Options Assessment for Electronic Cash Transfer Delivery, Myanmar

Analytical Report

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Preface

Oxford Policy Management Ltd was contracted by HelpAge International to conduct an “Options assessment for electronic cash transfer delivery” for Myanmar. This report was authored by Maham Farhat and Thet Aung Lynn and peer reviewed by Steven Haley and Valentina Barca.

We are grateful to all respondents who gave us their valuable time, especially staff at the Department of Social Welfare (DSW) at the Ministry of Social Welfare Relief and Resettlement (MSWRR) in Naypyitaw. We are also thankful to the HelpAge Myanmar team for assisting us throughout the research study. For further information contact maham.farhat@opml.co.uk

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List of abbreviations

ATM	Automated Teller Machine
B2P	Business to Person
BCA	Better than Cash Alliance
BISP	Benazir Income Support Programme
CT	Cash Transfer
CCT	Conditional Cash Transfer
CDCP	Citizens' Damage Compensation Program
CGAP	Consultative Group to Assist the Poor
CNIC	Computerized National Identity Card
DSW	Department of Social Welfare
G2P	Government to Person
GAD	General Administration Department
GoM	Government of Myanmar
IDPs	Internally Displaced Persons
IFC	International Finance Corporation
ILO	International Labour Organization
ISPA	Inter Agency Social Protection Assessments
LIFT	Livelihoods and Food Security Trust Fund
MEB	Myanmar Economic Bank
MCCT	Maternal Child Cash Transfer
MIS	Management Information System
MMK	Myanmar Kyat
MMO	Mobile Money Operator
MOPF	Ministry of Planning and Finance
MSWRR	Ministry of Social Welfare, Relief and Resettlement
NRC	National Registration Card
NSPSP	National Social Protection Strategic Plan
OTC	Over the Counter

OPM	Oxford Policy Management
P2B	Person to Business
P2P	Person to Person
PIN	Personal Identification Number
POS	Point of Sale
PSI	Population Services International
PSP	Payment Service Provider
S/R	State/Region
SIM	Subscriber Identity Module
SP	Social Protection
UNCDF	United Nations Capital Development Fund
UNICEF	United Nations Children Education Fund
USSD	Unstructured Supplementary Service Data
WFP	World Food Programme

Executive summary

The purpose of this assignment is to explore feasible means for electronic or digital delivery of social cash transfers and recommend options for piloting, and for later wide scale-up through government social protection schemes. The primary sources of information for this report are relevant literature available online, as well as interviews conducted in November and December 2017 with a range of stakeholders in Yangon and Naypyitaw. Primary research at the village/ward level was beyond the scope of this study. We expect that subsequent research including evaluation findings from the HelpAge implemented Dry Zone Pilot in 2018 will add to the lessons learnt here.

Assessing payment mechanisms

The way social transfers are paid is important as this can mediate the impact of a programme; affect the cost and risks faced by a programme; and affect burden on recipients. We draw on the Inter Agency Social Protection (ISPA) framework for assessing the feasibility of e-payment options, as well manual payments for social transfers. The adapted criteria include: (1) Enabling environment such as policy, legislation, regulation and competition; (2) Accessibility including cost of access, appropriateness, and rights and dignity; (3) Robustness including reliability, governance and security; and (4) Integration including harmonisation and financial inclusion.

Payment mechanisms

There are several ways to make payments in cash transfer programmes: the combination of a specific payment instrument, payment device and payment point can be termed as a 'payment modality' or 'payment mechanism'[1]. In order to assess feasible payment options for the Myanmar context, we compare two payment *mechanisms*:

1. Cash delivered at various payment points (manually) including selected disbursement points, roaming or stationary pay agents, government offices and recipients' houses

2. Mobile money using smartphones and feature phones, with cash out at various payment points including e-wallets or Over the Counter (OTC) payments.

National Social Pension Payments in Myanmar

In Myanmar, the Department of Social Welfare (DSW) under the Ministry of Social Welfare, Relief and Resettlement (MSWRR) is the lead government agency for implementing the National Social Pension Programme. At the MSWRR head office in Naypyitaw, the Social Protection Section under the DSW is the division responsible for communication, coordination and oversight of the overall implementation of the Social Pension Programme.

The National Social Pension is a government funded nationwide programme which provides a monthly benefit amount of MMK10,000 to older persons aged 90 years and above. It is an unconditional, universal cash transfer programme and one of the eight flagship programmes identified in the National Social Protection Strategic Plan (2014). There are plans to reduce the age limit to 85 years and above in the next fiscal year pending approval from the Ministry of Planning and Finance (MoPF). Since the programme started in the financial year 2017/18, three quarterly payments (a total amount of MMK 30,000 for each recipient in each quarter) have been made manually, in June, September and December 2017, to around 40,000 recipients.

[1] See Glossary for explanation of technical terms

To implement the National Social Pension Programme – from beneficiary/recipient identification and registration to delivery of payments to the recipients – DSW relies mainly on the General Administration Department (GAD) at the state/region and village tract/ward level. Currently payments have been made using manual cash transfers with village/ward level officials delivering payments at recipients' houses or at other disbursement points. There is no data to estimate what proportion of payments are received by proxies versus direct beneficiaries. The current processes in beneficiary registration, management information systems and payments (payroll generation, payment disbursement and reconciliation) all rely on manual systems and checks. Depending on the payment mechanism adopted, and the roles and responsibilities assigned to DSW versus GAD, the flow of funds can be digitised at any administrative level.

Assessment of feasibility of mobile money

Enabling environment

Myanmar has seen explosive growth in the use of mobile phones during the last five years, with impressive network coverage. However, formal financial inclusion is low and it remains a largely cash based economy. Nevertheless, the current trends favour adoption of digital finance.

Globally, countries have adopted two approaches towards digital payments, particularly mobile money: the bank-led model and the non-bank led model. In Myanmar, the Central Bank of Myanmar acts as the main regulatory authority for financial services and there are two major Central Bank instructions concerning PSPs: The Mobile Banking Directive (MBD) of 2013 and Mobile Financial Services (MFS) Regulation (2016). Both MBD and MFS regulations allow for various types of transactions (person to business, person to person, government to person etc[2]) and require providers to offer wallet-level interoperability. Existing review of evidence and stakeholder interviews indicate that the regulatory environment in Myanmar is conducive to the development and use of e-payments including mobile money. There is no indication of changes to current regulation although active enforcement of certain aspects – such as interoperability – is currently weak.

There is a wide range of Payment Service Providers (PSPs) currently operating in Myanmar and providing electronic payment instruments**.** A convergence towards 'mobile money' platforms is expected in the near future. Currently, there are no aggregator companies[3] currently operational that could facilitate interoperability. However, increased competition amongst various PSPs is expected to improve interoperability organically and over time, reduce transaction charges for end-line users.

Accessibility

The current manual mechanism of delivering cash in hand through village/ward officials imposes little *additional* monetary costs on village/ward officials. For payments disbursed at payment points, costs could depend on travel distance and time although these are likely to be minimal if payments are made at the village level. The alternative to manual cash payments – mobile money – requires ownership of mobile phones. Mobile money in Myanmar currently offers limited accessibility to recipients at the village level in remote rural areas given the dearth of pay agents in such locations. However, telecom network coverage in most states and regions is now good and pay agents are increasing at a rapid rate. Transaction fees charged by mobile money operators (MMOs) for person to person (P2P) transactions are largely uniform with some differences for registered 'e-wallet' users and non-registered OTC customers. It is likely that the fee structure for social

[2] See Glossary for explanation of technical terms.
[3] See Glossary for explanation of technical terms

protection programmes is negotiated individually between government and PSPs, with no additional cost passed to the beneficiary. In terms of costs to DSW and GAD, mobile money can reduce certain administrative costs such as communication (through text notifications), payroll reconciliation, auditing, M&E and even grievance redressal through automated means. However, administering a mobile money payment mechanism may require additional staffing and expertise at DSW to manage PSP contracts, oversee quality of service delivery and liaise across teams, bringing additional costs to implementation.

Manual cash payments require little change in the behaviour of recipients and is easy for most beneficiaries to adopt – including older people, women, less literate communities etc. Literacy per se may not be an issue but the use of mobile money requires greater levels of digital literacy and may be easier to adopt if the payments are received by proxies instead of older recipients. General mobile phone usage has increased exponentially during the last five years but it is difficult to assess current user behaviour and predict changes, especially amongst Social Protection recipients without new research.

The current system of manual payments provides easy physical access as payments are made at the village level, although it does not provide *choice* of location or timing to recipients. The accessibility of mobile money depends on the distribution of pay agents, as well as interoperability across payment PSPs. The presence of pay agents at the village is still low and variable, but on the rise, implying greater choice for recipients. At the same time, there is little interoperability in terms of transfers across e-wallets of various PSPs which implies less choice for recipients.

The National Social Pension targets the very elderly who are more likely to be immobile and suffer from age-related disability. Manual cash payments, handed to recipients in households is more feasible for older persons than mobile money. At the same time, disability and mobility are less important considerations if payments are already accessed by proxies or trust between the recipients and proxies is high. In general, the adoption of mobile money for social transfers can be quicker and easier as the general usage of mobile money increases and there is greater adoption of e-payments across the society.

The current system of manual payments provides no avenue for recipients to independently raise grievances about the payments process. It also offers little independent oversight of stakeholders involved in the payment process, posing significant risks of fraud and corruption – although it is important to highlight that there is insufficient evidence to suggest whether these risks are realised. Cash transfers such as social pensions provide recipients greater dignity by allowing greater choice in how the money is used. Whether a specific payment instrument – manual cash versus mobile money – allows for greater dignity is debatable. Village/ward officials can gain respect from the recipients and the community by being viewed as they are helping vulnerable people. At the same time, recipients may feel that village/ward officials are doing ‘a favour’ and may be less likely to make a complaint if any issue arises. More research at the village/ward level is needed to better assess this question.

Overall, if the National Social Pension expands to include 85 years and above, the increase in scale of payments is likely to affect the accessibility of manual cash payments in terms of higher costs to village/ward administrators and poorer accuracy of payroll data. In this instance, mobile money payments could be more accessible provided adequate coverage at the village level, and greater interoperability across PSPs.

Robustness

The current manual mechanism of delivering National Social Pension payments is reportedly reliable in terms of no reported delays at various stages of the payment process – from Ministry of

Planning and Finance to the Myanmar Economic Bank (MEB) at the union level and then MEB transfers to state/region level and township level. It takes two weeks for National Social Pension funds to reach township GAD offices from the DSW MEB account at the union level. Once these funds reach the township level, the delivery timing of payments to recipients varies. Without access to consolidated administrative data or village-level research, it is not possible to determine how reliable payments are in terms of fixed timings for disbursement.

In comparison to the manual system of payments, mobile money can provide greater reliability in terms of disbursement dates and timings. Given the accuracy of payroll data the flow of funds from MMOs' bank account to recipients' e-wallets is almost instantaneous. This automated process also allows organisations to track disbursement of funds and query issues in disbursement. The use of an external PSP means that if payments are made into accounts or e-wallets, then information about account usage and money withdrawal is not available to the payment administrator (NGO or government) owing to client privacy and confidentiality rules stipulated by the Central Bank.

In Myanmar, all MMOs and banks have internal controls on pay agents and can manage liquidity issues through respective distribution networks. Liquidity issues could prove to be a challenge if there are insufficient pay agents at the village level and if the scale of the programme increases to serve a larger population. At the same time, mobile money could allow more frequent transfers (monthly versus quarterly) given reduced administrative burden and this could mitigate liquidity issues.

The DSW Social Protection Section is a nascent team with a significant workload which has increased in recent months with the simultaneous roll out of both the National Social Pension, as well as the maternal child cash transfer (MCCT). DSW's oversight on the implementation of the National Social Pension extends only till the state/region level where DSW has physical presence. Beyond that, DSW relies on GAD. A switch to mobile money payments for the National Social Pension would require considerable changes in the governance arrangements, combined with significant added capacity at all administrative levels for DSW in the short and medium term. The adoption of mobile money may still require reliance on GAD township offices and village/ward administrators. In outsourcing the payments process, DSW would need to invest in continuous management of its relationship with the selected PSP(s).

The current manual payment mechanism is functional but inadequate in terms of sufficient checks and balances on the quality of service delivery and security of payments. Although there are no reported instances of fraud or corruption at the union level, the current system of grievance redressal, M&E and administrative data management (MIS) does not allow for detection of fraud. Without access to village level data, it is not possible to estimate the existence or prevalence of malpractice in the manual payments process. Nevertheless, there are several ways in which the existing manual system of cash payments can result in leakages and fraud. The use of mobile money to deliver Social Pensions could provide greater security in terms of checks and balances on the payments made to recipients. A regulated MMO will be required to maintain high standards of data security for customers by the Central Bank, but these systems should be audited as well by the DSW. Nevertheless, the use of mobile money does not alleviate all security concerns.

