

How to do

Digital financial services for smallholder households

Inclusive rural financial services



How To Do Notes are prepared by the IFAD **Policy and Technical Advisory Division** and provide practical suggestions and guidelines for country programme managers, project design teams and implementing partners to help them design and implement programmes and projects.

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The **How To Do Notes** are "living" documents and will be updated periodically based on new experiences and feedback. If you have any comments or suggestions, please contact the originators.

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Contents

List of acronyms	ii
Introduction.....	1
Key issues	2
Contextual factors	2
Challenges	3
Lessons learned.....	5
Guidance on design and implementation.....	7
Preconditions for IFAD's engagement and support	7
Guidance on design	10
Guidance on implementation	13
Scalability	16
Additional tools.....	18
Frequently asked questions	19
Glossary	20
Sources	21
Bibliography	21

List of acronyms

AML/CFT	anti-money laundering/combating the financing of terrorism
ATM	automated teller machine
BTCA	Better Than Cash Alliance
BTL	below-the-line
CGAP	Consultative Group to Assist the Poor
CPM	country programme manager
DFS	digital financial service
FATF	Financial Action Task Force
FFR	Financing Facility for Remittances (IFAD)
FSP	financial service provider
G2P	government-to-person
GPFI	Global Partnership for Financial Inclusion
HCD	human-centred design
IVR	interactive voice response
KYC	know your customer
MFI	microfinance institution
MFS	mobile financial service
MNO	mobile network operator
OTC	over-the-counter
PIN	personal identification number
POS	point-of-sale
SIM	subscriber identification module
SMS	short messaging service
USAID	United States Agency for International Development
VAS	value added service

Introduction

Advances in digital technology and telecommunications are presenting new financial inclusion opportunities for smallholder farmers in rural areas.¹ A growing number of payments, savings, credit and insurance products can be delivered digitally to address the financial needs of smallholder households. Smallholders can especially benefit from mobile phone platforms, which offer immediate, safe access to government subsidies, cash transfers and remittances. The messaging features of mobile phones can complement digital financial services (DFSs) by offering timely information on weather conditions, farming tips, market prices and potential buyers, which can help increase farming yields and profitability.

Although many DFSs in developing countries target the broader market of “unbanked” persons, some private- and public-sector actors are trying to adapt successful examples of DFS and to leverage digital platforms to meet the specific financial needs of smallholder farmers and their families.

With digital innovations growing quite rapidly, regulators are trying to keep up by issuing new regulatory frameworks or adapting existing ones, while policymakers and financial inclusion advocates are raising awareness of major consumer risks brought on by the new services. At the same time, industry stakeholders recognize that excessive regulation can stymie innovation and limit the expansion of services. While regulations apply broadly to DFS to the extent that they promote wide access, smallholder farmers can be impacted. For instance, regulations governing who is eligible to become an agent can affect the supply of agent networks in rural areas where smallholders reside.

The purpose of this How To Do Note is to provide guidance to IFAD’s country programme managers (CPMs) and partners on the design and implementation of DFSs that target smallholder households.² The proposed guidelines intend to foster a culture of innovation that leverages new and emerging technologies to address smallholder-specific financial needs, while offering sufficient safeguards for farmers and their families. While the private sector is driving much of the innovation, IFAD can play a key role in helping both private and public stakeholders understand the financial lives of smallholder farmers, building a business case for offering services that meet their needs, and financing the fundamental infrastructure needed to develop DFSs in rural areas.



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IFAD/The Gambia - Participatory Integrated-Watershed Management Project (PIWAMP)

¹ Although not all smallholders live in rural areas, and not all rural residents are smallholders, in this toolkit the focus is entirely on smallholders living in rural areas. Thus, references to rural areas imply a focus on rural smallholders.

² Much of the guidance applies to design and implementation of all DFSs, as there are basic elements that need to be in place for any type of financial service delivered digitally, but specific implications for smallholder households are highlighted.

Key issues

Contextual factors

Smallholder families have numerous financial needs, which vary from household-level needs (purchase of food, shelter, children's education) to ones specific to agriculture (purchase of farming inputs and assets). Subsistence farmers have a greater need for mechanisms to save money safely and financial tools to improve their farming and crop storage, whereas more commercially-oriented smallholders need access to a greater variety of financial tools, including flexible credit products (Anderson and Ahmed forthcoming). Smallholder farmers struggle in meeting these needs, as banks and other financial institutions have a limited presence in rural communities and financial products are seldom designed to address the specific characteristics of small farms.

Serving rural areas can be expensive for financial service providers (FSPs), owing to the low levels of economic activity and poor infrastructure. FSPs might find it difficult to establish a business case for offering smallholder-specific products because agriculture-based income can be infrequent, erratic and subject to a number of farming risks, such as drought, flooding and pests (CGAP 2003). FSPs might also fail to understand the financial flows of smallholder farmers, who often supplement their income with non-agricultural activities (Anderson and Ahmed forthcoming). Without access to appropriate financial services, smallholder farmers must conduct their transactions entirely in cash and are unable to save money safely, leaving them exposed to risks, such as loss or theft, and unable to invest in their farms.

Technology can help bridge that physical divide by extending financial services to rural areas without the need of a bank branch, as digital platforms are more cost-effective. Typical features of DFS can address many of the “pain points”³ that FSPs face in meeting the financial needs of smallholder farmers, such as managing transactions of small amounts of money and extending services to remote communities.

There is a general bifurcation in platforms of DFS: mobile and non-mobile (i.e. e-vouchers, debit cards), with most innovations in developing countries taking place through mobile platforms. Mobile financial services (MFSs) have become more widespread because they leverage the global growth in mobile phones – half the world's population now has a mobile phone subscription (GSMA 2015a). The rapid spread of MFSs is also attributable to a lack of other options for keeping and transacting money safely in developing countries. Many of the smallholder-specific DFSs also leverage mobile platforms.

Distribution mechanisms for DFS can take various forms, such as bank or non-bank agents at which consumers conduct cash-in and cash-out transactions, merchants that accept digital payment (via mobile or point-of-sale [POS]) for the purchase of goods or services, or automated teller machines (ATMs) for withdrawing money. Agents in the agriculture sector might include suppliers of farming inputs and buyers of crops that can accept or make digital payments.

Opportunities

DFS offer many opportunities to expand financial inclusion in rural areas and benefit smallholder farmers. In some rural development areas, the greatest opportunities through DFS include:

- *Rural reach.* Digital technologies, especially via mobile phones, can reach agricultural communities where traditional FSPs have no presence. In Kenya, for instance, 54 per cent of rural residents use mobile FSPs, while only 21 per cent use banks (FSD Kenya 2013).
- *Resilience and consumption smoothing.* Smallholder farmers can safely save small amounts of money at any time, either in their mobile money accounts or in dedicated savings accounts that are accessible via a mobile phone. Farmers can also receive money transfers from family or friends more rapidly. These mechanisms improve the capacity of smallholder households to weather adverse farming conditions or unexpected financial emergencies (Jack and Suri 2014).

³ Originally a term used in acupuncture, pain points is used by business consultants to describe the points at which a business or customer feels “pain”, i.e. a problem, real or perceived.

