: (1) strengthening the payment system; (2) increasing the use of electronic payment methods in government services and G2P; (3) increasing the use of electronic payment methods for payrolls (e-Payroll); and (4) strengthening and growing the agent networks of mobile money services. Because the Government of the Philippines is also a member of the BTCA, SIMM works to support the public commitment to shift government payment streams away from cash.

PART 6

ANNEX 6.1

Resources and tools for incorporating digital financial services into project designs

Resources and Tools	Type	Description
DIGITAL INCLUSION		
Mobile Access Diagnostic	Diagnostic	For understanding and increasing mobile access. Refer to Part 1 for the issues that this diagnostic examines. (USAID's Digital Inclusion team is currently developing this diagnostic and expects to complete it by late 2014.)
GSMA mWomen Research Toolkit	Survey Methodology	This toolkit includes all research and survey materials used to produce the report, "Striving and Surviving: Exploring the Lives of Women at the Base of the Pyramid." Guides for ethnography observation, focus group discussions, opinion leader discussions, and a wants and needs questionnaire. These materials informed the report, "Connecting to Opportunity: A Survey of Afghan Women's Access to Mobile Technology," USAID (2013).
MOBILE DATA		
Principles for Digital Development	"Best" Practices for Using ICT in Development Programs	This set of principles, the "Greentree Consensus," reflect lessons learned by development organizations in effectively using information and communication technologies. USAID, UNICEF, and the Bill & Melinda Gates Foundation are among the endorsers.
Mobile Data Resources and Learning Group	Tools and Materials for Project Design	This set of resources includes introductory explanations of mobile data collection, the use of forms,, visualization, and project design. As a group hosted on USAID's Learning Lab, a range of other third-party tools are available as well (e.g., on monitoring and evaluation and customer satisfaction survey techniques).
DIGITAL FINANCIAL SERVICES		
Diagnostic of Environment for Branchless Banking (see Annex A)	Diagnostic	Reviews "preconditions and other factors likely to contribute to sustainability and scalability. The questions...provide a snapshot of the demand, supply, and enabling environment for branchless banking in a specific country." From "Innovations in Financial Services Delivery - Branchless Banking: Primer, Diagnostic Checklist, and Model Scopes of Work," USAID (2010).

Resources and Tools	Type	Description
Diagnostic of Environment for Mobile Money (see Annex A)	Diagnostic	Focused more narrowly on mobile money, this diagnostic reviews "preconditions and other factors likely to contribute to sustainability and scalability. It contains a non-exhaustive series of questions addressing market factors, enabling environment issues and USAID programmatic considerations." From "Enabling Mobile Money Interventions: Primer, Diagnostic Checklist, and Model Scopes of Work," USAID (2010).
Diagnostic of Branchless Banking Regulatory Environment	Diagnostic	This diagnostic is designed to help you "(i) understand applicable regulatory frameworks, (ii) identify current or potential restrictions on the growth of branchless banking and gaps in protection of customers or the integrity of the financial system, (iii) ascertain government and industry willingness to increase financial access to the poor and (iv) propose recommendations and solutions to facilitate branchless banking's development as a means of extending financial services to the unbanked poor." From "Branchless Banking Diagnostic," CGAP (2011).
Scope of Work for Financial Sector Evaluation and Branchless Banking Feasibility Study (see Annex B)	Scope of Work	This scope of work for a 30-day study includes 3 days for background research, 20 days for in-country interviews and visits, and 7 days for deliverable completion. Objectives: Conduct an evaluation of [Country]'s financial sector and determine the feasibility of supporting branchless banking models for expansion of financial access to underserved and unbanked populations. The consultant will (1) provide the mission with an assessment of the feasibility of implementing a branchless banking approach to financial services provision in [Country]; (2) recommend potential business models, technology, partners, and other elements required for successful solutions; (3) identify mechanisms and/or programs through which the branchless banking activity can be implemented; and (4) describe next steps toward development and implementation. From "Innovations in Financial Services Delivery - Branchless Banking: Primer, Diagnostic Checklist, and Model Scopes of Work," USAID (2010).