Integration

There is an expectation that harmonisation of cash transfer programme processes will occur in the long term but short to medium term priorities include expansion of current programmes and strengthening of existing payment mechanisms. The use of a manual payments system allows for less harmonisation across cash transfers although they could help increase DSW capacity at the sub-national level, and increase trust and communication between government and community members. The use of mobile money allows for greater and easier harmonisation across cash

transfers provided that management information systems are automated and recipient data is linked across programmes through unique identifiers such as National Registration Card (NRC). Once an effective mobile money mechanism is in place for one cash transfer programme, it can be adopted relatively easily across other cash transfer programmes. This is particularly the case when mobile payments use the same delivery/disbursement infrastructure as well as similar PSPs.

Payment mechanisms for the National Social Pension in particular should focus on immediate need for cash out or withdrawal. Nevertheless, the use of savings enabled mechanisms can improve financial inclusion of Social Pension recipients. This is more likely in instances where payments are received by proxies. The use of manual cash payments does not enable or encourage savings or use of other financial services. The use of mobile money through e-wallets[4] can enable savings, with higher amounts expected if PSPs are commercial banks and lower amounts if PSPs are mobile money operators. Typically, when social grant recipients are provided with a transaction account, they withdraw the full amount of the transfer in a single transaction. However, the National Social Pension is not a poverty-targeted Social Protection programme, so the income profile of recipients will vary, making it difficult to estimate how payments will be used. It is likely that using a savings enabled account in itself may not translate into widespread gains in relation to financial inclusion.

Way forward

The review of global evidence suggests that there are clear gains to be made from switching from manual payment mechanisms to e-payments. However, selecting an appropriate payment mechanism for a Social Protection programme is usually not a one-size-fits-all and may involve a combination of several mechanisms. No single payment mechanism is perfect and trade-offs exist between objectives and competing agendas of different stakeholders that influence the performance and quality of selected payment mechanisms.

Myanmar is relatively new to the use of e-payments for social transfers but some programmes have started to deliver e-payments, using mobile money e-wallets, in both urban and rural areas. This includes the World Food Program (WFP) funded cash transfer to IDPs in Kachin State. These programmes are at an early stage of digitising their payment processes but their experiences suggest that mobile money *can* be used to deliver social transfers in Myanmar. However, lessons learnt from these programmes may not be directly applicable to programmes implemented and funded by the government for a number of reasons. There is also some experience within the Government of Myanmar in using e-payments. This includes Government Pension delivered to retired government employees over the age of 60 years through Myanmar Economic Bank, currently estimated at around 700,000 recipients.

There are a few key considerations if e-payments are used for government cash transfers in Myanmar. We focus specifically on the National Social Pension Programme implemented by DSW.

1. Transition to e-payments should be a medium to long term goal.

In the short term, DSW should prioritise capacity building, expansion of cash transfer programmes and strengthening internal systems. Last mile delivery challenges will remain in the short term as village level presence of pay agents is not universal. The implementation of cash transfers will continue to require GAD's support at both the township and village/ward level in the short to medium term. It is also crucial to get an accurate understanding of some key social pension programme characteristics before changes are made to the current payment system. More research is also needed to better understand the community level context in which e-payments for

[4] OTC transactions using mobile money will not allow savings or deposits so are not 'savings enabled'.

cash transfers will operate. DSW can capitalise on market trends towards increasing take up of e-payments, as well as policy efforts to increase financial inclusion.

2. **E-payments cannot work without strengthening other implementation processes and improving DSW capacity.**

The use of electronic payments requires strengthening of related processes such as identity verification, management information systems, grievance redressal channels and effective monitoring and evaluation at the programme level. Moreover, these systems need to be *upgraded* with a view to use e-payments in the future. A Social Protection programme with paper-based record system cannot move from manual to e-payments. In the same vein, switching to e-payments per se will not eliminate all risks of fraud or error so functional grievance redressal mechanism and M&E system needs to be in place. Strengthening existing systems and testing new ones requires increased capacity, especially to engage with third parties contracted to deliver payments. This includes sufficient capacity within DSW to set out clear Terms of Reference/Request for Proposals, negotiate with PSPs and liaise with regulatory authorities and other concerned line departments. It also requires capacity to monitor the enforcement of contracts and continuously engage with PSP throughout the life of the programme

3. **It is likely that a 'mixed model' works best for the social protection programmes, with a mix of manual and e-payments, and potentially multiple service providers.**

Given the diversity of programme recipients, geography and DSW capacity across Myanmar, it is unlikely that e-payment mechanisms such as mobile money will act as a universal solution. In Myanmar, it is likely that e-payments will be feasible and easier to roll out in urban areas with manual payments for remote rural areas. In addition to various payment mechanisms, DSW may require different PSPs if coverage of one PSP is not universal and/or regulatory authorities do not allow 'monopolisation' of the market, or to allow recipients to choose the best service for them. This is likely to add complexity in the implementation of other processes, requiring greater capacity to manage different payment mechanisms and negotiate with different PSPs. However, the need to use multiple PSPs may diminish as interoperability improves. There is increased convergence towards different types of PSPs in Myanmar offering mobile money products with varying degrees of functionality. The starting point for assessing the suitability of these options would be coverage and distribution of cash out points, followed by other considerations.

4. **Maintain stakeholder commitment, across the board, throughout the transition to e-payments.**

It is important to consider the priorities of the different stakeholders involved (ministry line departments, programme donors, PSPs and beneficiaries). There should also be a 'business case' for everyone involved along the entire value chain of stakeholders such as PSPs, pay agents, village officials etc. There is increasing competition between PSPs in Myanmar to provide mobile money products. However, currently there are no PSPs with the coverage and scale suitable to deliver nationwide payments, and in all likelihood national coverage will only come through interoperability or aggregators. DSW therefore needs to negotiate carefully with PSPs, as well as regulatory authorities to ensure that any public-private collaboration is attractive to all parties and results in a more cost-effective solution for the government. DSW would need to involve the Central Bank and Ministry of Planning and Finance at an early stage to discuss the business case for switching to e-payments and use of one or more private sector PSPs.

5. Prioritise social protection objectives over financial inclusion objectives in the short term.

Formal financial inclusion[5] is not a primary objective of the cash transfer programmes in the Myanmar National Social Protection Strategic Plan (2014), so e-payment mechanisms should be savings enabled, rather than savings encouraged. Risks of not prioritising reliable payments first include lack of trust and/or understanding of the new payment system by beneficiaries which might discourage them to use the system for anything beyond collecting their social cash transfers and in turn, undermine financial inclusion goals.

6. Adopt an approach which provides choice and drives competition in the long term

In the long-term, improved financial inclusion itself can drive the adoption of e-payments in social protection programmes. In an ideal scenario, all recipients of social protection programmes should have access to an account – a bank account, e-wallet or other transaction account – that should be able to receive payments from the government. Adopting this approach means that social protection recipients are provided with the choice and flexibility of using the PSP and product of their choice. It is then up to the government to deliver e-payments to their accounts, negotiating with different PSPs on transaction charges and implementation modalities so that end-line recipients receive the full benefit amount. This approach can also use market competition in a way that allows PSPs to register customers, competitively, and encourage innovation amongst service providers so they can offer better coverage and functionality of their 'e-products'. However, adopting this approach would still necessitate effective enforcement of regulation, strengthening of internal systems at DSW and continuous monitoring and evaluation to ensure the welfare of social protection recipients.

7. Determining cost efficiency of manual versus e-payments is challenging in the short-term

Assessing the cost efficiency of various implementation modalities is important for DSW given resource constraints and the need to set policy and budget priorities in the long term. However, at the current stage, assessing the cost efficiency of manual versus e-payments is difficult for a number of reasons. The costs of operationalising e-payments depend on the type of e-payment mechanism that is chosen and the division of roles across DSW, GAD and PSPs. The user fees and implementation costs currently charged by private sector PSPs will likely change in the future. Furthermore, these costs are negotiated at an individual basis and require ex-ante negotiation. Understanding costs of manual payments is difficult as these are delivered through GAD and budgeting in DSW is not activity based. In comparison to other payment mechanisms, a basic mobile money mechanism generally provides the option of relatively low set up costs. If DSW decides to use the option of e-wallets then there will be costs associated with helping recipients to register their SIM cards. However, if OTC payments are used then recipients do not need to be registered. Regardless of the type of mobile money product used, there are significant costs associated with training DSW and GAD staff, village/ward officials, and recipients.

[5] See Glossary for explanation of technical terms

1 Introduction

Social protection is becoming an increasingly important component of both strategic policy development and public expenditure in Myanmar. The government's increasing investments in social protection are underpinned by the National Social Protection Strategic Plan of 2014[6]. This Strategic Plan has eight flagship programmes of which four are unconditional transfers (cash transfers to pregnant women and children under 2 years, gradual extension of that allowance to other children, cash transfers to persons with disabilities, and social pensions) and one is conditional (public employment programme).

In Myanmar, social protection is a mandate of the Ministry of Social Welfare, Relief and Resettlement (MSWRR). MSWRR is playing a key role in the extension of social protection systems but needs to make policy choices that promote greater efficiency in a context of limited fiscal and human resource capacity. Achieving sustainable delivery mechanisms for cash transfers is challenging given the relative weakness of government and social and financial institutions in Myanmar, and concerns over corruption and misuse. MSWRR is currently implementing the nationwide national social pension for individuals aged 90 years and above, with technical assistance from HelpAge under LIFT funding. It is also implementing a maternal child cash transfer (MCCT) in Chin State, with support from LIFT and other partners. MCCT is now being rolled out in Rakhine State and Naga.

Whilst cash transfers are becoming increasingly important in Myanmar, their delivery mechanism typically remains manual with physical cash delivered by hand. While manual payment may have the advantages of simplicity and social interaction, it is labour intensive and poses risks related to leakage and delayed payment. Many other developing countries use electronic or digital payment systems[7] using mobile phones, cash cards and ATMs etc to deliver social payments. In recent years, an exponential growth in the coverage and take up of mobile phones in Myanmar, coupled with changes in regulation and increased market competition have now allowed the possibility of using e-payments for social transfers.

The purpose of this assignment is to explore feasible means for electronic or digital delivery of social cash transfers and recommend options for piloting, and for later wide scale-up through government social protection schemes in Myanmar. This analytical report provides an overview of the 'e-payments market', highlighting the regulatory environment, payment service providers (PSPs), and experiences of using e-payments in delivering social transfers in Myanmar. We focus on two payment mechanisms (manual option and one electronic option) and assess their suitability in delivering the National Social Pension implemented by the Department of Social Welfare (DSW). The findings of this study should support HelpAge International in operationalising its pilot of e-payments to deliver social pensions in the Dry Zone in 2018. It should also support DSW in assessing feasibility of e-payment options for cash transfer programmes, especially the National Social Pension Programme[8] targeted at 90 years and above.

The primary sources of information for this report are relevant literature available online, as well as primary research conducted in November and December 2017 with a range of stakeholders in Yangon and Naypyitaw. A full list of respondents is presented in the Annex B. It is important to note that this research is not designed to be statistically representative and draws on some published datasets that are now dated[9]. Myanmar has experienced rapid change in access to

[6] GoM 2014.
[7] Electronic payments, e-payments and digital payments are used interachangeably throughout this report.
[8] To avoid confusion, we term the government implemented social pension as 'National Social Pension' (targeted at 90 yrs and above) and HelpAge implemented social pension as Dry Zone Social Pension (targeted at 85-89 yrs).
[9] Such as the Finscope Survey published in 2013

mobile and internet services; it is difficult to estimate whether that has translated to an equally rapid change in user behaviour across the country. It is ever more challenging to understand how the lives of older people, rural residents and vulnerable communities – those targeted most often by social protection programmes – have been affected by these rapid changes. Another caveat to our methodology is the lack of primary research at the recipient[10] level, assessing practical implications, usage and digital literacy at the ward and village level. We expect that the planned pilot of e-payments in Dry Zone can systematically evaluate recipient preferences and experiences with e-payments.

This report is structured as follows:

- Section 2 describes the framework for assessing e-payments in Myanmar and analyses selected payment mechanisms focussing on National Social Pension implemented by the Department of Social Welfare; and
- Section 3 discussed lessons learnt from international and local experiences in using e-payments; as well as recommendations to Department of Social Welfare for transitioning to e-payments to deliver the National Social Pension.
- Annexes provide supporting documents and analysis

[10] We have used the term ‘recipient’ throughout this report to refer to beneficiaries of social protection programmes. This is used interchangeably with ‘clients’ or ‘customers’ when referring to the private market context.