As a result of expedient access to savings and/or remittances, households could be better equipped to maintain their consumption of basic goods during difficult financial times.

- *Advance planning.* With easier access to savings, either accumulated in a mobile money account or linked to a savings account, smallholder farmers can prepare for annual agricultural expenses, such as quality fertilizer and seed, and household expenses, such as school fees. Goal-based digital savings can drive farmers to save more frequently. Moreover, the messaging features of mobile phones can also serve to motivate farmers to reach their financial goals. If enough savings are accumulated, smallholder farmers might not need to borrow to buy agricultural inputs for the new planting season or to pay for their children's school fees.
- *More expedient access to safety nets.* Digital platforms open doors to improved targeting and more expedient delivery of government support programmes (such as agricultural subsidies and social cash transfers). Mobile phones can increase access to life and health insurance products, especially by bundling insurance with other products. Mobile platforms greatly reduce costs while simultaneously offering scalability, two major elements needed if insurance products are to be successful.
- *Improved farming.* Agricultural insurance is one of the most notable services arising from the new technology platforms. One example is weather index insurance, which pays farmers automatically into a mobile money account. With insurance payments, farmers are not forced to sell assets when drought or pests destroy their crops and are thus better positioned to invest in their farms during more prosperous times, instead of having to replace lost assets. Moreover, complementary information received as short messaging service (SMS) texts or interactive voice response (IVR) messages on weather forecasts and current market prices can further increase yields and profitability.
- *Better access to value chains.* For smallholder farmers with surplus crops but limited access to markets, greater access to financing (based on digitally-based credit scoring mechanisms) could help them invest in developing the product quality and quantity desired by buyers. Digital platforms can also facilitate access to value chains by providing market linkages between farmers and potential buyers.

Challenges

While the opportunities for DFS are numerous, expansion and uptake of services can be constrained by a number of challenges:⁴

- *Limited financial product choices for smallholder farmers.* The majority of digital financial products, such as mobile credit and savings, offer terms that are not suitable to agricultural incomes (e.g. 30-day loans). Although the number of smallholder-specific products is growing, they are still few in number and available in just a few countries. Lack of appropriate product choices is more pronounced for subsistence smallholder farmers, who engage primarily in in-kind savings and payments and who need financial tools to help them make a "double jump" from in-kind to cash and from cash to digital (Anderson and Ahmed forthcoming).
- *Low quantity and quality of agent networks.* Smallholder access to both mobile and non-mobile financial services depends largely on agent networks in rural areas. Even though establishing agents is less onerous than opening a bank branch, rural areas often do not have enough agent coverage. This can pose a major problem for farmers, who might need to access funds for emergencies or unexpected expenses. A related challenge is lack of liquidity among rural agents, largely as a result of being far from a bank where they can reload funds. Beyond the quantity of agents, the poor quality of the agents available can be a major constraint on uptake of DFS by

⁴ Many of the challenges apply to DFSs in general, not just smallholder-specific DFSs. As smallholders might be able to benefit from a variety of DFSs, this note addresses all relevant challenges that can impact delivery and uptake of all types of DFS, highlighting specific implications for smallholder farmers.

smallholder households, which might have limited experience and knowledge of financial products and digital tools, and might need help from agents in carrying out some of their transactions. Consumers have complained of poor customer service, some even reporting cases of fraud. These instances can negatively impact the reputation of the agent and the service provider (McKee, Kaffenberger and Zimmerman 2015). If smallholder farmers cannot reliably access their digital funds or trust agents for cash-in/cash-out transactions, they might not use the services at all.

- *Inadequate infrastructure.* The availability and reliability of DFSs depend on the robustness of the data networks in place in rural areas. Mobile connectivity is greatly expanding, even in remote areas, but there are still many countries and rural areas with limited or no connectivity. A top concern of consumers in a number of countries is the inability to conduct a mobile money transaction due to network downtime (McKee, Kaffenberger and Zimmerman 2015). Much infrastructure development is driven by private actors, especially mobile network operators (MNOs), which might not see the value proposition for investing in more robust infrastructure in agricultural communities.
- *Low consumer capacity.* There is a growing awareness that consumers need to develop three dimensions of literacy to use DFS effectively: reading literacy (essential even to navigate through a mobile money menu), financial literacy (understanding how formal financial products function, especially more complex products such as credit and insurance) and digital literacy (understanding basic protocols, including how to safely protect their personal information, such as a personal identification number [PIN]). Smallholder farmers, especially older generations, are likely to have greater difficulty adopting new digital platforms precisely because they might have lower levels of basic literacy, limited or no exposure to financial services and lack of experience with new technology.
- *Restrictive know-your-customer (KYC) requirements.* Some of the most significant obstacles to financial inclusion are KYC requirements, which were established as part of international standards to combat money laundering and the financing of terrorism (AML/CFT). Unfortunately, these standards have had the effect of limiting access to formal financial services for poor people, who might not have the necessary forms of identification or the money to obtain them. For smallholder farmers, the costs of obtaining proper identification are higher if they must travel to a town or city for documentation.
- *Insufficient consumer protection measures.* Smallholder farmers have few available recourse mechanisms for reporting transaction problems or fraud (Box 1). Consumers might resort to agents who might not have adequate training to resolve the issue or might be the source of the problem. Rural residents can be especially affected if their only recourse is traveling to a city to file a formal complaint with the service provider or agent network manager.

Box 1. DFS consumer risks

An analysis by the Consultative Group to Assist the Poor (CGAP) identified seven main areas of consumer risk related to DFS:

- inability to transact due to network/service downtime
- insufficient agent liquidity or float, which also affects ability to transact
- user interfaces that many find complex and confusing
- poor consumer recourse
- non-transparent fees and other terms
- fraud that targets consumers
- inadequate data privacy and protection.

Source: McKee, Kaffenberger and Zimmerman 2015

- *Limiting regulatory frameworks.* Innovations in DFS, especially mobile services, are so recent that some countries have not yet determined how to regulate the emerging services. Existing regulations in many countries already limit core financial services, such as savings or credit, to regulated financial institutions. Similarly, international remittances cannot easily take advantage of mobile networks because non-bank entities are not allowed to provide cross-border transfer services (Dalberg 2012). In some countries, regulators have passed regulations taking a more cautious approach – for example, prohibiting non-banks, such as MNOs, from offering mobile money services (GSMA 2013). The lack of enabling regulations limits the spread of mobile money services to about half the countries in the world (GSMA 2014b).
- *Lack of coordination among stakeholders.* The shift towards a “cash-lite” economy (where digital payments are widely used by people for everyday purchases) is happening gradually and organically in many parts of the world. But without a coordinated effort by stakeholders, the transition could be prolonged and inefficient, thereby delaying benefits to consumers (BFA 2015). The need for coordination is especially vital in the development of platforms and services that can address the specific needs of smallholder farmers.

Lessons learned

The digital financial industry is still in its infancy, so lessons learned are focused primarily on operational aspects, drawing on pilot phases or initial years of implementation.⁵ They draw on smallholder-specific DFSs as well as on other types of DFS that smallholders might use, especially mobile money.