Resources and Tools	Type	Description
Scope of Work for Long-Term Technical Assistance Implementing a Pilot Branchless Banking Program (see Annex B)	Scope of Work	This scope of work can be used if the feasibility study of the branchless banking environment is promising. Objectives: The purpose of this consultancy is to implement a pilot branchless banking program in [xx] area, document the success and challenges faced during the pilot phase, and make recommendations regarding a broader rollout of the activity to areas targeted by the mission. The pilot program will take place over a period of 18 months, with the final six months dedicated to evaluating, knowledge-sharing, and preparing for the next steps. From "Innovations in Financial Services Delivery - Branchless Banking: Primer, Diagnostic Checklist, and Model Scopes of Work," USAID (2010).
Scope of Work for Short-Term Technical Assistance: Assessment and Recommendations (see Annex B)	Scope of Work	This scope of work is for a 30-day study. Objectives: The objective of this model scope of work is to provide USAID with a comprehensive assessment and recommendation report of the regulatory environment and market factors affecting the development of [mobile money.] The exercise is specifically focused on identifying solutions that [include target populations, expand access to finance in rural areas, and other considerations important to the mission]. The Scope of Work includes an enhanced market analysis of mobile money interventions, evaluates the legal and regulatory framework and technological capacity for branchless banking, and ends with conclusions and recommendations that prioritize feasible development interventions for USAID/[country]'s consideration. From "Enabling Mobile Money Interventions: Primer, Diagnostic Checklist, and Model Scopes of Work," USAID (2010).
Scope of Work for Long-Term Technical Assistance: Developing the Mobile Money Ecosystem (see Annex B)	Scope of Work	This scope of work for a 2-year period can be used if the short-term Assessment and Recommendations Report identifies an opportunity to engage in the mobile money ecosystem at different levels: customer (financial education); micro (capacity-building); meso (knowledge-sharing); and macro (regulatory engagement). Objectives: Increase access to finance in rural areas by developing m-banking and m-money transfers in [country] into a sustainable and profitable sector.usions and recommendations that prioritize feasible development interventions for USAID/[country]'s consideration. From "Enabling Mobile Money Interventions: Primer, Diagnostic Checklist, and Model Scopes of Work," USAID (2010).

Resources and Tools	Type	Description
Action Plan for Mobile Money Pilots and Demonstration Projects	Action Plan Methodology	This action plan built on an assessment that identified opportunity to increase financial inclusion through digital financial services by "identify[ing] barriers to commercial adoption and link[ing] a range of public and private initiatives into a coordinated set of activities." The action plan includes a methodology for identifying and planning pilot activities, a GANTT chart for deliverables, and explanation of anticipated impacts. From "Accelerating Mobile Money in Indonesia: Action Plan," USAID (2011).
Survey for Understanding Financial Behaviors of Farmers and Preferences for Mobile Financial Services	End-User Survey Methodology	This study examined how cocoa farmers engage with financial services (in the context of an agricultural supply chain), their mobile usage, and their needs/preferences for mobile financial services. The study also explained how it used mobile data collection to generate its findings. From "Market Insights Into the Financial Behaviors and Design of Mobile Financial Services Products for Cocoa Farmers in Indonesia," USAID (2013).
Business Plan for Scaling Mobile Money Among Group of Farmers	Business Plan	This business plan scoping exercise complemented an action plan developed for increasing financial inclusion through the use of digital financial services. Focused on cocoa farmers in Indonesia, the business hypothesis was that: A viable mobile money ecosystem can be developed in South Sulawesi by leveraging the cash payment streams of the cocoa value chain. With cocoa payments as the catalyst, mobile money providers — both banks and mobile network operators — will invest in agent networks and other mobile money infrastructure and work to develop a broad-based mobile money network. This network will not only serve currently unbanked and underbanked cocoa farmers but will also provide a wider platform for financial inclusion in the region. From "Accelerating Mobile Money in Indonesia: South Sulawesi Mobile Money Business Plan," USAID (2011).
Assessment of Market and Implementing Partner Use of Mobile Money (see Appendices 1 and 2)	Market Research Methodology and Interview Questions	This assessment consisted of desk research, a survey of implementing partners for USAID, and a series of interviews and workshops over 2 weeks in-country. Objectives: Provides recommendations to implementers and donors on how both can properly assess opportunities and challenges for using mobile money to replace cash payments. From "Uganda Mobile Money Assessment and Case Study: Examining Cash Payment Streams and Their Electronic Alternatives Amongst USAID Implementing Partners," USAID (2013). Also see "Tanzania Mobile Money Market Assessment and Case Study," USAID (2013).