2 Assessing payment mechanisms for Myanmar

The way social transfers are paid is important as this can mediate the impact of a programme; affect the cost and risks faced by a programme; and affect burden on recipients. The goal of a payment system is to successfully distribute the correct amount of benefits to the right people at the right time and with the right frequency, while minimising costs to both the programme and the recipients[11]. Irregular and unreliable payments decrease the positive impact of social transfers, while payment mechanisms which do not work effectively increase the vulnerability of the payment processes to fraud and the overall burden on recipients. Dysfunctional payment systems ultimately undermine the key objectives of a social protection (SP) programme to provide reliable support to intended recipients by mitigating positive impact and damaging the reputation and trust in government systems.

The overall research question for this assignment is: What option or options for electronic cash transfers are the most appropriate for Myanmar's Government to pursue in delivery of schemes under the National Social Protection Strategic Plan? **We ask this question with specific focus on the pilot and scale up of the Social Pension scheme targeting older people aged 90 years and above**; and from the perspective of both supply (telecom companies, financial institutions, agents, etc.) and demand (governments, NGOs, beneficiaries/recipients).

In this Section, we first summarise various payment mechanisms or modalities available for e-payments. We then explain the status quo with respect to payments under the current National Social Pension Programme implemented by DSW. Following that, we draw on the Inter Agency Social Protection (ISPA) framework for assessing the feasibility of e-payment options, as well manual payments for social transfers. The adapted criteria include[12]:

1. **Enabling environment** (policy, legislation, regulation and competition): this is broader and includes the regulatory framework and market conditions that would enable the development of payment mechanisms for social protection systems.

2. **Accessibility** (cost of access, appropriateness, and rights and dignity): refers to the accessibility of social protection payments from the point of view of the beneficiaries or recipients. The requirement for accessibility is described in three parts: cost of access, appropriateness, and rights and dignity**.** There should be a process in place to define, monitor, and enforce beneficiaries' rights in relation to payments and the quality of service delivery.

3. **Robustness** (reliability, governance and security): refers to the importance of designing and implementing a payment mechanism that can be depended on to reliably deliver transfers on a regular basis to the correct recipient. The active monitoring of the PSP by the social protection programme is a proactive process of communication and coordination (governance) between the social protection programme and its PSP. The security of the delivery mechanism and the risks that it may expose beneficiaries to should also be considered.

4. **Integration** (harmonisation and financial inclusion): this looks at an individual social protection programme's relationship to the broader social protection system. It assesses the extent to which the programme is taking advantage of economies of scale by coordinating across the sector. This includes integrating the beneficiary into the financial system (financial inclusion).

A detailed research plan mapping relevant research questions to the above criteria is presented in Annex A. As noted in Section 1, this assessment draws on several secondary and primary data

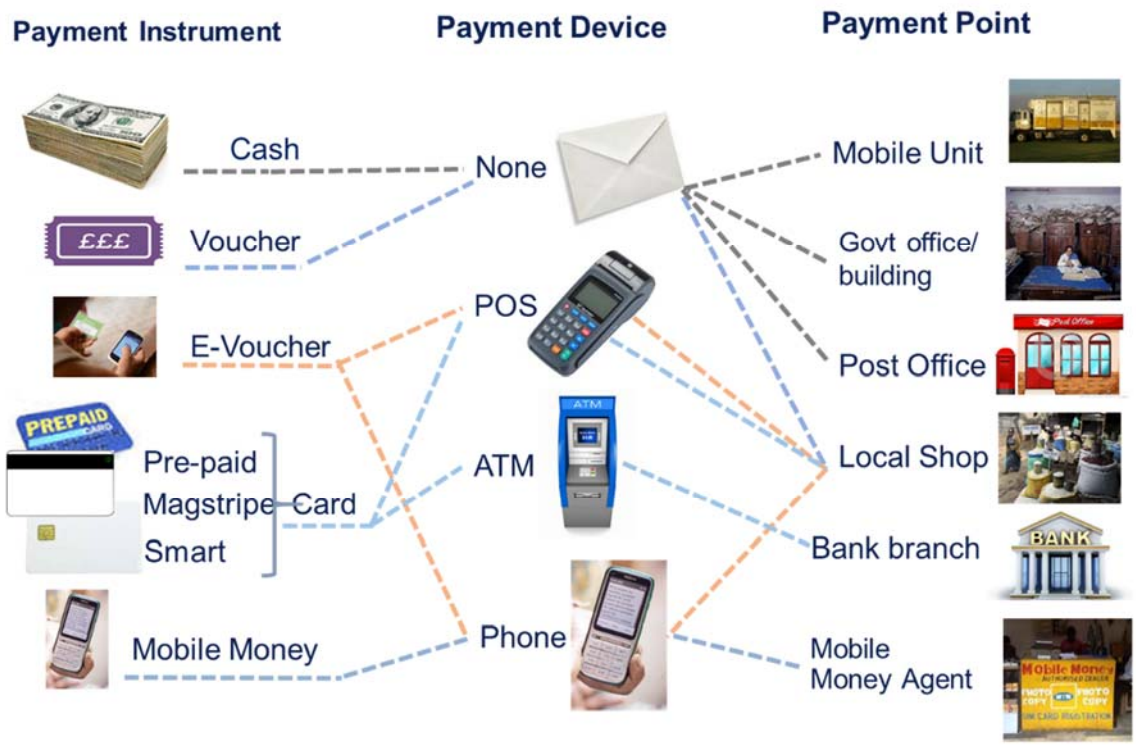
[11] Page 156, Grosh et al. 2008.
[12] ISPA 2016.

sources to assess feasibility of e-payments options in Myanmar. These include payment service providers (PSPs) such as commercial banks, mobile money operators (MMOs); NGOs, donors and social enterprises; staff at the Department of Social Welfare (DSW), Pensions Department at Ministry of Planning and Finance (MoPF), General Administration Department (GAD) staff and village administrators in one peri-urban township; and the Central Bank. A full list of respondents is provided in Annex B.

2.1 Payment mechanisms

There are several ways to make payments in cash transfer programmes[13]. Figure 1 illustrates how different combinations of *payment instruments* (cash, cards, mobile money, vouchers etc) utilise different *payment devices* (POS, ATMs, mobile phones etc) to deliver payments at different *payment points* (mobile vehicles, post offices, agent shops, bank branches etc). The combination of a specific payment instrument, payment device and payment point can be termed as a '*payment modality'* or *'payment mechanism'*.

Figure 1 Payment mechanisms for CTs

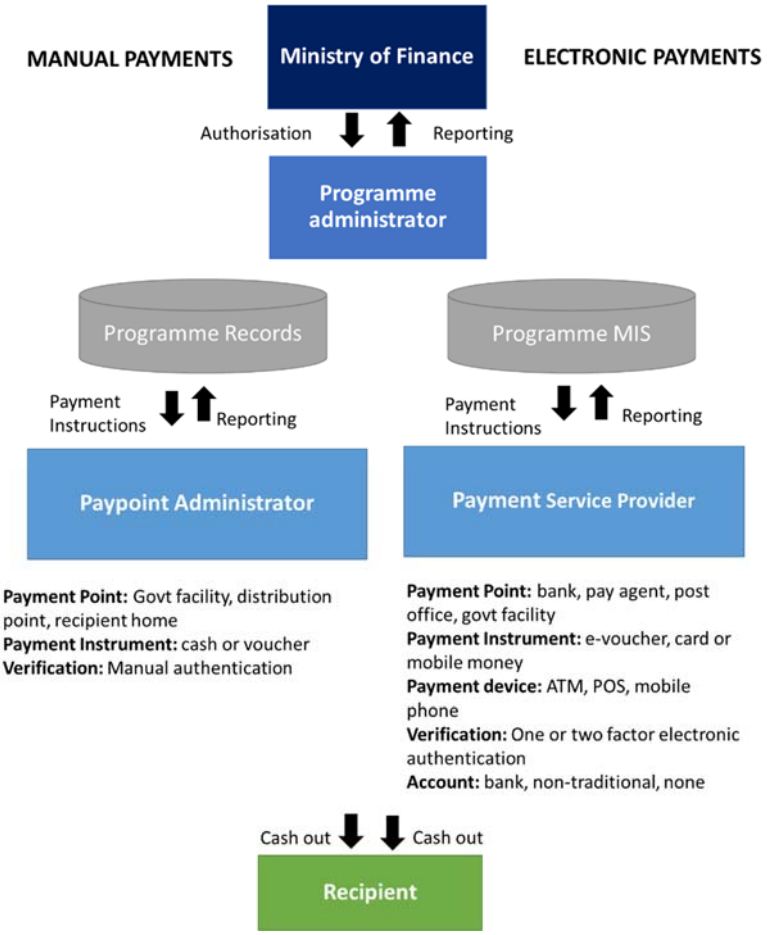


Source: Barca (2016). Getting Payment Systems Right for Social Protection. Oxford Policy Management Ltd

All payment mechanisms for Social Protection programmes involve transfer of funds and authorisation at the central level from the Ministry of Finance (or a donor account) to a Programme Administrator (usually a line department in a relevant Ministry). The Programme Administrator then provides payment instructions based on programme records or Management Information System (MIS) to deliver payments to recipients. However, the operationalisation of e-payments often requires contracting an external Payment Service Provider (PSP) to deliver payments and relies on an automated MIS (see Figure 2). PSPs are essentially financial services providers and can include banks, microfinance institutions (MFIs) or mobile money operators (MMOs)[14].

[13] Note that we focus specifically on 'Government to People' (G2P) transactions.
[14] See Glossary for explanation of technical terms.

Figure 2 Typical components of payment mechanisms



Source: Adapted from ISPA. Social Protection Payment Delivery Mechanisms: What matters Guidance Note

Table 1 summarises how selected e-payment mechanisms function, together with examples of social protection programmes implemented by governments, employing these mechanisms. It is important to recognise that no payment mechanism is perfect – and the adoption of a mechanism to deliver cash payments in social protection programmes is driven by a number of inherent characteristics such as:

- **Functionality:** payment mechanisms can perform many functions including transferring money or remittances; allowing 'cash out' or money withdrawal; allowing savings; digital payment for products and services; and information services. For instance, mobile money e-wallets can allow money transfer, phone top-up, bill payment and access to information. A social protection programme using debit cards or manual cash payments could use disbursement points where specific conditions such as vaccinations or health check-ups are enforced.

    - *Limited function payment instruments* do not allow recipients to deposit additional funds, or access funds outside the set infrastructure for a programme plus funds cannot be stored indefinitely. Examples include mobile money e-wallets operated by MMOs or magstripe cards issued for programme purposes. *Mainstream financial instruments* usually allow funds to be stored indefinitely and can be accessed via mainstream financial infrastructure and recipients' can also deposit additional funds. Examples include commercial bank 'transaction' accounts providing customers with Visa or Master debit cards.

- **Coverage:** This implies presence of payment points for cash out. The larger the network of disbursement points the easier and less costly it is for recipients to access payments. Greater coverage gives recipients greater choice and drives better quality of service.

- **Interoperability:** This implies functional interworking of payment services between Payment Service Providers[15]. For example, the ability to transfer money from e-wallet of Mobile Money Operator A to Mobile Money Operator B or transfer money from a commercial bank account to a mobile money account/e-wallet. Interoperability can be limited to bilateral agreements between Payment Service Providers.

- **Open versus closed loop systems:** Open loop payment instruments are those that can be used at acceptable infrastructure beyond those of the issuer. An example being an ATM card provided to a recipient by Bank A that can be used at other ATMs provided by other banks or third parties. It is similar to interoperability but is a scheme that any regulated payment service provider can join rather than a series of individual agreements. In special purpose or closed loop proprietary systems, the software and systems used to operate the payment equipment (i.e. Point of Sale devices or cards) belong to a particular firm and hence conform to that firm's internal standards and not international standards. This means that integration across programmes and coordination is difficult as payment cards issued within such a programme setting cannot be used by other payment service providers' POS or ATMs.

- **Cost:** this includes fees charged by PSPs to deliver payments, access complementary services and issue replacement tokens such as cards. In most social protection programmes, the government decides how much of these fees should be passed to the eventual recipient.

- **Registration and authentication:** most payment mechanisms require recipients to provide some identification to register for and receive payments (e.g. to comply with the country's Know Your Customer or KYC regulations[16]). Payment mechanisms using commercial bank channels and instruments such as bank cards often require more stringent identity verification procedures with less risk of fraud but greater demands on recipient's time and resources. Authentication or verification at payment points can range from requiring PINs to biometric information or simply verification through manual authentication of an identity card.

[15] For a glossary of MFS terminology, see AFI 2013.
[16] 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. See AFI 2013.