- *Smallholders’ varying financial needs.* While there are a number of innovative smallholder-specific DFS, not all smallholders can benefit equally from all products. The more involved farmers are in commercial value chains, the greater their need for a variety of financial products, especially related to agricultural production. But subsistence farmers not involved in value chains would need primarily digital mechanisms to help them save (Christen and Anderson 2013; Anderson and Ahmed forthcoming).
- *Late adoption of technology and slow scalability among rural residents.* It is very likely that adoption of technologies not specifically designed for smallholder farmers will take place in urban areas before they are taken up in rural communities. That has been the experience of M-PESA and M-Shwari in Kenya, where the first users tended to be urban, male, above the poverty line and under 35 years of age, though that trend has subsided over time, with a greater number of rural residents taking up mobile technology (Cook and McKay 2015). However, reaching scale is significantly slower in countries with a large proportion of rural residents (GSMA 2015b).
- *Need for iterative experimentation.* Some DFSs for smallholder farmers have gone through numerous iterations where features are constantly fine-tuned as service providers learn about consumer preferences. While FSPs commonly run pilot tests of their products before offering them more broadly, DFSs require extensive infrastructure and networks to be effective. As a result, traditional pilot tests might not always be feasible, so providers must build trial and error into their business plans and financial projections. This is particularly the case when designing DFS for smallholders, as there is still limited knowledge of their needs and preferences. For instance, NWK Agri Services (formerly Dunavant), a large cotton buyer in Zambia, first offered mobile money payments to its farmers. But limited cell phone penetration and difficulty in setting up an agent network led them to issue e-vouchers. The e-voucher provided security and efficiency but farmers found them too restrictive, as they could only be used at certain retailers. As a result, NWK Agri Services is now exploring other technologies, including a debit card (Babcock 2015).

⁵ This section synthesizes the more comprehensive review of lessons learned in the complementary IFAD publication *Digital Financial Services for Smallholder Households – Lessons Learned*.

- *Few alternatives to cash.* While half the mobile money consumers are keeping value in their mobile money accounts (GSMA 2014b), likely as a temporary savings mechanism, many mobile money users continue to cash out the entire amounts they receive, losing out on the security that the digital medium provides. This might result from not having access to enough merchants where the digital funds can be used or from a concern that agents might not have enough liquidity when money is needed. For smallholder farmers who receive lump sums from the sale of crops or social cash transfers, not having adequate options for using their digital funds would force them to withdraw the entire amounts, thereby leaving them exposed to the risk of theft or loss, or to the temptation to spend their savings.
- *Limited benefits of over-the-counter (OTC) transactions.* Some 10 per cent of mobile money services are delivered OTC with the help of an agent (GSMA 2014b). Although OTC technically uses a digital platform for the transmittal of money, consumers are not directly engaged in that transaction, as they give money to an agent, which then transmits it to another agent. The concern about OTC among financial inclusion advocates is that it neither provides a mechanism to store value, as mobile wallets do, nor offers users a ramp to enter the financial system and develop financial capability. For smallholder farmers, mechanisms to store value are greatly needed, so OTC service would not satisfy one of their major financial needs.

There are several reasons why consumers might opt for an OTC transaction, including lack of: their own mobile phone; a subscriber identification module (SIM) card; a personal identification; or an understanding of how to conduct the transaction on their own (McKee, Kaffenberger and Zimmerman 2015). Many smallholder farmers would likely fit this profile.

- *Building trust with below-the-line (BTL) marketing.* One of the most significant challenges in promoting DFS is consumer lack of trust in or awareness of the services, especially in rural areas where smallholder farmers are less likely to have experience with formal financial and technology tools. As a result, above-the-line marketing approaches, such as radio or flyers, might raise awareness of the products but might not be enough to convince consumers to try the new technologies. Uptake of DFS by smallholder farmers might require BTL marketing strategies, which are geared towards niche markets and are based on personal means of communication, such as a “word-of-mouth” approach. For instance, EcoCash, a mobile money service in Zimbabwe associated with the MNO Econet Wireless, registered three quarters of its users through a group of promoters they called “ambassadors” (Levin n.d.).
- *Bundling value added services (VASs).* For many years, the financial service sector has been integrating non-financial services into its portfolio in an effort to address the diverse needs of clients. Similarly to DFS, there is growing recognition that the mobile platform is ideal for communicating useful, complementary information to users. This is especially the case in agriculture, where information on weather and market prices can positively impact a farmer’s yields and income. Agricultural VASs are growing, with 98 currently active (GSMA 2015c).
- *Need for a digital ecosystem for smallholders.* The development of a digital ecosystem, in which a variety of institutions and actors in agriculture are interconnected digitally, would facilitate access to and use of DFS by smallholders, primarily those involved in value chains. Some digital payment innovations, such as the Zoon e-vouchers in Zambia, faced difficulties in uptake precisely because not all merchants or services were accepting digital payments (MEDA 2013). However, subsistence farmers might benefit less from such an ecosystem if they rely primarily on in-kind savings and payments.

Guidance on design and implementation

Preconditions for IFAD's engagement and support

Although innovations in technology are growing at a rapid pace, not all countries or regions are at the same stage of readiness for successful deployment of digital financial platforms. Prior to supporting a project, IFAD's project design teams should collaborate with stakeholders, including potential providers of DFS such as MNOs and FSPs, to evaluate the overall landscape for DFS (Figure 1). This assessment should inform IFAD and its partners about demand and supply, as well as the institutional, regulatory and business environments. A thorough analysis of these multiple dimensions will ensure an appropriate match between demand and supply under the right conditions.

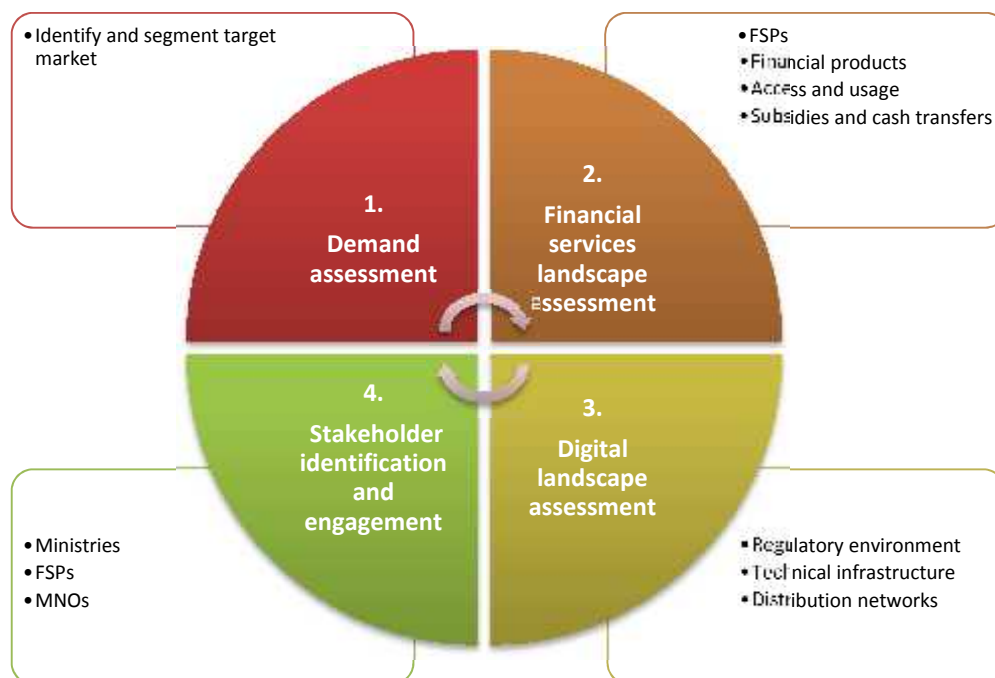


Figure 1. Preconditions for IFAD's engagement and support

Step 1. Demand assessment: Identify and segment the target market

The financial needs of smallholders can be quite varied. Identifying and understanding the specific characteristics of the target market is essential in ensuring that products are successful in uptake and use. Segmenting smallholders by the types of crops they grow and their involvement in agricultural value chains can help define the financial mechanisms best suited to meet their financial needs (Christen and Anderson 2013).