ANNEX 6.2

Indicators for understanding ecosystem growth for digital financial services

Type of Indicator (some overlap may exist)	Indicator (many may be disaggregated by gender)	Relevance
Access	Number of registered agents for mobile money	Basic measurement of access points for consumers of mobile money. Can be paired with the number of bank branches, POS terminals, and ATMs to get a better sense of access to financial services, particularly in rural and poor areas. Mobile money services depend on an adequate density of agents for opening accounts, training consumers, and handling cash-in and cash-out requests.
Access	Number of new agents per month	Reveals growth trends of consumer demand for mobile money, since start-up costs for agents require an adequate pool of prospective consumers in a geographic area.
Access	Number of active agents	More meaningful than agent registration numbers, because high rates of active agents imply that individual agents are performing enough transactions (volume and number) to justify continued investment in serving as an agent.
Access	Agent acquisition cost	Reveals the level of investment necessary to launch a mobile money service with a functioning agent network. Costs include agent outreach, training, and equipping. As networks grow, the cost will likely go down. Costs may be less when agents are employees in businesses with many locations.
Access	Cost per round-trip saving (deposit and withdrawal of funds)	Reveals, when compared to the cost of analogous transactions with traditional financial institutions, how affordable the mobile money service is. Transaction fee structures vary but are often tiered (e.g., free up to $___, and then $ .10 per transaction), percentage-based (e.g., 3 percent of value deposited), or both. If the cost of cashing-in and cashing-out is too high, then the service's other benefits (time savings, security) may not be sufficient to justify use.
Access	Amount of cash and electronic value held by agents	Serves as an indicator of access, as agents cannot effectively meet customer needs without sufficient cash and electronic value to facilitate cash-in and cash-out.
Acceptance	Number of registered users	Basic measurement of adoption of mobile money. Can be paired with mobile access rates to understand how much of the addressable market is adopting the service.
Acceptance	Number of new users per month	Reveals user growth trends and the effectiveness of both awareness and financial/technical literacy campaigns.
Acceptance	Number of users per agent	Reveals level of demand served by each agent. Markets benefit from a reasonable level of demand per agent that ensures sufficient local points of access for cashing in and out of mobile money accounts. If demand per agent is too low, relative to the cost of being an agent, then fewer agents will stay active. If demand per agent is too high, agents will have difficulty managing cash and ensuring sufficient liquidity.

Type of Indicator (some overlap may exist)	Indicator (many may be disaggregated by gender)	Relevance
Utility	Number of active users	More meaningful than registration numbers, because active use (typically defined as at least one transaction every 30, 60, or 90 days) implies that users understand, derive value from, and can potentially sustain more commercially viable services enabled by mobile money.
Utility	Average balance of mobile money accounts	Reveals how users derive value from mobile money. Higher balances imply greater trust in mobile money and can also suggest use of mobile money as a saving mechanism and for more transaction flows (P2P, G2P, etc.).
Utility	Agent attrition rate (closed agents versus total agents)	Low attrition rates suggest the service is satisfying the needs of the agent. High rates can be due to many things, including inadequate training, high costs to the agent, high agent density, and low consumer demand.
Utility	Number of user transactions per month (and by type)	Reveals, along with the number of active users, the level of adoption. Once the number of transactions reaches a certain point, the number of transactions, relative to the number of active users, can suggest use of mobile money for more and more everyday purchases. Early on, the service may not be used more than 2-3 times each month, such as for salary payments or domestic remittances.
Utility	Value of user transactions per month (and by type)	Reveals, along with the number of user transactions per month, the level of adoption and, indirectly, trust in the service.
Utility	Number of transactions per month per agent (and by type)	Reveals, along with the value of user transactions per month per agent, whether agents have enough volume to obtain a reasonable return on their investment. Transaction volume is key to sustainability, since agent revenue typically is a mix of fixed fees (such as for opening user accounts and helping users perform at least one transaction upon opening) and transaction-based fees (where the agent receives a commission equal to a portion of the value transacted).
Utility	Value of user transactions per month per agent (and by type)	Reveals, along with the number of user transactions per month per agent, whether agents have enough transaction value to obtain a reasonable return on investment.
Utility	Cost per round-trip transfer (deposit, transfer, and withdrawal)	Reveals how affordable the service is, a key criterion for financial inclusiveness. This cost can be compared to alternative non-mobile services to understand degrees of inclusiveness. However, to reflect the full cost of alternatives, the comparison would have to account for "hidden costs" like the cost of travel (such as to a bank), the opportunity cost of time (in terms of lost labor), and the cost of security (in terms of the risk of theft).