Table 1 Selected payment mechanisms for Govt. SP programmes

Payment instrument	Payment Device	Payment Point (authentication requirements)	Functionality	Examples of SP programmes
Cash	Cash	Government office, post offices, other selected payment points, beneficiary homes etc (manual authentication)	▪ Open loop ▪ Limited function	▪ National Social Pension in Myanmar ▪ Maternal Child Cash Transfer (MCCT) in Myanmar
Pre-paid debit cards	Point of sale (POS) or ATM or electronic data capture	Bank branch or local shop (PIN need to redeem cash)	▪ Closed loop or open loop ▪ Limited function	▪ Pakistan's Citizens' Damage Compensation Program (CDCP)
Magstripe debit card			▪ Open loop ▪ Functionality varies	▪ Pakistan's Benazir Income Support Programme (BISP)
Smart cards	POS or ATM	Bank branch or local shop (PIN or biometric verification needed)	▪ Open loop ▪ Functionality varies	▪ Philippines (Pantawid Pamilyang Pilipino Programme (4Ps)) ▪ Kenya Health Safety Net Program (HSNP) ▪ India's National Rural Employment Guarantee Scheme (NREGS) & Social Security Pensions (SPP)
Electronic vouchers	POS or phone	Participating shopkeepers, banks or mobile money agents (PIN needed for verification)	▪ Closed loop system ▪ Limited function	▪ WFP Zambia has delivered e-vouchers to farmers via text messages
Mobile money	Phone	Mobile money agent (Unique PIN on phone menu)	▪ Closed loop or open loop ▪ Functionality varies[17]	▪ Haiti's Manman Cheri (TMC)
Notes: the examples presented in the last column are reviewed in Annex C				

In order to assess feasible payment options for the Myanmar context, we compare the incumbent option of cash delivery with a selected e-payment option. This report therefore focuses on two payment *mechanisms*:

1. Cashdelivered at various payment points (manually) including selected disbursement points, roaming or stationary pay agents, government offices and recipients' houses

2. Mobile money using smartphones and feature phones, with cash out at various payment points

[17] This can be either the traditional bank account or a non-traditional account (such as e-money) and those that do not use a transaction account.

a. This could include the use of a **transaction account or e-wallet** which requires registration of customers and provide an instrument through which money can be deposited, saved and withdrawn at any time. Currently in Myanmar, transactions cannot be done between e-wallets of different PSPs.

b. It could also include the use of **Over the Counter (OTC) payments** which do not require registration of customers, are one off payments and do not allow saving. Currently in Myanmar, OTC payments can be done across PSP platforms.

The first option is selected as it is the status quo for current DSW programme, and many other social transfers. The second option is selected given the explosive growth in use of mobile phones and rapid expansion of mobile money services in Myanmar over the last five years. We have decided not to focus on cash cards – including magstripe cards, smart cards and pre-paid cards – given that banking penetration in Myanmar is extremely low[18] and growth of commercial banks is expected primarily in urban areas. The use of debit and credit cards is still relatively new in Myanmar and the extensive availability of lower cost options such as mobile money and over the counter transactions[19] can allow the country to skip the standard transition from cash to cards to mobile money. Myanmar is still a cash based economy with very low levels of financial inclusion[20]. Bank customers and users of bank cards are overwhelmingly urban and literate and unlikely to be the core recipients of intended social protection programmes.

Moreover, this report focuses on the use of e-payments for the National Social Pension and the primary objective of this programme is to deliver payments efficiently to elderly recipients to support their income. Consumption smoothing rather than broad financial inclusion is the primary motive so mechanisms involving fully-functional bank accounts are not a priority for social protection programmes. It is also important to emphasise that the selected payment mechanisms for the National Social Pension should plan for eventual cash out or withdrawal as the primary if not only use case. The use of digital payments for in-store purchases, bill payments etc is unlikely to become common in the short to medium term for social pension recipients, despite the aspirations of the financial services industry.

2.2 National Social Pension payments in Myanmar

As noted in Section 1, the Department of Social Welfare under the MSWRR is the lead government agency for implementing the National Social Pension Programme. At the MSWRR head office in Naypyitaw, the Social Protection Section under the DSW is the division responsible for communication, coordination and oversight of the overall implementation of the Social Pension Programme. The Social Protection Section (sometimes also referred as Social Protection Unit) was established in August 2017, particularly with the aim to implement the flagship cash transfer programmes of the National Social Protection Strategic Plan (2014). The Social Protection Section currently has 15 staff members[21] led by a director and oversees the overall implementation process of two main programmes – MCCT and Social Pension. According to DSW's nine-year Structural Expansion Plan, the Social Protection Section will become a full-fledged Division in FY 2017-18 in addition to the existing DSW Divisions such as Child & Youth, Women Development and Rehabilitation.

[18] Chamberlain et al. 2014.
[19] OTC payments are like remittances and can be conducted between two individuals without using a formal transaction account. OTC and vouchers are somewhat similar in that they both require bank branches or pay agents, and usually will need a secret code and ID card to cash out.
[20] FinMark Trust 2013; Gatti 2016; Htun and Bock 2017.
[21] SPS staff comprises 1 Director, 2 Deputy Directors, 1 Assistant Director, 4 Staff Officers, 1 Branch Clerk, 3 Senior Clerks; and 3 Junior Clerks.

Payments to date

The National Social Pension is a government funded nationwide programme which provides a monthly benefit amount of MMK10,000 to older persons aged 90 years and above[22]. It is an unconditional, universal cash transfer programme and one of the eight flagship programmes identified in the National Social Protection Strategic Plan (2014)[23]. There are plans to reduce the age limit to 85 years and above in the next fiscal year pending approval from MoPF.

Since the programme started in the financial year 2017/18, three quarterly payments (a total amount of MMK 30,000 for each recipient in each quarter) have been made manually in June, September and December 2017 to around 40,000 recipients:

1st Payment – Allotment (Registered): 36,142, Disbursed: 35,405

2nd Payment – Allotment (Registered): 39,442, Disbursed: 39,166

The discrepancy between allotment and actual disbursement is because some older people have passed away or overlapped registration of some beneficiaries. Officials in the Social Protection Section expected that there will be around 200,000 beneficiaries if the age limit is reduced to 85 years and above; about 400,000 beneficiaries if the limit is reduced to 80 years and above.

Recipient identification and registration

To implement the National Social Pension Programme – from beneficiary/recipient identification and registration to delivery of payments to the recipients – DSW relies mainly on the General Administration Department (GAD), a key department under Ministry of Home Affairs which is responsible for providing administration for the country's states/regions, districts, townships, wards and villages. At the subnational level, DSW currently has 15 state/region level offices, 12 district level offices (out of 74 districts) and zero offices at township and village level. Given that the DSW has limited presence, particularly at township level, it is a major challenge for DSW to implement the manual cash transfer to targeted beneficiaries, who are mostly from rural villages, without relying on the GAD. **Township GAD offices and ward/village administrators therefore play a central role in collection of beneficiary information and disbursing of funds.** It is estimated that National Social Pension payments are currently being delivered through 330 GAD township offices and over 16,000 village/ward administrators[24].

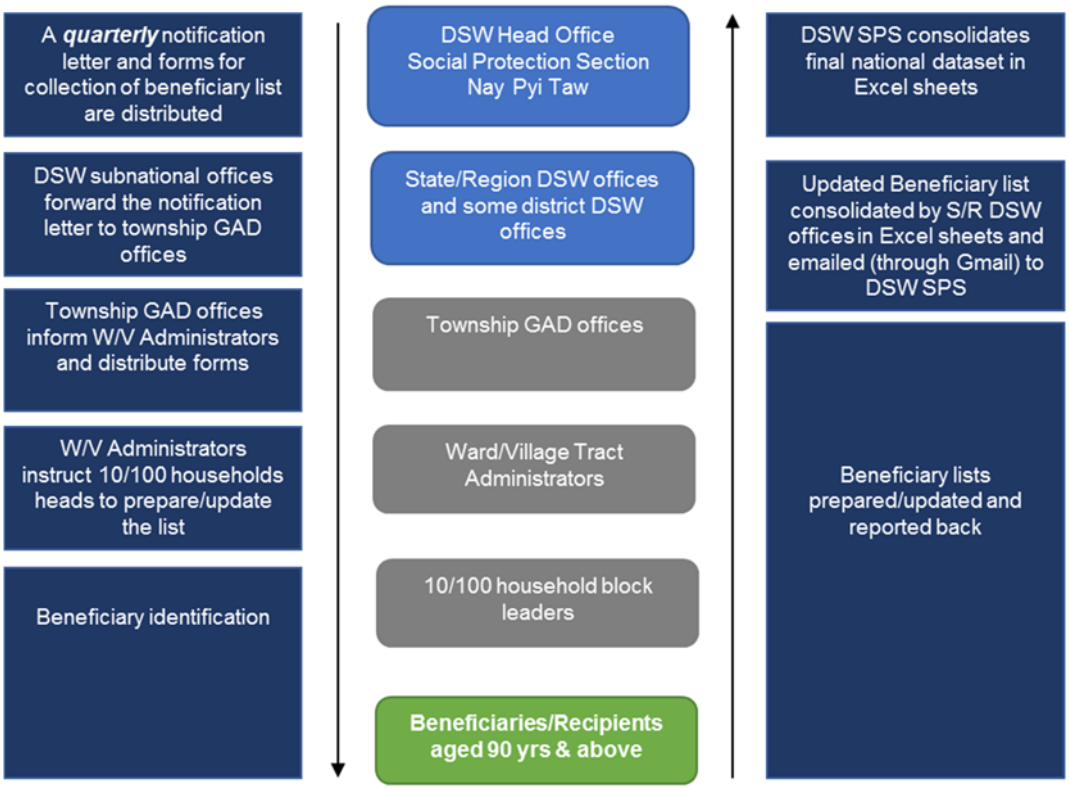
Figure 3 provides a summary of the beneficiary/recipient identification process. Beneficiaries are identified at village and ward level by village/ward administrators and household block leaders by using beneficiary identification forms which are distributed by the Social Protection Section to all township GAD offices through state/region DSW offices. The Social Protection Section (SPS) then consolidates the identified beneficiary lists from all states and regions into a national social pension beneficiary dataset.

[22] The number of older population identified in the 2014 Census stands as: 80 – 84 yrs: 335,576 people; 85 – 89yrs: 158,069 people; and 90+ years: 72,957 people

[23] GoM 2014.

[24] There is some ambiguity in how administrative processes work below the township level. There are a number of actors including Village Tract/Ward officials, Village administrators, and household block leaders (10/100 household heads). These have been referred to as 'Village/Ward officials' throughout this report.

Figure 3 National Social Pension – identification & registration process



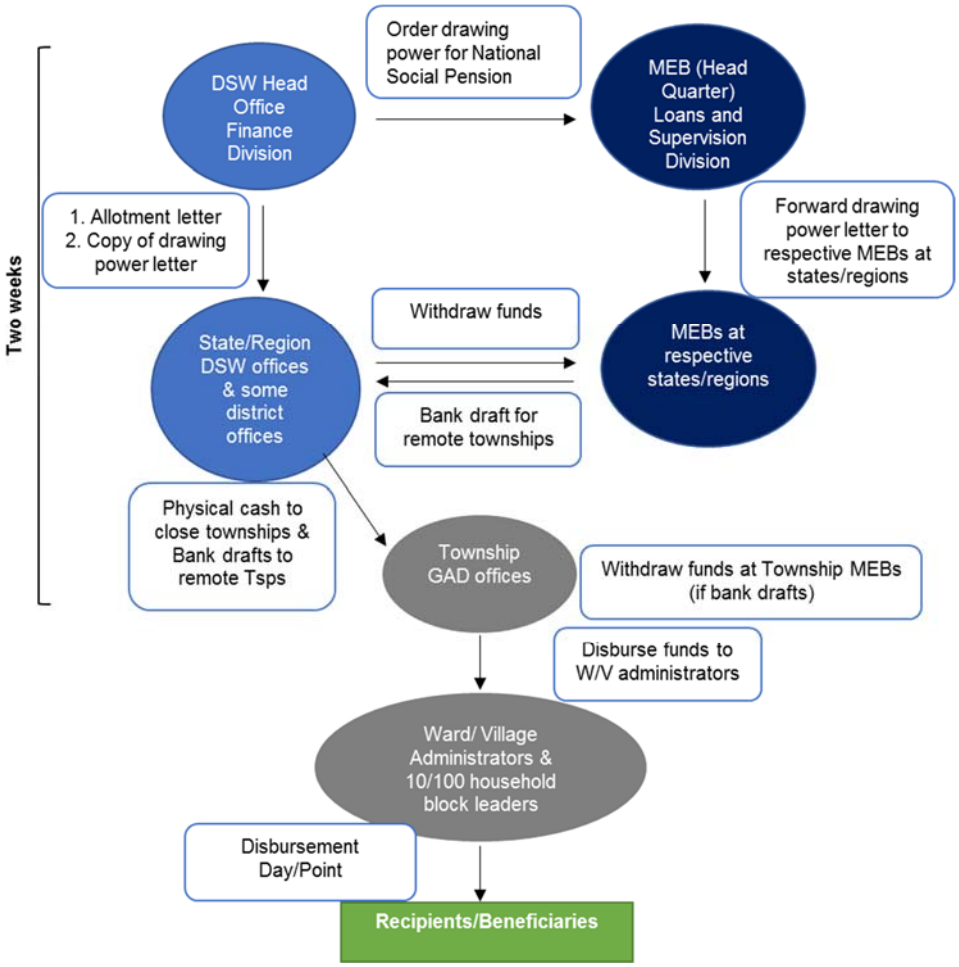
Payments process

Based on the number of beneficiaries identified and updated in every three months, DSW transfers social pension funds to all 330 townships through Myanmar Economic Bank (MEB)[25]. Detailed steps taken in distributing funds to recipients are illustrated in Figure 4 below. State/Region DSW offices are responsible for withdrawing funds from respective MEB branches; distributing it to respective township GADs; monitoring the payment delivery; and reconciliation of funds.