The assessment should also determine the level of smallholder literacy, including functional (reading, writing), financial (knowledge of and experience with financial services) and digital (knowledge of and experience with digital technologies). This information can help pinpoint the types of digital tools that would be most easily taken up and the type of consumer education or technical support that farmers might need to fully use the services.

Calculating the potential size of the market is also a necessary exercise for project planning, as well as for developing a business case. A combination of field-based market research – consisting of focus groups and in-depth interviews with smallholder farmers and extension agents – and a review of public or private surveys and other statistics can shed light on the characteristics and size of the target market (see the section on Additional tools).

Step 2. Financial services landscape assessment

Evaluating the coverage of formal and informal financial services in rural areas is critical in identifying gaps faced by smallholder farmers. These gaps can then inform the direction and prioritization of IFAD's support and engagement, as well as the role of DFS providers. Assessment should include:

- *Availability of FSPs in rural areas.* Although banks tend to be absent from rural communities, IFAD's CPMs should identify financial institutions that see the value proposition of serving smallholder farmers. In the case of financial cooperatives or microfinance institutions (MFIs) that already have some presence in rural areas, these might recognize the potential for lowering costs, increasing scale or diversifying products through the use of digital platforms. In Madagascar, Bank of Africa – which has roots in agricultural development and has designated a business line specifically tailored for smallholder farmers – partnered with Airtel to offer crop payments to cashew farmers through a mobile money account and a linked bank account (Riquet 2013).
- *Array of financial products for smallholders.* Identifying products already available to smallholder farmers can indicate how their delivery might be enhanced through digital platforms. For example, loan disbursements and loan repayments can be facilitated through mobile money accounts. Similarly, products that are not currently available could become more viable through digital services. This is especially the case for microinsurance products, where small, affordable premiums can be paid through mobile money accounts. For example, BIMA, a mobile insurance intermediary offering a platform for life, accident and health insurance, has 18 million subscribers, 86 per cent of whom had never had insurance before (BIMA n.d.).
- *Access and use of financial services.* Identifying patterns of and barriers to access and use can guide the approach to DFS. For instance, if lenders are reluctant to extend credit to farmers with no credit histories, they might be able to tap into new algorithms based on mobile money and airtime top-up transactions in order to assess a person's money flow and loan repayment capacity. Or, if savings accounts become dormant, some features of digital platforms – such as publicizing the option of automatic deposits from a mobile money account or an SMS text reminder – could be used to motivate more frequent deposits.
- *Availability of subsidies and social cash transfers.* As many smallholder families are very poor, it is important to determine the extent to which they receive public financial support, either in the form of agricultural subsidies or as social cash transfers. These government-to-person (G2P) payments could be delivered more efficiently through electronic means. Digital services could also enable recipients to save some of their funds for emergencies or financially difficult times.

Step 3. Digital landscape assessment

This mapping task should include an assessment of the regulatory environment, the available technical architecture and the potential distribution network in rural areas. The extent of regulations governing DFS can greatly shape their viability and innovation; available technical platforms can determine their reach and reliability; and the supply and quality of distribution “touch points” can affect their scalability. IFAD will need to collaborate closely with regulators, ministries of telecommunications, MNOs and FSPs to obtain the necessary information to conduct this assessment.

Some key points to consider:

- *Regulatory environment.* Policies and regulations that govern the offer of financial services can either limit or enhance innovation in digital services. Key regulations that should be examined include:⁶
 - o *Issuance of digital money.* In many countries, non-bank entities are not allowed to offer mobile money solutions, so MNOs must develop partnerships with banks or other FSPs to offer MFSs. For example, regulations in Pakistan prevent non-banks from offering mobile money services. As a result, the MNO Telenor Pakistan acquired a 51 per cent ownership stake in Tameer Bank, an MFI, in order to offer EasyPaisa, a mobile money service (McCarty and Bejaerum n.d.). Conversely, in Kenya, for example, there is now an enabling environment allowing non-banks, particularly MNOs, to deploy mobile money products. It is worth noting that regulators in Kenya took a “test and learn” approach, allowing M-PESA to be offered in 2007, and issued more clearly defined regulations after it had learned more about the implications of mobile money services. A solid understanding of the local regulatory environment will inform project partners as to what options are available and whether some policy changes might be required to offer DFS successfully.
 - o *AML/CFT.* Recognizing that KYC requirements have excluded many poor people, the Financial Action Task Force (FATF) has offered clarifications and recommendations enabling countries to implement standards through a risk-based approach.⁷ Countries are responsible for interpreting and applying the AML/CFT standards through national regulations. For FSPs, this new approach means that some requirements can be relaxed for low-risk products with low maximum transaction amounts and account balances (Lyman and Noor 2014). IFAD and its partners should diagnose the interpretation of these standards at the local level – to assess whether there is room for more flexible requirements that can better accommodate the characteristics of smallholder farmers.
 - o *Agents.* Most forms of DFS rely on agents, especially to conduct cash-in/cash-out transactions. Regulations governing who can be an agent and what financial services they can offer can determine the reach of DFS in agricultural communities. Regulations that are too strict can inhibit the availability of agents, whereas regulations that are too lax can be subject to a number of agent-related risks (such as fraud and poor customer service). There might also be regulatory frameworks and supervision of other key aspects of agents, such as: types of fees and commissions allowed; ability to process transactions on behalf of multiple mobile money providers; availability and capacity of agent networks; and bank liability for agent actions (Tarazi and Breloff 2011).
 - o *Consumer protection.* There is widespread awareness of the need for strong consumer protection frameworks for DFS, but the development and implementation of such frameworks is just emerging. As a result, countries may have few, if any, protection measures. Some key areas to examine include: training and oversight of agents; recourse mechanisms for complaints; transparency in pricing; data privacy; and security of funds mechanisms, among others (Arenaza 2014).
- *Technical infrastructure.* DFS can only be as effective as the technology permits. Given the prominent role of mobile in the offer of DFS, an assessment of the available technical architecture should focus on mobile infrastructure, such as mobile network coverage and mobile phone penetration, but should also include the cross-cutting components necessary for mobile, POS and ATM transactions, such as data network reliability.