Access indicator data: Companies (primarily MNOs and financial institutions) typically have the most fine-grained, wide-ranging data points, because their systems allow for it and their competitive advantage depends on data. Governments typically only have access to the minimum level of data that regulated institutions are required to submit (governments may, of course, pursue other surveys or research).

Donors must rely primarily on these companies and regulators for access to the most relevant, detailed data; this access, which is not always granted, depends on trust and coordination. In some cases, the indicator may be disaggregated by gender and age, among other dimensions.

Depending on the indicators that you select, based on your project's components, you may rely on the following stakeholders.

- Central Bank: Central banks require financial institutions (whether banks or non-banks) to report quarterly, monthly, and/or annually on a defined set of indicators. These reports may be posted publicly on the central bank's website; most central banks (such as Nigeria's) at least list all licensed institutions. Annual reports (such as Kenya's) often include summary statistics or insights on market growth, touching often on mobile money. As the primary regulator of all financial institutions, central banks also post laws, regulations, guidelines, and supervision-related publications (see, for example, the Bangko Sentral of the Philippines).

- Ministry of Finance: Most Ministries of Finance manage all government payment flows (receipts and disbursements). They can track payment volumes, frequencies, recipient types, and mechanisms (cash, check, EFT, voucher, mobile money, etc.). BTCA's diagnostic work in mapping payment flows includes dialogue with the government to understand these flows.

- Ministry of Telecommunications (or equivalent): Telecom regulators require all licensed mobile network operators (MNOs) to report on certain indicators, such as network downtime rates, number of MNO distribution agents, etc. Many of these reports are posted publicly on the ministry website.

- MNOs: Data is closely guarded by most MNOs for competitive reasons. But certain details of their service are posted on their website, if only because the regulator mandates public disclosure, such as a full list of the names and locations of all mobile money agents, transaction fee tables, and consumer-compliant recourse procedures. MNOs also may disclose useful data in investor reports (such as Safaricom's in Kenya, which include much data on M-PESA). Orange, an MNO active in Côte d'Ivoire, briefly shared more data than most when it released a time-bound set of its subscriber usage data from 2011-2012 for research by development-focused institutions in its Data for Development Challenge.

- GSMA: Because GSMA is the primary industry association for telecoms worldwide, it is in a prime position to collect, organize, and disseminate data that are unavailable elsewhere, even for regulators. GSMA Intelligence collects reliable, detailed, quarterly numbers on the number of connections, number of SIM cards, market share of MNOs, degree of market penetration and network coverage, growth rates, and a host of other data points. Similarly, GSMA's Mobile for Development Intelligence website tracks over a thousand development-useful services worldwide. Much of the data that GSMA collects is translated into reports and case studies posted on its website and presented in its annual State of the Industry reports.

- International Telecommunications Union: The ITU is an international NGO that collects many

mobile access-oriented indicators and produces a range of reports and surveys.

- World Bank: The most relevant indicators tracked by the World Bank for financial inclusion are included in the Global Findex, a survey of 148 countries with detailed, country-by-country data on 506 indicators of how people use financial services, disaggregated by gender, education level, location, and other dimensions. The first survey was released in 2011, and the next will collect data in 2014 and be released in April 2015 (among the tools in its suite are the World Bank eAtlas Tool for Financial Inclusion). The World Bank also conducts similarly detailed surveys and research on (1) payment systems (the infrastructure upon which all banking and mobile money services ultimately rely) and the types of payment flows made by governments; and (2) remittances, including data on volumes, corridors, prices, and user demographics. The most recent payment system survey is from 2010.