When funds reach GAD township level (in the form of cash or bank transfer at MEB), they are then distributed as payments to recipients in physical cash by village/ward administrators. Village/ward administrators need to attend regular meetings at GAD township offices twice every month. These meetings are not specific to the DSW programmes but a part of regular communication between GAD and village/ward officials. It is during these meetings that National Social Pension funds are disbursed to the village/ward administrators and records are updated.

[25] MEB is a government owned bank under Ministry of Planning and Finance. Besides its commercial banking services, it is also responsible for controlling government's ministries and departments accounts and disbursing civil service pensions.

Figure 4 National Social Pension – payment process



According to peri-urban village/ward administrators interviewed for this research[26], payment is made at each beneficiary's residence by village/ward administrators and household block leaders[27] under scrutiny of witnesses from community. Stakeholder interviews also suggest that method of delivery from village/ward administrators to recipients could vary from place to place: some would prefer setting a disbursement day and point but others might prefer delivering door-to-door with the support of household block leaders. Beneficiaries are required to prove their eligibility by providing the National Registration Card (NRC) or Form-66 (household registration form) for receiving the payment. Beneficiaries can also nominate proxies to receive payments on their behalf[28]. At the village and ward level, household block leaders communicate with beneficiaries about the date of payment, disbursement location etc.

DSW used payment receipts in the first payment and starting from the second payment, social pension booklets were introduced in addition to payment receipts. Each booklet includes beneficiary information such as name, NRC number, date of birth, address etc. When receiving the payment, the recipient or his/her proxy, Village/Ward administrators and two witnesses need to sign in the pension booklet as well as on payment receipt forms. In some villages 'social protection committees' have been formed recently to support the payments process[29]. Once the payment is

[26] One peri-urban township in Yangon, two village administrators and township GAD officials.
[27] Household block leaders are local level representatives covering 10 to 100 households in a village or ward.
[28] Rules regarding proxies can vary across locations and according to preference of township and village administrators. A proxy can be beneficiary's direct family member or his or her neighbour or in places like institution for elderly, it can be centre supervisor. It is also possible that there are different proxies between different payments
[29] The MCCT in Chin State relies on Social Protection Committees comprised of midwives, school teachers, religious leaders etc.

made at wards and villages, township GAD offices are responsible for examining the information and signatures filled in the pension booklets and payment receipt forms. These payments receipt forms are, then, sent to respective state/region DSW offices while social pension booklets are kept by respective Village/Ward administrators.

The current processes in beneficiary registration, management information systems and payments (payroll generation, payment disbursement and reconciliation) all rely on manual systems and checks. In order to utilise e-payment mechanisms such as mobile money, these systems would need to be strengthened by improving staff capacity, digitising information channels and databases and changing communication flows (see Section 3.2). Depending on the payment mechanism adopted, and the roles and responsibilities assigned to DSW versus GAD, the flow of funds can be digitised at any administrative level (see Section 2.3.3). The subsequent sections assess the feasibility of using manual cash payments versus mobile money taking the implementation processes described here as given.

2.3 Assessment of feasibility of mobile money

2.3.1 Enabling Environment

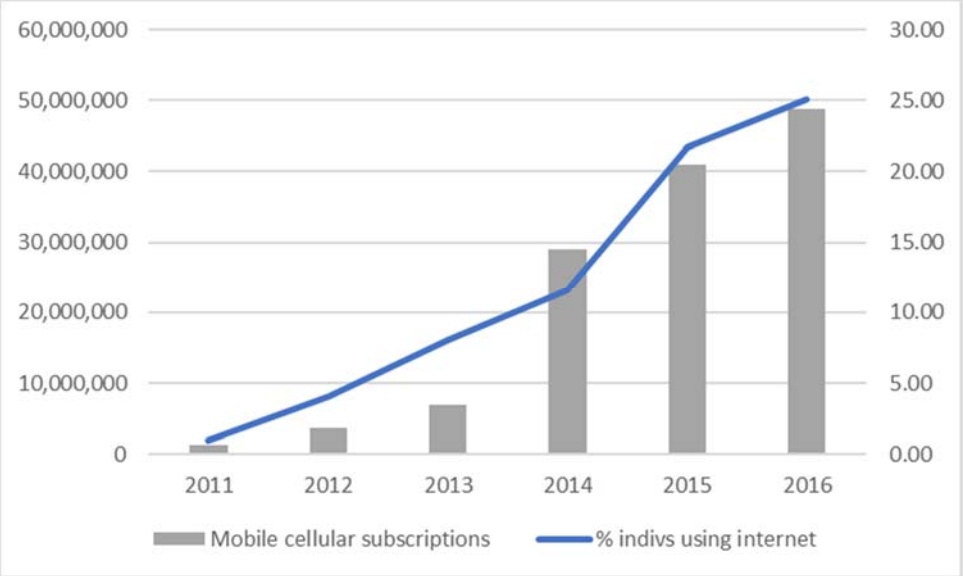
Here we discuss how government policy, legislation, regulation and competition in Myanmar could enable the use of e-payments for SP systems. Government policy and regulation should encourage competition and innovation amongst PSPs but also provide sufficient oversight to ensure the best outcome for social protection programme recipients.

Policy

Myanmar was one of the world's most isolated economies until 2011 when a democratically elected government replaced the former direct military regime. Since then Myanmar has implemented reforms that stimulated economic growth at an average rate of 7.9 percent during 2012–2015, with projections for the annual GDP growth rate for the 2017 financial year (ending 31 March 2018) set at 7.7 percent[30]. However, the percentage of people living below the poverty line is still at 25.6 percent and it has the least developed financial system in the region with minimal financial accessibility. Myanmar remains a largely cash based economy with only 23 percent of the adult population having bank accounts, and most financial services based in urban centres[31]. At the same time, inexpensive imported phones from China and affordable SIMs have allowed for very rapid mobile penetration and coverage since 2011: 90% of the population have mobile coverage with 51 million mobile connections[32]. A majority of mobile phone users have smartphones with estimates ranging from 63%[33] to 80% smart phone usage[34]. In 2016, 25% of individuals were estimated to be using the internet up from 1% in 2011 (see Figure 5)[35]. Myanmar therefore, holds potential in the use of e-solutions to bypass traditional modes of service delivery.

[30] ADB 2017a; 2017b.
[31] Htun and Bock 2017.
[32] Htun and Bock 2017.
[33] Helani Galpaya, Ayesha Zainudeen, and Suthaharan P 2015.
[34] Wayan Vota 2015.
[35] ITU n.d. (Percentage of Individuals using the internet)

Figure 5 Myanmar mobile phone and internet usage



Source: IDS, ITU

Globally, countries have adopted two approaches towards digital payments, particularly mobile money[36]:

- **Bank-led model:** the user needs to become a customer of the bank to use the financial service but the service is usually open to the subscribers of all mobile operators i.e. it is telco agnostic. In the bank-led model, such as Barclay's Pingit in the United Kingdom, a customer of Barclay's can use her mobile phone on any telecom network to make a payment or withdraw money.

- **Non-bank model:** the user does not need an actual account with a specific bank in her own name, but usually subscribers can only transact with other subscribers of the same financial service. In the non-bank model, there is no direct transaction between the person using the service and a bank. For example, in Vodaphone's M-PESA system in Kenya subscribers of Vodaphone can pay just about anyone with a PIN number.

From a commercial/market perspective, the dominant brand in the bank-led model is that of a commercial bank, while in the non-bank model the dominant brand is the telecom operator or a specialized non-bank mobile money operator. Regulatory authorities in different countries, typically central banks, decide which approaches can be used to deliver e-payments including G2P payments in the country. The fundamental question which regulators need to address is whether a mobile operator will be allowed to provide 'financial services': use the top-up credit for non-communication purposes, transferring money, allowing cash withdrawal, or earning interest. Most countries use only regulated financial institutions like banks to conduct financial services. In countries where non-bank model is used, special precautions are taken to ensure that telecom operators are not deemed to perform financial services in the sense of their laws and regulations[37].

Regulation

In Myanmar, the Central Bank of Myanmar acts as the main regulatory authority for financial services and there are two major Central Bank instructions concerning PSPs: The Mobile Banking

[36] Edwin Vanderbruggen and Altaz Dharamsi 2014.
[37] Edwin Vanderbruggen and Altaz Dharamsi 2014.

Directive (MBD) of 2013 and Mobile Financial Services (MFS) Regulation (2016)[38]. The Mobile Banking Directive allowed the use of mobile money by banks, advocating for a bank-led model of digital payments. Digital payment services offered by commercial banks such as KBZ are regulated by MBD. This regulation calls for stricter Know Your Customer (KYC) rules as customers of mobile money are effectively commercial bank customers. The MBD was followed by the MFS regulation of 2016 which allowed for mobile money to be provided using non-bank led models. The MFS regulates PSPs such as Wave Money, M-Pitesan and OK Dollar. MFS regulation requires non-bank entities to first set up a dedicated entity as an MFS provider. MFS regulations also support a tiered KYC policy which makes it easier to open an account or e-wallet with a mobile money operator. For instance, proof of ID is not required for registered Tier 1 customers conducting small-value transactions up to a maximum daily limit of MMK 50,000 (USD 37). Both MBD and MFS regulations allow for various types of transactions (P2B, P2P, G2P etc[39]) and require providers to offer wallet-level interoperability. In summary, the broader regulation in Myanmar allows private sector e-payments for G2P payments such as the National Social Pension. If the National Social Pension Programme is delivered through e-wallets operated under the non-bank led model (by MMOs), then it would be easier to register recipients as Tier 1 customers given that pension payment amounts are small (MMK 10,000 per month) and small cash withdrawals do not require a National Registration Card.

Recent years have seen related developments in the financial sector: in January 2017, the Central Bank removed previous restrictions on international payment processing companies, opening the market for further competition. This means that in addition to Myanmar Payment Union (MPU), other payment providers such as Visa can provide payment processing services for banks wanting to issue credit and debit cards. The removal of these restrictions is expected to increase competition and availability of e-payment instruments in Myanmar.

Existing review of evidence and stakeholder interviews indicate that the regulatory environment in Myanmar is conducive to the development and use of e-payments including mobile money. There is no indication of changes to current regulation although active enforcement of certain aspects – such as interoperability – is currently weak.

Competition

The Table below provides a snapshot of various Payment Service Providers (PSPs) currently operating in Myanmar and providing electronic payment instruments**.** It is interesting to note that that there is a wide range of PSPs functioning across the country, offering various payment mechanisms. Stakeholder interviews also suggest a convergence towards ‘mobile money’ platforms as most commercial banks are planning to launch their mobile money services in the near future. At the same time, there are no ‘aggregator’ companies currently operational in Myanmar that could allow transactions across platforms. Aggregators allow payment service providers (like mobile money operators or banks offering mobile banking) to easily integrate with entities (such as governments) or that want to send money to or receive money from end customers (such as social pension recipients)[40]. Aggregators facilitate interoperability, so that recipients can choose any payment product (a mobile wallet of any mobile network operator on any network, or an account of any bank, a mobile banking application), and the payer/originator is able to send funds through a single system and from a single account. However, in Myanmar, despite the absence of aggregators and a strong regulatory push towards interoperability, increased competition amongst various PSPs is expected to improve interoperability organically and over time, reduce transaction charges for end-line users.