⁶ This section draws largely on CGAP (2014).

⁷ FATF is an intergovernmental body in charge of setting standards and promoting implementation of policies to combat money laundering and the financing of terrorism.

- o *Mobile network coverage.* Mapping out actual network coverage is essential, as is determining the main reasons for lack of coverage (e.g. remote locations and difficult terrain, limited access to the electrical grid and/or low profitability potential), as these can influence the dissemination strategy for DFS. For instance, India had a limited supply of cellular towers in rural areas because of difficult terrain, low population densities and low incomes, which rendered rural coverage uneconomical for MNOs, but India's Department of Telecommunications (within the Ministry of Communications and Information Technology) approved network infrastructure-sharing, including towers, to expand this coverage (GSMA 2015d).
- o *Mobile phone penetration.* Although mobile phones seem ubiquitous, there are still many people who do not have one. It is quite common for poor people to share mobile phones or even SIM cards. Assessing the level of ownership of individual mobile phones and/or subscriptions among smallholder farmers can establish the potential for DFS. For instance, low levels of mobile phone or SIM ownership could limit options to OTC transactions.
- o *Data/mobile network reliability.* The reliability of data and/or mobile network coverage can affect not only the ability to conduct transactions but also the perception farmers have of these new technologies. Networks must be consistent and reliable to build people's trust in digital transactions, especially those who have limited experience in advanced technology (McKee, Kaffenberger and Zimmerman 2015). Thus, assessment should include an evaluation of the robustness of available digital systems.
- *Distribution networks.* In rural areas, limited availability and liquidity of agents represent key operational barriers to the scalability of DFS for smallholder farmers. Compiling a database of the financial touch points for DFS and geo-mapping their coverage in target rural areas will inform the DFS distribution and growth strategy. In target areas lacking sufficient distribution channels, projects will need to identify merchants or other types of pay points that can function as agents. Areas with insufficient distribution points will need to make substantial investment and allow for a longer time frame to acquire and build a strong agent network (BTCA 2015).

Step 4. Stakeholder identification and engagement

Supporting development of a wide array of DFSs for smallholder farmers will require the involvement and active participation of major stakeholders, such as FSPs, MNOs, ministries of agriculture, government regulators of financial services, input suppliers and commodity buyers. Bringing these key entities together is essential in developing a digital ecosystem that responds appropriately to the financial needs of smallholder farmers. IFAD might only actively partner with a few of those entities, but consulting all of them at various points during the design and implementation phases might avert conflicts or inefficiencies.

Guidance on design

IFAD's CPMs and project partners, such as FSPs, MNOs and government agencies,⁸ should collaborate in designing services that use a "human-centred design" approach. Human-centred design (HCD) offers an opportunity to learn directly with smallholder families in their own environment.⁹ The design process might be led by external DFS experts in close collaboration with IFAD's country teams and stakeholders, but should include continuous participation by the potential users. HCD actively engages users to find solutions for their needs. The process could involve several quick iterations until the features of the products are fine-tuned to respond appropriately to the needs of the target users.¹⁰ Given the complexity of designing technology solutions, the design process might consider several options simultaneously.

⁸ Government entities that might be involved in the design process could include agriculture ministries seeking digital platforms to deliver agricultural subsidies to smallholders or social ministries wanting more efficient mechanisms to distribute social cash transfers.

⁹ The human-centred design approach is also known as the "user-centred design" approach.

¹⁰ Mattern and Tarazi (2015) refer to this process as "rapid prototyping".

In designing DFS for smallholder farmers, specific dimensions should be considered (Box 2):

- *Smallholder households have diverse financial needs.* Smallholder farmers and their households have a variety of financial needs, which grow with their engagement in commercial agriculture (Figure 2). At one end of the spectrum are subsistence farmers, who consume all they produce. Subsistence farmers and families might need basic and easily accessible financial products to help them pay and save for basic household expenses (e.g. payment services or savings for school fees or medicine) and agricultural expenses (e.g. savings or layaway products to buy fertilizer and seed for the planting season). They also need products to manage farming production risks (e.g. insurance to protect against pests and bad weather) and tools to help them improve their storage mechanisms (e.g. savings to acquire quality containers). At the opposite end are commercial smallholders, who sell crops along value chains and need financial tools for the purchase of agricultural inputs and for managing market risks (e.g. insurance to protect against fluctuations in input and crop prices). Commercial smallholder farmers might need a greater array of products to help them invest in their farms and grow their productive capacity (e.g. credit to buy equipment) (Anderson and Ahmed forthcoming).



Figure 2. Smallholders' diverse financial needs

- *Smallholder households represent economic units.* Smallholder farmers and their families have a range of financial needs at both the household and farming level. DFSs that respond to these various needs are more likely to be successfully scaled up. For instance, savings products should enable farmers to save for agricultural inputs and major family needs, such as school fees.
- *Smallholder income and expenses are seasonal.* DFSs need to have flexible mechanisms that allow smallholder farmers to tap into financial resources when needed (e.g. for the planting season), while helping them save when there is a financial surplus available (e.g. after a harvest). This might require both short-term savings (such as accumulated balances in mobile money accounts) and long-term savings (such as layaway mechanisms or goal-based savings accounts). The types of crops will also dictate when and how often farmers will need access to financial products. For example, annual cash crops such as maize and cotton will consist of larger, but less frequent payments from buyers (which could be done through direct payment to a savings account), whereas dairy and animal by-products such as milk and eggs will rely on smaller and more frequent payments (which could be carried out easily and quickly through a mobile money account).
- *Smallholders need ramps to financial inclusion.* Smallholder farmers are likely to be unbanked, so a DFS such as a mobile money account represents their first opportunity to access a formal financial service. But it is important to recognize that access to DFS should not be limited to mobile money services. While these services are becoming more ubiquitous and are having a positive impact on the lives of the unbanked, they do not meet all financial needs of farmers. Digital money should be leveraged to offer other financial products, especially savings accounts, that can address the various financial challenges faced by smallholder families. For example, a mobile money service should be linked to a bank savings account, allowing farmers to save larger sums of money. With the development of credit algorithms, these savings transactions could also be used to build a credit history for previously unbanked farmers.

Box 2. CGAP and human-centred design

CGAP employed HCD in four countries, focusing on DFS to meet the financial needs of smallholder families. Through trial and error, CGAP learned the following principles specific to designing DFS for smallholder families:

Design around smallholders' needs and aspirations

- Support a full range of household needs and aspirations.
- Smallholders want to plan ahead, but short-term priorities make saving for long-term aspirations difficult.
- Smallholders value speed and ease of access to financial services.
- They also value timely and responsive agricultural information that can serve as a gateway to DFS.

Design to drive adoption

- Overcome mistrust of financial services.
- Maintain human touch points in digital services to ease smallholders into the use of new financial services and technologies.
- Appeal to smallholder aspirations to position financial services as a means towards achieving goals.
- Minimize the risk of trying DFS.

Design for continuous engagement

- Make products accessible to smallholders, both physically and financially.
- Offer incentives, not penalties.
- Build in ongoing support.

Design for customer growth

- Offer a portfolio, not only individual products.
- Build pathways, not cycles.