- Other Donors: A range of indicators are collected by donors, though often on a country-by-country basis or for a narrower research objective. CGAP, IFC, and the Bill and Melinda Gates Foundation are all excellent resources. CGAP and IFC release an annual access-to-finance survey covering 187 jurisdictions. The Gates Foundation's Financial Services for the Poor program conducts significant research, including (1) a rich report from 2013 studying the business case for extending key poverty-fighting services to the poor; and (20 FSP Maps, an interactive mapping tool of financial access points in Bangladesh, Kenya, Nigeria, Tanzania, and Uganda.

ANNEX 6.3

Checklist for using mobile technology in projects

STEP 1: Define project goals (type your project goals in the field below)

STEP 2: Determine your pre-requisites (circle or highlight all that apply)

How are you thinking about using mobile?	Requisite functions	Minimum delivery model requirements	Minimum device requirements
Information sharing	Push (for one-way) plus Pull (for two-way)	Basic: SMS, voice, IVR	Basic phone
Data collection	Push, Pull, Storage	Basic: SMS, voice Advanced: App	Basic: basic phone; Advanced: feature phone, smartphone, tablet
Payments	Transaction	USSD, SMS	Basic phone
Facilitating networks (i.e. trade)	Push and Pull	Basic: SMS, voice, IVR Advanced: App	Basic: basic phone; Advanced: feature phone, smartphone, tablet
Community building	Push and Pull, and/or Interactive	Basic: SMS, voice, IVR Advanced: App, web, and/or messaging	Basic: basic phone; Advanced: smartphone, tablet
Supply chain management (health, agriculture, etc.)	Push, Pull, Storage	Basic: SMS, IVR Advanced: App, web	Basic: basic phone; Advanced: feature phone, smartphone, tablet
Other			

What other additional features do you need?	Minimum delivery model requirements	Minimum device requirements
Geo-location	GPS	Some feature phones, all smartphones and tablets
Photo sharing	MMS, web	Some feature phones, all smartphones and tablets
Video sharing	App, web	Smartphone, tablet

Based on all of the above, what are your minimum requirements? (select all that apply)	
Function	☐ Push ☐ Pull ☐ Storage ☐ Transaction ☐ Interactive
Delivery model	☐ SMS ☐ Voice ☐ IVR ☐ Web ☐ App ☐ MMS ☐ Messaging ☐ GPS
Device	☐ Basic ☐ Feature phone ☐ Smartphone ☐ Tablet

STEP 3: Collect data to understand the landscape		
Macro-level data	Data (insert your findings here)	Assessment (High, Medium, Low)
SIM penetration		☐ High (over 80%) ☐ Medium (50-80%) ☐ Low (less than 50%)
Network coverage (list by 2G, 3G, and/or 4G)		☐ High (over 80%) ☐ Medium (50-80%) ☐ Low (less than 50%)
Telecom Sector Competition (list MNOs, launch date, market share)		☐ High (over 5) ☐ Medium (3-5) ☐ Low (1-2)
Current mobile service availability		☐ High (5 or more relevant services) ☐ Medium (2-4 relevant services) ☐ Low (0-1 relevant services)
Current local technical capacity		☐ High (significant capacity) ☐ Medium (existent capacity) ☐ Low (extremely limited capacity)
Adult literacy		☐ High (over 80%) ☐ Medium (50-80%) ☐ Low (less than 50%)
Policy and regulatory environment (i.e. mobile money regulations, data/voice price ceilings, SIM ownership, etc.)		☐ High (supportive) ☐ Medium (permissive) ☐ Low (restrictive)