[38] Regulation on Mobile Financial Services, FIL/R/01/03-2016. This falls under the Financial Institutions Law
[39] See Glossary for explanation of technical terms.
[40] See Glossary for explanation of technical terms

Table 2 Payment Service Providers in Myanmar

PSPs in Myanmar	Type of Payment Mechanisms
Commercial Banks: KBZ, CB Bank, AYA AGD, Inwa Bank and others	• Regular bank accounts with o Debit cards, pre-paid cards o E-wallets/internet banking • Over the Counter Transactions (OTC) or remittances (at bank branches and agents[41])
Telecom Mobile Money Operators (MMOs): Wave, M-Pitesan, MPT Mobile Money[42], Myanmar Mobile Money	• E-wallets (use on smartphone and feature phones) • Over the Counter Transactions (OTC) or remittances
Mobile Payment Platforms: OK Dollar, Ongo and others	• E-wallets (use only smartphones)
Remittance companies: TrueMoney, Western Union	• OTC transactions or remittances
Government Banks: MEB, MADB	• Regular bank accounts with o Debit cards, pre-paid cards o E-wallets/internet banking • Over the Counter Transactions (OTC) or remittances (at bank branches and agents[43])
Notes: - This list is not comprehensive but covers most major PSPs in Myanmar - We follow the classification of state vs commercial banks as noted by the Central Bank website - Commercial Banks rely on payment processing entities such as MPU, Visa and MasterCard to issue bank cards - Other companies such as Red Dot, 123 and 1-Stop act as a payment acceptance networks in Myanmar	

As noted in Section 2.1, financial inclusion is not the primary objective of the flagship cash transfers in Myanmar's National Social Protection Strategic Plan (2014). Globally the introduction of e-payments in social protection programmes has not yet yielded the desired effect on financial inclusion: most programme beneficiaries overwhelmingly 'cash out' a majority of their transfer amount and make little use of fully functional bank accounts or e-wallets to perform other transactions such as savings[44]. Nevertheless, efforts to improve financial inclusion, especially through digital finance, can support the Government of Myanmar in its transition from manual to digital payments for all types of G2P payments, including social protection programmes. The UNCDF in collaborating with Central Bank on the One Household One Account Initiative (OHOA) – which aims to have a universal, digital, free interoperable account for all households in Myanmar[45]. The initiative is still at a very early stage but its potential implementation could further encourage the take up of digital payments nationally and more specifically, make it easier for Government of Myanmar to use various e-payment mechanisms to deliver social protection payments.

2.3.2 Accessibility

Here we discuss the accessibility of payment mechanisms from the point of view of the beneficiary or recipient of the payment. This means the cost of accessing payments must be low; payments

[41] Agent networks are used by only some commercial banks
[42] MPT Mobile Money is expected to become operational from March 2018 onwards.
[43] Agent networks are used by only some commercial banks
[44] Francesca Bastagli et al. 2016; ISPA 2016.
[45] UNCDF 2017.

mechanism should be appropriate and suit recipients' needs; and the payment process should ensure recipient's dignity and comfort.

With reference to the National Social Pension, it is important to first understand how payments are delivered at the village and ward level. Existing evidence suggests great variability in where and how payments are disbursed by village/ward officials (see Section 2.1). There is no data to estimate whether majority of payments are received by proxies or direct beneficiaries. Stakeholder interviews suggest that most National Social Pension recipients are immobile and unlikely to leave their homes. At the same time, experiences from HelpAge's Dry Zone Social Protection Project suggest that around half of the payments are collected directly by the beneficiaries.

An important constraint to our assessment for accessibility is the lack of primary research with recipients and social protection programme beneficiaries. We therefore rely on information provided in stakeholder interviews ranging from PSPs based in Yangon to implementing partners at the township and village level such as GAD officials and village tract administrators. This information is supported by field experiences of the HelpAge team implementing the Dry Zone Social Protection Project targeted at 85 years and above.

Costs

The current manual mechanism of delivering cash in hand through village/ward officials imposes little *additional* monetary costs on village/ward officials, and none on any recipients who are immobile and receive payments at home. For payments disbursed at payment points, costs could depend on travel distance and time although these are likely to be minimal if payments are made at the village level. The alternative to manual cash payments – mobile money – requires ownership of mobile phones[46]. Aggregate level data does indicate that mobile phone ownership in Myanmar is high (see Section 1) although it is likely that poorer and/or older recipients are less likely to own phones. Also, mobile money in Myanmar currently offers limited accessibility to recipients at the village level in remote rural areas given the dearth of pay agents in such locations. If recipients are expected to travel to township centres to cash out money, this will impose greater transport and time costs on recipients. However, telecom network coverage in most states and regions is now good and pay agents are increasing at a rapid rate. Stakeholder interviews suggest that there are around 30,000 mobile money agents in the country right now, compared to less than 5000 agents 18 months ago. Furthermore, PSPs such as MMOs are keen to expand coverage across Myanmar and could be willing to recruit additional agents for specific government programmes.

There are typically two types of transaction charges for mobile money: transfer fees and withdrawal fees. The transaction fees charged by MMOs for P2P transactions are largely uniform with some differences for registered 'e-wallet' users and non-registered OTC customers. As with experiences in other countries it is likely that the fee structure for social protection programmes (G2P payments) is negotiated individually between government and PSPs, with no additional cost passed to the beneficiary.

Another consideration is costs to DSW and GAD of delivering manual payments versus mobile money payments. This depends on many factors and includes clear trade-offs between improving coverage and quality of service delivery. The extent to which M&E and grievance redressal are incorporated within the social protection programme would also affect these costs. Mobile money can reduce certain administrative costs such as communication (through text notifications), payroll reconciliation, auditing, M&E and even grievance redressal through automated means. However, administering a mobile money payment mechanism may require additional staffing and expertise at DSW to manage PSP contracts, oversee quality of service delivery and liaise across teams,

[46] Not necessarily smart phones as mobile money can be used on both feature and smartphones.

bringing additional costs to implementation. Adopting mobile money may reduce costs of expansion driven by economies of scope and scale, especially of DSW aims at harmonisation of cash transfers in the future (see Section 2.3.4). At the same time, existing evidence suggests that for humanitarian e-transfer schemes incur a much higher cost at start-up, especially at the first time of implementation, but have reduced costs for disbursement later. It is only after several transfers that the reduction in recurrent costs starts outweighing the heavy one-off costs[47].

Appropriateness

When considering appropriateness of payment mechanism, we focus on literacy including digital literacy and adoption of technology. Manual cash payments require little change in the behaviour of recipients and are easy for most beneficiaries to adopt – including older people, women, less literate communities etc. In the context of Myanmar, a vast majority of the population is literate in Myanmar language (95% urban; 86% rural)[48], although older people, especially women tend to be less literate (69% of people aged 80 years and above are literate[49]). Census data also shows that a vast majority of older people live in households including younger family members (only 8% of older people aged 60 years and above lived alone). This suggests that literacy per se may not be an issue if older people rely on proxies to access payments. It is important to note however that literacy in English is poor, and that existing digital platforms in Myanmar increasingly make use of Myanmar language to increase take-up amongst users. The issue of literacy is further complicated by the diversity of languages and dialects across Myanmar.

Furthermore, digital literacy and adoption of new technology is a key concern for intended beneficiaries. The use of mobile money requires greater levels of digital literacy and may be easier to adopt if the payments are received by proxies instead of older recipients. This may require training of both programme staff, as well as an initial 'hand holding' period where recipients become familiar with using mobile money. The adoption of mobile money also depends on ownership and usage of mobile phones. Existing data from 2015 suggests that ownership affects mobile phone usage – owners tend to make more livelihood related calls and express greater demand for information services[50]. At the same time, mobile phone access varies less by gender but more by income[51]. As noted in Section 1, mobile phone usage has increased exponentially during the last five years and it is difficult to assess current user behaviour and predict changes, especially amongst social protection recipients without new research. The uptake of mobile money in many countries (particularly across Sub-Saharan Africa) by all sectors of society including the poor, the illiterate, and even those without mobile phones demonstrates that the ability of poor people to adopt new technology should not be underestimated[52].

A related concern with payment mechanisms is ease of access for recipients. The current system of manual payments provides easy physical access as payments are made at the village level, although it does not provide *choice* of location or timing to recipients. The accessibility of mobile money depends on the distribution of pay agents, as well as interoperability across payment PSPs (See Section 2.1). Stakeholder interviews suggest that the presence of pay agents at the village is still low and variable, but on the rise. This implies greater choice for recipients. At the same time, there is little interoperability in terms of transfers across e-wallets of various PSPs which implies less choice for recipients as they have to remain within a payment ecosystem.

[47] Clare O'Brien, Fidelis Hove, and Gabrielle Smith 2013.
[48] DoP 2015.
[49] MOLIP 2017.
[50] Helani Galpaya, Ayesha Zainudeen, and Suthaharan P 2015.
[51] Helani Galpaya, Ayesha Zainudeen, and Suthaharan P 2015.
[52] ISPA 2016.

Finally, an important consideration for accessibility of payments for older people is the extent to which recipients are mobile and/or disabled. Amongst the group of older people, the National Social Pension targets the very elderly who are more likely to be immobile and suffer from age-related disability. As mentioned earlier, data on socio-economic characteristics of National Social Pension recipients is not available. However, Census data[53] indicates that 23% of people aged 60 years and above have at least one form of disability. All types and severity of disabilities increase rapidly with advancing age: among those aged 80 and over, 43% have some form of disability and 16% report having a moderate or severe disability[54]. The prevalence of disability is higher in rural areas and amongst older people in the lowest wealth quintiles. This suggests that manual cash payments, handed to recipients in households is more feasible than mobile money. At the same time, disability and mobility are less important considerations if payments are already accessed by proxies or trust between the recipients and proxies is high.

In general, the adoption of mobile money for social transfers can be quicker and easier as the general usage of mobile money increases and there is greater adoption of e-payments across the society.

Transparency, rights and dignity

Under the current system of manual payments, communication between DSW and recipients is mediated by village/ward officials. Complaints about the Social Pension Programme can be made by calling DSW at the Union level or their State and Region offices. It is not clear if recipients can raise complaints regarding village tract officials or even proxies who may be receiving payments on their behalf. This system offers no choice to recipients and no avenue to independently raise grievances about the payments process. This is exacerbated by the fact that recipients are of a very advanced age and likely to be immobile with potentially age-related disabilities. The current payments system offers little independent oversight of stakeholders involved in the payment process posing significant risks of fraud and corruption – although it is important to highlight that there is insufficient evidence to suggest whether these risks are realised. There is also insufficient evidence to suggest proxies may not be providing full amounts to intended recipients. Anecdotal evidence does suggest that the risk of direct leakage is low, given the relatively small amount of money and social norms around respect for older people. However, it is possible that beneficiaries face social pressures to make payments to their proxies for delivering payment; to local officials as gifts or donations to temples etc.

In comparison to in-kind transfers, unconditional cash transfers such as social pensions are often seen as treating recipients with greater dignity by allowing greater choice in how the money is used[55]. Whether a specific payment instrument – manual cash versus mobile money – allows for greater dignity is debatable. In the context of social pensions in Myanmar, where older people hold great respect amongst communities, village/ward officials can be seen as offering respect by visiting households to deliver cash. Stakeholder interviews suggested that village/ward administrators are keen to take up the responsibility of providing cash payments to older people, as this allows them gain respect from the recipients and the community by being viewed as they are helping vulnerable people. At the same time, recipients may feel that Village/Ward officials are doing ‘a favour’ and may be less likely to make a complaint if any issue arises. Given that the social pension is not a poverty-targeted cash transfer, we expect less stigma associated with receiving this transfer. More primary data, including survey data and qualitative data at the village/ward level is needed to better assess this question.

[53] The disability questions in the Census measured the ability to perform functions of everyday life by recording if a person had difficulty in seeing, hearing, walking and remembering or concentrating, aligning with the Department of Social Work’s classification.
[54] MOLIP 2017.
[55] ECHO n.d.; Susan Angle 2015.