Source: Mattern and Tarazi 2015

The assessment of the target market, together with the landscape analysis, should narrow down the scope of DFS for further exploration by IFAD and major partners. However, it is worth noting that there is no generic design for DFS. There is also no single product that can meet smallholders' diverse needs. For those reasons, the flexibility of the HCD process can be especially effective, as it can more readily adjust if a particular product design is not working out.

Guidance on implementation

While some implementation efforts needed in offering DFS, such as building of infrastructure, are beyond the parameters of IFAD, CPMs and project management units, respectively, can play an active facilitation role by bringing together key players and advocating strategies that make sense given smallholder farmers' financial needs. IFAD also has a major role to play in financing some elements necessary to the delivery of DFS and in providing sufficient consumer protection measures for smallholder households.

Key roles for IFAD in implementation of DFS can include:

- *Building a business case.* IFAD's staff can play a critical role in helping DFS providers, mainly MNOs and FSPs, understand the financial particularities of smallholder farmers and their families, especially young rural people, as well as the diversity of financial needs among different farmers. This information can be used to develop a business case for serving smallholder households. The business case would demonstrate that offering tailored or existing products to meet the agricultural and household needs of smallholders can have a commercial benefit for the service provider. For instance, smallholder farmers, especially older farmers, might be slower in adopting new services, but they have the potential to become loyal customers once they adopt a brand or service. User loyalty is highly valued by businesses because of the high cost of customer acquisition and retention. Young people, on the other hand, while less loyal to brands, represent a valuable market for businesses because they tend to take up new technology at faster rates (Pew Research Center 2014). Given the ageing of the farming population, the use of technology in agriculture has the potential to make farming more attractive and profitable for young people (Nkonu 2013), thereby increasing the business viability of serving these young farmers. The business case for serving commercial smallholders might be stronger for FSPs owing to the potential profitability of agricultural credit products. The business case for serving subsistence smallholders might be stronger for MNOs or other DFS providers offering mobile money services, which are designed to profit from small but frequent transactions.
- *Encouraging BTL marketing strategies.* Some of the most successful DFS initiatives have discovered that building trust among smallholder farmers and their families, with little or no experience with digital platforms, requires a personal connection. BTL marketing strategies for smallholder farmers could consist in community representatives, especially literate youth, traveling to agricultural communities to provide information and demonstrations of digital financial products. Agents can also play a major role in building trust among clients by taking the time to show new clients how to use digital products. BTL marketing might be required for all types of digital products, especially for more complex products such as layaway, credit and insurance. In addition, providers will need to expend more effort promoting products if the digital platform is not well known in the target population. This can be the case for mobile money services in places with limited mobile phone penetration. IFAD could finance some BTL activities that reach out to smallholders in very remote areas.
- *Providing financial and technical support to consumer education initiatives.* Educating smallholder farmers on the benefits of digital services, while also informing them of their rights and responsibilities as consumers, is a fundamental element in the uptake of DFS. IFAD can work with both private and public stakeholders in designing educational strategies and financing their delivery. Consumer education might need to be as basic as showing smallholders how to remember a PIN and keep it safe, how to safely use an ATM and how to use mobile money services without relying on an OTC transaction. This education should be concise and relevant to smallholders, as evidence shows that simple, key messages can be effective (Drexler, Fischer and Schoar 2014). DFS providers can offer such education in a variety of formats, including: as SMS or IVR messages through mobile phones; as small-group training or workshops that leverage existing group meetings, such as village savings and loan associations (VSLAs);¹¹ as radio or TV

¹¹ VSLAs have regular meetings. By offering education as part of these meetings, providers reduce the costs of bringing people together to attend an educational workshop.

announcements; or as information provided by agents when smallholders conduct transactions. Similarly to the marketing strategy for DFS, education is especially critical for more complex products such as credit and insurance.

- *Identifying systems and plans to minimize technological disruptions.* All types of DFS can be affected when data and mobile networks are down. While providers of DFS carry major responsibility for ensuring that their platforms are reliable, IFAD can engage service providers and other key stakeholders to identify strategies for minimizing the risk of network downtime in agricultural communities. This could take the form of regular monitoring, maintenance and testing of network systems, as well as development of contingency plans (McKee, Kaffenberger and Zimmerman 2015). In addition, service providers need to invest in new or updated technology that can offer greater reliability during digital transactions. As DFSs rely on electricity, ministries of energy also need to ensure that power grids are dependable in rural areas. IFAD can also engage renewable energy companies to make solar phone chargers more readily available to smallholder farmers who lack reliable electricity.
- *Advocating expansion of network coverage in rural areas.* As all types of digital innovation are leveraging mobile phone technology, mobile network coverage is a key factor in the expansion of DFS to smallholders. While mobile network coverage has greatly expanded worldwide, 10 per cent of the population, approximately 700 million people, still lack access to basic voice and text services – mostly rural, low-income people in Asia and sub-Saharan Africa (GSMA 2015d). IFAD can facilitate collaboration between network providers and government ministries to find coverage solutions. Potential solutions for increasing network coverage sustainably include tower- and/or network-sharing and renewable energy (GSMA 2010).
- *Participating in the development of judicious regulations.* The case of M-PESA has demonstrated the degree of innovation that can emerge from a “test and learn” approach by regulatory agencies. However, lack of appropriate regulation risks leaving consumers unprotected against abuses and fraud. IFAD can collaborate with regulators and industry players in developing prudent regulations that will be neither overly burdensome nor stymie innovation. Regulations should offer adequate safeguards for smallholder farmers, yet remain open enough to allow innovative responses to farmers’ distinct financial needs.

Key areas of regulation that are relevant to DFS for smallholder farmers include:

- *Mobile money services.* Regulations that prohibit non-banks from issuing mobile money services can dampen the availability of digital service platforms, especially in rural areas, because banks might not have expertise in mobile platforms, and developing bank and MNO partnerships is highly complex and difficult to arrange. This can affect all types of DFS that leverage mobile money services. IFAD should engage regulators and industry actors in identifying regulatory frameworks that either allow non-banks to offer digital/mobile payments or facilitate partnerships between MNOs and FSPs.
- *Interoperability.* Limited operability can be a major barrier to MFS because it limits choices for smallholders. IFAD’s staff can engage MNOs and regulators in developing policies and strategies that encourage interoperability among MNOs (e.g. a Tigo customer able to send money to a Vodafone customer) and among agents (e.g. an agent able to accept both Tigo and Vodafone mobile money transactions). Interoperability would result in better product choices for smallholder households.
- *Consumer protection.* A major role for IFAD is to work alongside regulators to formulate strong consumer protection measures that provide reasonable safeguards for smallholder farmers for all types of DFS. IFAD should engage MNOs and FSPs in establishing internal protocols for consumer protection, such as maintaining personal data securely, offering transparent and clear information on product costs and establishing clear consumer recourse policies in the event of transactional difficulties, especially when dealing with agents. Securing the buy-in of private actors

and ensuring that consumer protection protocols are internally driven is important in minimizing consumer risk and preventing excessive external regulation.