STEP 3: Collect data to understand the landscape (CONTINUED)		
Micro-level data	Data (insert your findings here)	Assessment (High, Medium, Low)
Handset ownership (based on your minimum device requirements)		☐ High (over 80%) ☐ Medium (50-80%) ☐ Low (less than 50%)
Access to mobile phones (includes those who do not own but can use someone else's)		☐ High (over 80%) ☐ Medium (50-80%) ☐ Low (less than 50%)
Target user literacy (including digital literacy)		☐ High (over 80%) ☐ Medium (50-80%) ☐ Low (less than 50%)
Frequency of mobile usage (typical target user)		☐ High (every day) ☐ Medium (a few times a week) ☐ Low (less than once a week)
Access to other ICTs (radio, TV, fixed line telephone, computer)		☐ High (over 80%) ☐ Medium (50-80%) ☐ Low (less than 50%)
Disposable income		☐ High (significant) ☐ Medium (modest) ☐ Low (none)
Mobile money usage (if applicable)		☐ High (over 80%) ☐ Medium (50-80%) ☐ Low (less than 50%)

STEP 4: Decide on what types of mobile solutions might be possible (based on the above)
Based on your requirements and the data you collected, what type of mobile solutions do you think might be possible?
What cost impact would using mobile solutions potentially have if it were integrated into the proposed project?
What types of initiatives or activities might be necessary to further facilitate the uptake of the types of mobile solutions you are interested in? *While there is no magic number for the scoring in step 2, a significant number of 'low' scores might be a sign that more proactive measures are necessary.*

Source: Integrating Mobile Solutions into Development Projects: A Handbook for USAID Staff, FHI360 and Open Revolution (draft as of Jan 2013)

ANNEX 6.4

Sample technical evaluation criteria for projects with a mobile component

Technical Proposal Evaluation Part 1	Points Obtainable	Company/Other entity			
		A	B	C	D
Expertise of Firm / Organization submitting proposal					
Overall reputation of Organization (competence / reliability, resources and experience in mobile solutions (mobile money, mobile data, mobile access)					
Organizational proven capacity of the Offeror to deliver a field-based mobile solution program					
Quality assurance procedures and mechanism, guarantee provided by the firm					
Knowledge of mobile solutions technologies (e.g., services, applications, devices)					
Knowledge of agent networks and customer support					
Experience on similar programs / projects					
Understanding of mobile solution trends					
Training development and delivery expertise					
Experience of working in the target region					
Total Part 1					

Technical Proposal Evaluation Part 2	Points Obtainable	Company/Other entity			
		A	B	C	D
Methodology, approach and understanding of mandate					
Does the proposal address the program needs as described in the TOR?					
Has the bidder acknowledged and addressed the key challenges to deploying a mobile solution?					
Has the bidder proposed a viable training program?					
Does the bidder propose a viable business model that addresses near-term and long-term service payment requirements					
Is the presentation clear, cohesive and does it augur sufficiently well for the proper provision of support and advice?					
Experience of working in the target region					
Total Part 2					

Technical Proposal Evaluation Part 3	Points Obtainable	Company/Other entity			
		A	B	C	D
Personnel					
Qualifications of Senior Specialists					
• Professional Experience in mobile solutions (e.g., mobile money, mobile applications, mobile access					
• Relevance of experience to TOR					
• Direct experience in implementation of mobile solutions					
• Proven ability to engage with senior level stakeholders					
• Proven ability on strategy development and planning					
• Training Experience					
• Knowledge of the region					
Qualifications of Specialists					
• Professional Experience in the area of specialization					
• Relevance of experience to TOR					
• Direct experience in implementation of mobile solutions					
• Evidence of development of reports, tools, manuals, models					
• Training Experience					
• Knowledge of the region					
Qualifications of Junior Specialists					
Professional experience in the area of specialization					
• Evidence of research capability					
• Evidence of development of reports, tools , manuals					
• Diversity of relevant skills and expertise in the firm					
Experience of working in the target region					
Total Part 3					

ANNEX 6.5

Illustrative Performance Indicator Reference Sheet

Strategic Objective: Increase the access and usage of mobile money in Malawi

Intermediate Result: IR.1 – Demand for Mobile Money Increased, IR.2 – Mobile Money Infrastructure and Systems Strengthening

Key Result Area: KRA-1 – Public Awareness of mobile money increased, KRA-5 – Private and Public Sector Investment in Mobile Money Ecosystem Increased, KRA-6 – Capacity of Mobile Service Provider and Financial Institution to Deliver Mobile Money Strengthened
Indicator: Indicator 13 – Number of farmers and others who have applied new technologies or management practices as a result of USG assistance