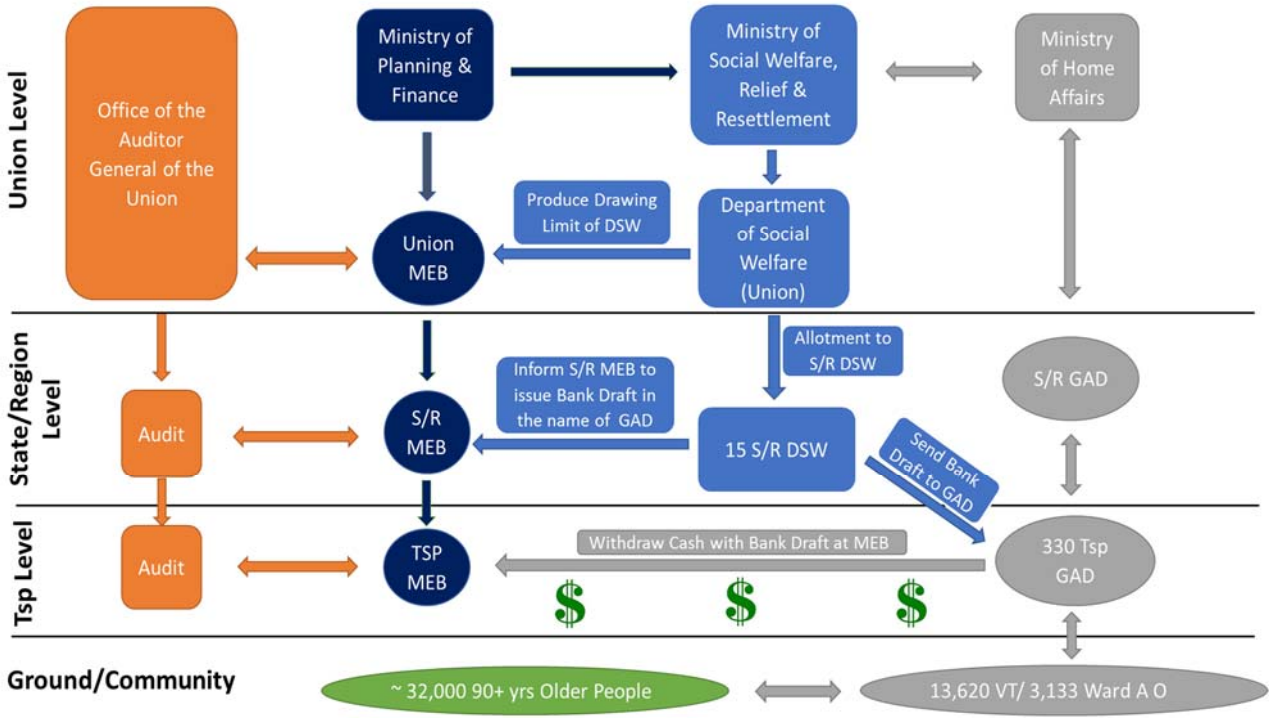
Overall, if the National Social Pension expands to include those aged 85 years and above, the increase in scale of payments is likely to affect the accessibility of manual cash payments in terms of higher costs to village/ward administrators and poorer accuracy of payroll data. In this instance, mobile money payments could be more accessible provided adequate coverage at the village level, and greater interoperability across PSPs.

2.3.3 Robustness

Here we assess the robustness of payment mechanisms in terms of reliability, governance and security. Social protection payment mechanisms should reliably deliver transfers on a regular basis to the correct recipient. Governance includes oversight of payment processes, and clear roles and responsibilities of various actors. Security relates to ensuring the recipients receive the correct amount and that recipients' data remains private and confidential.

The figure below illustrates the general flow of funds for the National Social Pension from the union to township level, including communication flows between different stakeholders (MSWRR, MOHA, MoPF, village/ward officials and recipients).

Figure 6 National Social Pension - flow of funds



Reliability

National Social Protection payments are made on a quarterly basis – a total amount of MMK 30,000 for each recipient in each quarter. The current manual mechanism of delivering National Social Pension payments is reportedly reliable in terms of no reported delays at various stages of the payment process – from Ministry of Planning and Finance to MEB at the union level and then MEB transfers to state/region level and township level. It is difficult to assess the efficiency of 'last-mile' delivery as no data was collected from beneficiaries. Furthermore, it is not clear what expectations recipients have at the village level in terms of dates for payment. There were also no reported discrepancies at the union level, and the transfer of funds to and from MEB has so far been a smooth process. As illustrated in Figure 4, it takes two weeks for National Social Pension funds to reach township GAD offices from the DSW MEB account at the union level. Once these

funds reach the township level, the delivery of payments to recipients varies. Without access to consolidated administrative data or village-level research, it is not possible to determine how reliable payments are in terms of fixed timings for disbursement. Based on stakeholder interviews, we can assume that household block leaders maintain regular communication with recipients on the timing of disbursements.

In comparison to the manual system of payments, mobile money can provide greater reliability in terms of disbursement dates and timings. Experiences of current organisations using mobile money suggest that given the accuracy of payroll data (provided by the organisation), the flow of funds from MMOs' bank account to recipients' e-wallets is almost instantaneous. This automated process also allows organisations to track disbursement of funds and query issues in disbursement. It is important to note that the use of an external PSP means that if payments are made into accounts or e-wallets, then information about account usage and money withdrawal may not be available to the payment administrator (NGO or government). Once the funds reach a recipients' mobile money account/e-wallet/bank account[56], they are subject to client privacy and confidentiality rules stipulated by the Central Bank. Unused funds sit as deposits in accounts and cannot be transferred back to the payment administrator.

An important consideration using mobile money is the liquidity of pay agents i.e. if pay agents have sufficient cash balances to serve all recipients. Experiences from social protection programmes using e-payments (mobile money or bank cards with agent cash out) globally suggest that liquidity management especially in remote and rural areas could pose to be a significant challenge. In Myanmar, all MMOs and banks have internal controls on pay agents and can manage liquidity issues through respective distribution networks. However, this usually requires fixed disbursement locations and times, requiring recipients to visit agents at specific times. This can be a suitable option for National Social Pensions if recipients/beneficiaries rely on proxies who are mobile, and payments are released on fixed dates with direct and instant communication between DSW and recipients. Liquidity issues could prove to be a challenge if there are insufficient pay agents at the village level and if the scale of the programme increases to serve a larger population. At the same time, mobile money could allow more frequent transfers (monthly versus quarterly) given reduced administrative burden and this could mitigate liquidity issues.

Governance

Within DSW, the core team responsible for implementing all social protection programmes, including the National Social Pension is the Social Protection Section. The Social Protection Section is a nascent team with a significant workload which has increased in recent months with the simultaneous roll out of both the National Social Pension and the MCCT (see Section 2.2). Currently there is no operational manual for the National Social Pension so staff roles and responsibilities are clarified internally. DSW's oversight on the implementation of the National Social Pension – including registration, MIS, payments, M&E – extends only till the state/region level where DSW has physical presence. Beyond that, DSW has to rely on GAD for implementing the programme. The current governance arrangements including oversight of the manual payments process relies on established organisational hierarchies and agreements with MEB and GAD. A possible challenge for future payments is whether these arrangements will be sufficient if the programme is extended to include more recipients (see Section 2.2).

A switch to mobile money payments for the National Social Pension would require considerable changes in the governance arrangements, combined with significant added capacity at all administrative levels for DSW in the short and medium term. The adoption of mobile money may

[56] This is different in the case of using OTC payments where payments are time bound (secret code expires) and the payee knows when a payment is cashed out. OTC payments do not involve e-wallets or accounts.

still require reliance on GAD township offices and village/ward administrators if there is no DSW presence at the community level. More importantly, in outsourcing the payments process, DSW would need to invest in continuous management of its relationship with the selected PSP(s). This includes communication around payment dates, payroll reconciliations, audits, M&E and grievance redressal. The extent to which an external PSP would be involved in various implementation processes needs to be determined ex-ante, specified clearly in a well written contract and enforced throughout implementation. The experience of organisations implementing current mobile money cash transfers in Myanmar validates this requirement.

Security

The current manual payment mechanism is functional but inadequate in terms of sufficient checks and balances on the quality of service delivery and security of payments. Although there are no reported instances of fraud or corruption at the union level, the current system of grievance redressal, M&E and administrative data management (MIS) does not allow for detection of fraud. It also relies on self-reporting so that recipients have to initiate complaints either through Village/Ward officials or through directly contacting state/regional DSW offices. Without access to village level data, it is not possible to estimate the existence or prevalence of malpractice in the manual payments process. Nevertheless, there are several ways in which the existing manual system of cash payments can result in leakages and fraud:

- **Transportation of cash:** the current system relies on GAD officials withdrawing cash at MEB branches at the township level. This cash is transported to GAD office, stored and distributed to village/ward officials during meetings. Cash is then transported by hand to the village level. The exchange of cash at several levels poses security risks to individuals as well as risks of external or internal thefts[57]. These are likely to increase if the programme is expanded by lowering age of eligibility.

- **Disbursement point:** the current system of disbursement is varied with payments made at home, at selected locations, and involving a large and varied number of stakeholders including village/ward administrators, household block leaders, social protection committees, proxies etc. The current system requires social pension booklets and payment receipt forms to be signed by recipients or proxies when receiving payments amongst the presence of two witnesses (see Section 2.2). This entails a high risk of collusion amongst witnesses to pressure recipients to sign forms. In tightly-knit communities, members of social protection committees, Village/Ward officials and household block leaders are all likely to know each other. There is also a risk that proxies, once approved by recipients, receive payments and do not hand over the full amount to intended recipients.

- **Recipient data:** Households, Village/Ward officials, or household block leaders may not accurately report changes to the beneficiary list in terms of enrolment of new beneficiaries and exit (death) of others. It is also possible that a manual collation of information inadvertently results in errors. This could result in inaccurate payroll and therefore payments to ineligible recipients or ghost recipients.

- **Payroll reconciliation:** this is currently done at the state/region level at DSW offices who examine payment receipt forms and a manual system of reconciliation could result in errors. In doing reconciliation, there are no systems in place to check that the signatures are valid.

[57] Transferring large bundles of cash is widespread practice across Myanmar with both NGOs and private sector companies and there are few reported incidents of attacks on couriers or fraud. Nevertheless, this has not been researched or investigated systematically.

It is important to emphasise that these are potential risks – and existing evidence in Myanmar does not allow us to investigate if these risks can be realised or are realised in the National Social Pension Programme or in other social transfers. Furthermore, there is little representative research on how local level community dynamics including trust in local officials, inter-household dynamics, and social norms affect the use of social transfers such as cash transfer programmes.

The use of mobile money to deliver Social Pensions could provide greater security in terms of checks and balances on the payments made to recipients. Mobile money payments rely on payroll information linked to unique IDs (typically NRC numbers and/or mobile phone numbers) and do not require personal information such as names and addresses of recipients. This ensures greater security of recipient data. A regulated MMO will be required to maintain high standards of data security for customers by the Central Bank, but these systems should be audited as well by the DSW. Payments are made directly to recipient accounts or e-wallets – this means that there are fewer 'layers' where leakages could occur. All MMOs have customer hotlines where issues with pay agents can be reported independently. Nevertheless, the use of mobile money does not alleviate all security concerns:

- **Use of transfer:** The adoption of mobile money may increase reliance on proxies who are typically younger and more digitally literate household members. If proxies withdraw cash on recipients' behalf then the risk of informal payments (to proxies) remains.

- **PIN privacy:** Typically, 'cash out' or withdrawal of payments in mobile money (e-wallets) requires the user to input a PIN on a mobile phone with a registered SIM card. The possession of this SIM card and knowledge of the PIN provide the security needed against fraud. Stakeholder interviews suggested that a key challenge with existing mobile money users was user behaviour regarding confidentiality of PINs and passcodes – it is not uncommon for recipients of social transfers to provide pay agents with all authentication details including PINs which should be kept private. Although this type of pay agent fraud is not yet prevalent and could be reported to MMOs through hotlines, this may increase as digital literacy improves across communities. Organisations delivering services or transfers through mobile phones have also found issues with users in rural areas losing SIM cards. However, even with a lost SIM card, recipients can regain access to accounts, and a new holder of a SIM cannot get access without the PIN.

- **Reliance on third parties:** The transfer of money in many social programmes, implemented by various organisations, relies on a high level of trust amongst community members and in state systems. The latter could vary across states and regions and across various communities. The use of mobile money does not necessarily reduce recipients' reliance on proxies to collect payments; on pay agents to troubleshoot technical issues; and on Village/Ward officials to inform payment times etc. This reliance cannot be reduced unless communication and information systems are fully automated; recipients have high levels of digital literacy and risk awareness; and recipient preference for cash is reduced.

- **Exit from programme:** DSW would continue to rely on GAD to update records about beneficiary/recipient deaths. If there is collusion between recipient families and local officials so that deaths are not reported, then payments will continue if proxies are nominated as recipients. This issue can potentially be exacerbated through use of mobile money if village officials are not colluding and switching to e-payments means that they have less regular contact with recipients to verify records.

2.3.4 Integration

Here, we assess how payment mechanisms affect a social protection programme's relationship to the broader social protection system, including cross-sectoral programmes. This includes integrating recipients into the financial system.

Harmonisation of cash transfer programmes

DSW recognises the need for harmonisation of cash transfer programmes implemented under the National Social Protection Strategic Plan. World over, as social protection programmes reach maturity, there are greater efforts by governments to clarify department mandates, consolidate capacity and seek linkages across social protection programmes. The sector in Myanmar is at a nascent stage, with the first two cash transfer programmes starting implementation in 2017 under a newly formed Social Protection Section at DSW. Currently, implementation processes including payment systems for the MCCT and National Social Pension are separate although both rely on GAD to make payments at the village/ward level (see Annex D). Even within these programmes, there is significant variation in how payments are delivered at the village/ward level (see Section 2.2). There is an expectation that harmonisation of programme processes will occur in the long term but short to medium term priorities include expansion of current programmes and strengthening of existing payment mechanisms.

The use of a manual payments system allows for less harmonisation across cash transfers although this can be achieved to an extent if DSW has a large cadre of village level staff to disburse payments to various recipients. It can also be argued that this could help build up DSW capacity at the sub-national level and increase trust and communication between government and community members.