- *KYC regulations.* Strict KYC regulations can affect smallholder access to all types of DFS. IFAD can engage national regulators in modifying KYC requirements using a risk-based approach that promotes greater financial inclusion for smallholders, while upholding the standards set forth by FATF. Lowering KYC requirements is vital for low-risk products that subsistence farmers are more likely to use, such as mobile money services or low-balance savings accounts. In addition, IFAD can collaborate with DFS providers to identify technology-based solutions to KYC requirements for rural areas (e.g. field officers taking photos and filling out identity information with tablets or smartphones to facilitate account opening).
- *Agents.* Although not all DFSs rely on agents, many do rely on a network that can provide cash-in/cash-out transactions. There are many different types of risk related to the use of agents that require some oversight and/or supervision – with fraud, poor customer service and liquidity shortfalls being some of the most common risks. Regulations could focus on preventive measures, such as licensing, in addition to ongoing monitoring by supervisory bodies and reporting by providers (Lauer, Dias and Tarazi 2011). Regulations are more likely to be effective if they are accompanied by the development of internal policies by providers, including plans to ensure that agents have sufficient liquidity and adequate training. Establishing procedures to protect the liquidity of agents is especially vital in rural areas, where agents could be far from a rebalancing point. IFAD can involve DFS providers in ensuring that such internal policies are in place.
- *Providing financial and technical support to agent training.* IFAD can fund training of all types of agents that directly serve smallholder farmers. Training could focus on understanding the financial flows of smallholders, how to provide good customer service, how to respond to customer complaints and how to ensure that customer data remain private and safe. For mobile money services, training should also include helping customers navigate a mobile menu when they first open an account or conduct a transaction. For more complex products, such as weather insurance, training should cover how to clearly explain the characteristics of the product.
- *Supporting bundling of agricultural VASs.* The increasing availability of agricultural VASs is a positive sign that industry players recognize the opportunities and benefits of offering farmers information and other tools to improve their farming yields and income. VASs can also act as an entry point to DFS. In Zimbabwe, the marketing campaign “I am an EcoFarmer” sought to build trust in using DFSs among smallholder farmers through the success stories of farmers and other relevant experiences (Mattern and Tarazi 2015). VASs could be even more effective when bundled with financial services. IFAD can broker associations among agricultural extension services, MNOs and/or FSPs – to offer bundled agricultural services – by demonstrating the various benefits, such as growing a client base and lowering the costs of acquiring and serving clients.
- *Promoting an ecosystem of DFS for smallholder farmers.* A digital ecosystem for smallholder farmers would connect major players along agricultural value chains. The ecosystem would begin with VAS as an entry point; it would also include a mechanism whereby information is shared with smallholder farmers (on weather and market prices) and buyers (on farmers’ crops and sales); and it would provide a digital payment platform offering a variety of other DFSs (Grossman and Tarazi 2014). Although developing an entire digital ecosystem might not be feasible for every IFAD project, ensuring that projects advance the elements necessary for the development of such an ecosystem will ultimately benefit farmers and rural communities. An ecosystem does not have to happen all at once. In fact, a stepped approach might be more realistic and in line with current developments in a country. For instance, the Better Than Cash Alliance (BTCA) recognizes that countries are at different stages on the journey towards a cash-lite economy and can gradually shift from one stage to another.

Scalability

The Kenya case has garnered much attention from industry players for the potential scalability of DFS. As proven by M-PESA, mobile phone networks offer ideal platforms for reaching significant scale owing to the extensive and continued growth in network coverage and mobile phone penetration. Nonetheless, despite extensive mobile coverage in the rest of the world, there are actually few examples outside of Kenya where there has been major uptake of DFS – mainly in Bangladesh, Pakistan, the Philippines, Uganda and the United Republic of Tanzania.

As explained earlier, an enabling environment, appropriate regulations, robust technical infrastructure and far-reaching distribution networks play major roles in the extensive uptake of DFS. But there are other factors contributing to scalability. A key to the rapid and expansive uptake of mobile services in Kenya, and more broadly in Africa, is the slow growth in fixed telephone lines, which require more expensive infrastructure. This has paved the way for mobile telephony to become the main means of communication (ITU 2007). In 2007 – when M-PESA was launched – there were 11.44 million mobile subscriptions in Kenya compared with only 264,800 fixed telephone lines (CIA 2008). Similarly, in Pakistan, there were some 4 million telephone lines in use compared with 103 million mobile phone subscriptions in 2009 when EasyPaisha – the largest mobile money provider in Pakistan – was launched (CIA 2010).

Another major factor in scalability is brand recognition and customer base (Box 3). Safaricom has the lion's share of the Kenyan market (80 per cent at the time of launch) and recognition among mobile subscribers (GSMA n.d.). While Telenor Pakistan, which partnered with Tameer Bank to launch EasyPaisha, also has very strong brand recognition in Pakistan, it had only 22 per cent of market share. To increase this, the two decided to make mobile money services available primarily as OTC transactions, allowing them to broaden their potential customer base by serving all mobile phone subscribers, not just Telenor Pakistan's users (McCarty and Bjaerum n.d.).

Box 3. The potential and challenges of scale in the Philippines

The case of mobile money in the Philippines is unique in that the country has some of the earliest mobile money services in the world and is one of the largest recipients of international remittances, yet mobile international remittance services have experienced limited uptake.

The Philippines was one of the first countries to offer mobile money services, starting in 2001. Similar to the case in Kenya, regulators in the Philippines initially adopted an open learning approach that permitted MNO operators to issue mobile money before the regulations were defined in 2009. As a result of this approach and a highly competitive MNO market, there were nearly 10 million electronic wallets by 2011.

The Philippines is also one of the top recipients and senders of remittances in the world – over 9 million Filipino migrants send international remittances and about 30.5 million remit funds domestically to their families. Recognizing the potential in the remittances market, Globe Telecom, one of the largest MNOs in the Philippines, established partnerships with remittance providers in countries with large Filipino immigrant populations. GCash has agreements in 37 countries. In addition, with the support of IFAD's Financing Facility for Remittances (FFR), GCash expanded its agent network from 15,000 to 18,000 outlets.

While uptake of mobile money to receive international remittances has been slow, with only 300,000 users of mobile money using their accounts to receive international remittances in 2012, the GCash and FFR partnership has improved speed and accuracy of remittance transmission and offered a mechanism via SMS text messages to inform the sender and recipient when funds are sent and collected.

Some key factors explaining the low uptake include: a nascent digital landscape, which would convince customers of the benefits of using mobile money for remittances; the need to further segment the potential market likely to adopt mobile international remittances; and the need to refine current domestic mobile money offerings.

Sources: GSMA 2014a; Dalberg 2012; Baltao 2012; IFAD n.d.; IFAD 2013

Reaching scale is also dependent on the availability of high-quality distribution networks, especially agents. A large number of agents in rural areas is key, but agents also need to be properly selected, trained and monitored to build trust among potential clients. If services are to be taken up, especially in rural areas, DFS providers must ensure that plans are in place to address customer complaints and excessive cash-in/cash-out transactions through agents. M-PESA initially managed its extensive network of agents through a local agency hired to evaluate agent stores and train people, but with M-PESA's continued growth, Safaricom started engaging aggregators to fulfil those tasks (Mas and Ng'weno 2010). In Pakistan, EasyPaiza relied on Telenor Pakistan's long-standing franchise businesses, which are in charge of selecting and training mobile money agents (EasyPaiza case study). It is very likely that, as a result of EasyPaiza's approach to evaluating and training agents, customers perceive this provider as highly effective (McCarty and Bjaerum n.d.; Bold 2011).