DESCRIPTION

Precise Definition(s): Number of farmers participating in mobile-enabled payment programs to include eVouchers, agricultural value chain payments, mobile enable loan programs, and training

Unit of Measure: Number of farmers impacted by mobile money initiatives

Disaggregated by: Geography and gender

Justification & Management Utility: Feed the Future metric designed to measure the beneficial impact of technology on farmers

PLAN FOR DATA ACQUISITION BY THE PROJECT

Data Collection Method: MMAP will aggregate previous metrics and segment by farmer participant (i.e. G2P payments, ag value chain payments, total number of mobile wallets, public awareness events, and financial literacy training)

Data Source: MMAP sector scan, MNO platform data, NGO program data

Frequency and Timing of Data Acquisition: Number of farmer participants will be provided quarterly

Estimated Cost of Data Acquisition: Approximately 40 hours of MMAP staff time per quarter will be required to collect and validate data

Responsible Individual at the Project: COP and Knowledge Management Officer

DATA QUALITY ISSUES

Date of Initial Data Quality Assessment: April 30, 2013

Known Data Limitations and Significance (if any): Not all activities will segment totals by farmer

Actions Taken or Planned to Address Data Limitations: Incorporate farmer designation in all MMAP program activities

Date of Future Data Quality Assessments: October 30, 2013

Procedures for Future Data Quality Assessments: MMAP team will aggregate a range of data elements and extract farmer participation content

PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING

Data Analysis: MMAP Knowledge Management Officer will analyze number of farmers impacted by mobile money technology

Presentation of Data: Data will be presented in tables and charts

Review of Data: Data will be reviewed and analyzed semi-annually within two weeks after submission

Reporting of Data: Results will be presented in MMAP semi-annual reports as well as periodic in process reviews conducted with USAID Mission Malawi and the USAID IDEA Lab

OTHER NOTES

Notes on Baselines/Targets: Baselines are based on number of farmers impacted by mobile money at project inception (September 2012)

Other Notes: None

PERFORMANCE INDICATOR VALUES

Year	Target	Actual	Notes
2012	Enter target value	Enter actual value	Enter explanation here
2013			

THIS SHEET LAST UPDATED ON: October 31, 2013
To avoid version control problems, enter the date of most recent revision to the reference sheet.

Source: Integrating Mobile Solutions into Development Projects: A Handbook for USAID Staff, FHI360 and Open Revolution, p82-83 (draft as of Jan 2013)

KEY RESOURCES

USAID
FROM THE AMERICAN PEOPLE

KEY RESOURCES

PART 1

What are the key terms used in the ecosystem?

Alliance for Financial Inclusion, Mobile Financial Services: Basic Terminology

Alliance for Financial Inclusion, Mobile Financial Services: Indicators for Measuring Access and Usage

FinMark Trust, Glossary

GSMA, Glossary

USAID, FS Series #9: Enabling Mobile Money Interventions

World Bank, Protecting Mobile Money against Financial Crimes

Cash Learning Partnership (CaLP), Glossary of Cash Transfer Programming Terms

Center for Financial Inclusion, Financial Inclusion Glossary

What are the basic, functional capabilities that digital financial services allow?

Airtel Money Uganda, How it Works

bKash, Products and Services

GSMA, State of the Industry 2013

M-Pesa, Sample Video

Abt Associates, Mobile Money for Health

Tigo, Cross-Border Mobile Money Transfers

How does mobile money work? What do I need in order to use it?

GSMA, Mobile for Development Intelligence

GSMA, Introducing a new publication – Platforms for Successful Mobile Money Services

Bankable Frontier Associates, Managing the Risk of Mobile Banking Technologies

Smart Communications, Smart Padala Tutorial

Smart Communications, Smart Padala Simulator

What types of financial services do digital financial services make possible?

CGAP, The "EasyPaisa" Journey from OTC to Wallets in Pakistan

CGAP, Social Cash Transfers and Financial Inclusion: Evidence from Four Countries

Collins et al., Portfolios of the Poor

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