Industry advocates also recognize that the scalability of DFS tailored for smallholder households depends on the extent to which a digital ecosystem is developed in which a variety of actors along agricultural value chains are connected through digital services. Such a digital ecosystem would engage smallholder farmers, commodity buyers, ministries of agriculture, agribusinesses, agricultural suppliers and FSPs. Again, commercial smallholders would benefit more directly from this digital ecosystem, but over time subsistence smallholders might be able to tap into it.

Taking into account these multiple factors, IFAD can promote the scalability of DFS for smallholder households at three levels.

For scaling up at the micro level, IFAD can:

- collaborate with a variety of FSPs (e.g. MFIs, cooperatives, credit unions and banks) to explore digital platforms that can extend the reach of their existing products to rural areas not currently served, with a focus on products specific to smallholder farmers
- collaborate with stakeholders, such as MNOs and FSPs, in designing strategies to increase the availability and quality of agents in agricultural areas, including plans for maintaining agent liquidity
- engage MNOs and FSPs in identifying strategies that will result in uptake of services by smallholder farmers, such as leveraging brand recognition and using BTL marketing approaches.

For scaling up at the meso level, IFAD can:

- finance agent networks to provide customer-service training to agents, with a focus on serving smallholder farmers. A high-quality supply of agents can earn the trust of rural clients, thus resulting in improved uptake of services
- engage network associations in defining the business case for serving smallholder farmers through digital platforms.

For scaling up at the macro level, IFAD can:

- engage regulators in developing regulatory frameworks and consumer protection policies that stimulate innovation and scalability, while maintaining adequate safeguards for smallholder farmers
- collaborate with telecommunications institutions and government ministries in analysing the business case for investing in infrastructure that can extend reach to rural areas.

Additional tools

Resources for designing and implementing DFS

- Better Than Cash Alliance (BTCA): Step-by-step toolkits for a variety of stakeholders in their shift towards electronic payments
- CGAP: Human-centred design guide for smallholder-specific DFS
- GSMA (an MNO network organization representing nearly 800 MNOs): Case studies and data on mobile money services, plus a design guide for agriculture-related mobile services
- International Finance Corporation (IFC) *Mobile Money Toolkit* ©: A combination of both publicly available information and original content and newly created materials
- USAID: A digital finance handbook for USAID staff.

Resources for assessing demand characteristics

- *CGAP Smallholder Farmer Financial Diaries*: Year-long cash flows of 270 households in Mozambique, Pakistan and the United Republic of Tanzania¹²
- *CGAP's Designing Digital Financial Services for Smallholder Families*: Qualitative assessments of smallholders' financial needs in Cambodia, Rwanda, Senegal and Zimbabwe
- FinMark Trust's *FinScope*: Nationally representative surveys in 21 countries on how individuals source their incomes and manage their financial lives
- Financial Sector Deepening Kenya's *FinAccess*: Year-long daily cash-flow data sets for 298 low-income households in Kenya
- InterMedia's *Financial Inclusion Tracker Surveys (FITS)*: Panel surveys providing details of the financial behaviours and mobile money habits of 3,000 households in Uganda and the United Republic of Tanzania, and 5,000 households in Pakistan
- InterMedia's *Financial Inclusion Insight Surveys*: Quantitative surveys and qualitative studies to explore demand-side trends in DFS in Bangladesh, India, Indonesia, Kenya, Nigeria, Pakistan, Uganda and the United Republic of Tanzania
- *World Bank Global Financial Inclusion Index (Global Findex)*: Comprehensive database on financial inclusion covering over 140 countries

¹² CGAP is planning to publish another five national household surveys in 2016.

Frequently asked questions

Q: Why should IFAD be involved in the development of DFS?

A: While DFSs are continuously expanding in reach, even in rural areas, there is growing recognition that smallholder farmers and their households have very specific financial needs requiring innovative and flexible approaches. IFAD's CPMs, with their extensive and in-depth knowledge of smallholder farmers, can act as facilitators to ensure that DFSs are effective in meeting the needs of smallholder farmers and households. Moreover, as a member of BTCA, IFAD recognizes the benefits of replacing the use of physical cash with electronic payments and of increasing the use of electronic payment systems in programmes and operations in order to promote financial inclusion, increased transparency and efficiency.

Q: Should IFAD's projects focus primarily on MFSs?

A: MFSs have great potential to reach people in rural areas, especially smallholder households, but the lessons learned so far from the industry point to the need to offer options to consumers that are appropriate to the regulatory frameworks, available infrastructure and characteristics of the target market. Recent studies of the financial lives of smallholder farmers show that smallholders vary in the types of DFS that can best meet their needs and in their access to MFSs (Anderson and Ahmed forthcoming).

Q: How should DFS be regulated?

A: Regulation of DFS can be a difficult balancing act, as it can either foster an enabling environment for innovation and scalability of services or stymie experimentation and investment. Regulation should ensure that consumers are protected without this becoming overly burdensome.



Photographer: Michael Hamp
Peru

Glossary

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 principal agent relationship does not exist under the law of the country in question.¹

Airtime top-up. Purchase of airtime via mobile money, usually funded from a mobile money account.²

Anti-money laundering and combating the financing of terrorism (AML/CFT). A set of rules, typically issued by central banks, that attempt to prevent and detect the use of financial services for money laundering or to finance terrorism. The global standard-setter for AML/CFT rules.²

Digital financial services (DFSs). 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.³

Interoperability. The ability of users of different digital money services to transact directly with each other. There are three levels of interoperability: at the platform level (users of one digital service being able to send funds to users of a different service), at the agent level (the same agent facilitates financial transactions of different service providers) and at the customer level (customers can access their accounts with any SIM or access multiple accounts with one SIM).⁴

Know your customer (KYC). A set of due diligence measures undertaken by a financial institution, including policies and procedures, to identify a customer and the motivations behind his or her financial activities. KYC is a key component of Anti-Money Laundering and Combating the Financing of Terrorism regimes.¹

Mobile financial services (MFSs). The use of a mobile phone to access financial services and execute financial transactions. This includes both transactional and non-transactional services, such as viewing financial information on a user’s mobile phone.¹

Mobile money. A mobile-based transactional service that can be transferred electronically 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.¹

Mobile money account. An account that is primarily accessed using a mobile phone that is held with the issuer. In some jurisdictions, mobile money accounts may resemble conventional bank accounts, but are treated differently under the regulatory framework because they are used for different purposes (e.g. as a surrogate for cash or a stored value that is used to facilitate transactional services).⁵

Mobile network operator (MNO). A company that has a government-issued license to provide telecommunications services through mobile devices.¹

Over-the-counter (OTC). Some mobile money services are being offered primarily over-the-counter. In such cases, a mobile money agent performs the transactions on behalf of the customer, who does not need to have a mobile money account to use the service.²

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