The use of mobile money allows for greater and easier harmonisation across cash transfers provided that management information systems are automated and recipient data is linked across programmes through unique identifiers such as NRC. The use of mobile money then allows for greater flexibility in the timing and delivery of payments, putting less administrative burden on DSW staff at all levels. Once an effective mobile money mechanism is in place for one cash transfer programme, it can be adopted relatively easily across other cash transfer programmes. This is particularly the case when mobile payments use the same delivery/disbursement infrastructure as well as similar PSPs.

Financial Inclusion

A financially inclusive payment delivery mechanism usually provides recipients with a transaction account. This links them other financial services such as insurance, credit, savings, and remittances. The approach of social protection cash transfer programmes to financial inclusion can be categorised in two stages: (1) savings enabled and (2) savings encouraged. The savings enabled stage provides some form of transaction account that enables recipients to store some or all of their payments for future use (they are not all able to make further deposits). Savings encouraged stage actively tries to change recipient behaviour towards savings.

As noted in Section 2.1, financial inclusion is not the core objective of any of the eight flagship cash transfer programmes in the National Social Protection Strategic Plan. Payment mechanisms for the National Social Pension, in particular, should focus on immediate need for cash out or withdrawal. Nevertheless, the use of savings enabled mechanisms can improve financial inclusion of Social Pension recipients. This is more likely in instances where payments are received by proxies. The use of manual cash payments does not enable or encourage savings or use of other financial

services. The use of mobile money through e-wallets[58] can enable savings, with higher amounts expected if PSPs are commercial banks and lower amounts if PSPs are mobile money operators. Financial inclusion is also more likely if mainstream financial instruments are used: e-wallets issued by MMOs tend to be limited payment instruments in comparison to e-wallets/accounts operated by commercial banks (see Section 2.1).

Existing evidence suggests that typically, when social grant recipients are provided with a transaction account, they withdraw the full amount of the transfer in a single transaction[59]. However, the National Social Pension is not a poverty-targeted social protection programme, so the income profile of recipients will vary, making it difficult to estimate how payments will be used. It is possible that payments are not withdrawn in full and that the provision of an e-wallet or bank account allows recipients to save money securely and efficiently. At the same time, Finscope survey data from Myanmar (2013) [60] suggests that formal financial inclusion is very low in Myanmar: only 4.4% of adults have a savings account; and 17% of the adult population has a bank account. Of the adults interviewed, 28% had savings and of these, the majority saved at a secret place in their homes or in the form of livestock or gold. This suggests that using a savings enabled account in itself may not translate into widespread gains in relation to financial inclusion.

[58] OTC transactions using mobile money will not allow savings or deposits so are not 'savings enabled'.
[59] ISPA 2016.
[60] FinMark Trust 2013.

3 Way forward

3.1 Lessons learnt

Cash transfers are increasingly an important part of social protection policies in developing countries. A decision on the appropriate payment delivery mechanism for social protection cash transfers needs to take into account the country context, existing delivery options, objectives of the programme, recipient characteristics and the scale and scope of the programme[61]. Experiences from implementing cash transfers elsewhere suggest that the appropriate payment mechanism for a social protection programme is usually not a one-size-fits-all and may involve a combination of several mechanisms. Understanding contextual limitations requires assessment of the country's readiness for e-solutions. This may entail assessment of the financial infrastructure (i.e. ensuring sufficient payment devices such as POS terminals and a robust agent infrastructure); and the technical capacities such as a high-quality MIS required to transition towards e-payments.

Transitioning from manual cash payments to e-payments presents several challenges for social programmes**.** However, there is a consensus that e-payments are a promising way to deliver necessary aid to beneficiaries with much more flexibility, speed, reduced costs and, reduced leakages in the system and transparency[62]. The transition process normally starts with pilots of e-payments in certain areas and scaling up is decided upon based on the performance of the pilot. During the transition, certain programmes might retain some payments (especially in remote areas with poor network access) in cash, while testing the performance of one or more payment mechanisms selected areas. The e-payment mechanism may involve a limited purpose instrument specifically catering to the needs of the programme or a mainstream financial account.

Our review of international evidence suggests that no single payment mechanism is perfect and trade-offs exist between objectives and competing agendas of different stakeholders that influence the performance and quality of selected payment mechanisms (see Box 1 and Annex C).

[61] Gabrielle Smith et al. 2011.
[62] Gabrielle Smith et al. 2011; Jamie Zimmerman, Kristy Bohling, and Sarah Rotman Parker 2014; Muralidharan, Niehaus, and Sukhtankar 2014.

Box 1 BISP experience of e-payments in Pakistan

The Benazir Income Support Programme (BISP) is a poverty targeted cash transfer programme initiated in 2008 by the Government of Pakistan and operating across all districts of Pakistan. BISP's broader objective is to support the chronically poor and vulnerable households by providing them a minimum income support package. It currently serves over 5 million beneficiaries, through a network of 423 offices and over 2000 employees, operating on an annual budget of $1.15 billion. **BISP started distributing cash payments manually, experimented with various e-payment options and has gradually transitioned to a new payment model including multiple payment mechanisms**.

- BISP's choice of e-payment mechanism has focussed on **OTC options rather than e-wallets**, given low levels of literacy and low usage/ownership of mobile phones amongst target recipients (primarily adult women). BISP started disbursement to its beneficiaries through Pakistan Post using Money Order system in 2008. In 2010, BISP carried out a pilot with NADRA using Smart Card (magstripe), in 2011 with Banks and Telecoms using mobile banking as payment channels. It moved to debit cards in 2012 and at present 94% of BISP beneficiary payments are made through Benazir Debit Card (chip and PIN). In 2017, BISP moved to a "New Payment Model" involving multiple payment mechanisms citing a number of challenges with relying on debit cards.
- BISP initially signed banking contracts with **six commercial banks** on non-competitive basis in 2012 for 18 months and these were extended till the end of 2017[63]. In 2015, the BISP Board approved hiring of new payment agencies on competitive basis. A 'New Payment Model' The new model was developed after consultation with external and internal stakeholders, including Banking and Branchless Banking industry, Telecom Companies, 1 Link, NADRA and State Bank of Pakistan. It was approved by BISP Board and the Finance Division in 2017; and was subsequently piloted in 2017 with the national roll-out planned for 2018[64].
- Under the New Payment Model, BISP aims to make payments **'beneficiary friendly' and contract PSPs competitively** to improve transparency and encourage competition.
    - The New Payment Model allows for multiple withdrawal options, through biometrically enabled ATMs, bank branches, pay agents and even door-step delivery. It includes a fully integrated complaint management as well as online reconciliation and reporting.
    - It also aims to incentivize banks to push payments to beneficiaries while bank commissions will be paid after payment delivery to beneficiaries. This model aims to eliminate banking floats, and introduce sliding scale commissions for PSPs.
    - BISP's centralized payment processing system through which all biometric authentication requests will be routed, will enable online reconciliation of all payments. Thus, all data related to withdrawals, claim settlements, service charges will be accessible online. This biometric authentication helps to ensure transparency. Additionally, in order to ensure effective communication, PSPs will be required to offer one-time free of cost SIM to beneficiaries.

Source: BISP website[65] and stakeholder interviews

Myanmar is relatively new to the use of e-payments for social transfers but some programmes have started to deliver e-payments, using mobile money e-wallets, in both urban and rural areas. This includes the WFP funded cash transfer to IDPs in Kachin State (See Box 2), as well as Save the Children funded cash transfers in Shwe Pyi Thar and Delta region. These programmes are at an early stage of digitising their payment processes but their experiences suggest that mobile money *can* be used to deliver social transfers in Myanmar. As with most new systems, their experiences suggest that considerable investment must be made in setting out the correct Request

[63] Financial regulation in Pakistan only allows for 'bank-led' models of mobile money. Under this model, BISP had the choice of using (1) Branch less banking where one bank partners with a telco (for example Easypaisa) (2) Teleco agnostic model where one bank partners with any telco (for example UBL and Summit Bank) (3) Inter-operable model with multiple banks and telcos.

[64] As the contracts with commercial banks expired at the end of 2017, BISP has contracted the government owned National Bank of Pakistan in the interim phase to deliver payments through multiple channels (bank branches and pay agents).

[65] BISP 2017. http://bisp.gov.pk/

for Proposals, contracting PSPs and negotiating contracts. In terms of operationalisation, registering recipients for e-wallets requires support of ground staff; and automated record systems (MIS) are needed to generate payment lists. This requires communication and coordination with PSPs. There also needs to be an effective M&E system to identify challenges at the community level. Early reports suggest that there is an initial learning period for recipients over the first few payment cycles but most recipients are quick to adapt to e-payments. Liquidity challenges are also rare and usually disappear as payment cycles become regular and PSPs continue to communicate with pay agents about (fixed) disbursement dates. Common challenges include recipients forgetting PIN numbers and revealing PINs to agents so preventing this requires greater training and communication at the community level.

However, it is important to note that lessons learnt from these programmes may not directly applicable to programmes implemented and funded by the government as NGOs and international organisations rely on internal staff and systems to deliver payments. Furthermore, the scale of these payments is relatively small and programme implementation is closely monitored and supervised by internal staff, often with intensive training provided to staff and beneficiaries. These programmes are also targeted at a specific set of beneficiaries – refugees residing in tight-knit communities, young pregnant women and mothers – whose digital literacy and mobility is very different from older people or disabled people.

There is also some experience within the Government of Myanmar in using e-payments. This includes the Government Pension delivered to retired government employees over the age of 60 years through Myanmar Economic Bank, currently estimated at around 700,000 recipients. Most pensioners have bank accounts with MEB as they receive their salaries in these accounts. Once they start receiving pensions, MEB provides them with the option of manual cash withdrawals at bank branches using paper verification or smart cards; as well as mobile money through Myanmar Mobile Money network which reportedly has over 2,700 pay agents. Stakeholder interviews at the Union level suggest amongst the three options, take-up of mobile money is low.

Box 2 WFP experience of e-payments in Myanmar

The United Nations World Food Programme (WFP) launched its first pilot programme using mobile cash transfers for humanitarian assistance in Myanmar in February 2017. Between 27 February and 1 March, 112 conflict-affected internally displaced families in three camps in Myitkyina Township of Kachin State received a monthly electronic credit allocation of MMK 9,000 (USD 7) per person for vulnerable households and MMK 13,000 (USD 10) per person for the most vulnerable households on their phone to be used at local shops. These recipients had previously received this amount through manual cash transfers. Once the pilot demonstrated that mobile money could be operationalised for this programme, e-payments were extended to a total of 284 households or 1,400 people in March 2017.

For the first phase, WFP partnered with Wave Money (a mobile money operator) to electronically credit the mobile money to the private account or e-wallet of each head of household. The recipients receive an SMS notification from WFP, and can then withdraw the cash at the nearest authorised 'Wave Shop' (pay agent). WFP provided feature mobile phones and SIM cards to recipients, as well as training on the use of mobile money. WFP has conducted post distribution monitoring (PDM) to assess the effectiveness of mobile money and the full analysis is forthcoming. It plans to extend mobile payments to 3,400 households in the next phase.

The implementation of mobile money at the early stage brought about a few challenges: this included beneficiaries forgetting PIN codes, losing mobile phone or SIM cards. However, initial research suggests that beneficiaries are adapting quickly to use mobile money and preferred using mobile money over the risk of carrying cash. There were rare problems with pay agent liquidity and these were resolved over multiple payment cycles. Wave Money and WFP did special sensitization training for all pay agents to ensure quality and respectful service. There was a significant investment at the initial stage, in terms of training and staffing for both WFP and Wave Money. More importantly, the use of e-money demanded an automated MIS to generate payrolls and conduct payment reconciliations.

Source: WFP website[66] and stakeholder interviews

3.2 Suggestions for adopting e-payments

The review of global evidence suggests that there are clear gains to be made from switching from manual payment mechanisms to e-payments. As suggested earlier however, the case for Myanmar must be assessed based on the country context, capacity of DSW to implement e-payments, market conditions and other factors. Below, we list some considerations if e-payments are used for government cash transfers in Myanmar. We focus specifically on the National Social Pension Programme implemented by DSW.

1. Transition to e-payments should be a medium to long term goal.

DSW recognises the efficiency gains from implementing e-payments and harmonisation. However, in the short term, it should prioritise capacity building, expansion of cash transfer programmes and strengthening internal systems. Transition to e-payments also requires more research at the village level and piloting of feasible options. Also, the e-payments market continues to evolve at a fast pace and user behaviour will likely change in the future.

- **Last mile delivery challenges remain in the short term:** In order for mobile money to be a feasible option for National Social Pension, PSPs need village level presence of pay agents across the country and this will take some time. Alternatively, the presence of officials at the village level is necessary to bridge the gap between township level payment points and village level recipients. Unless e-payments become the norm i.e. usage increases widely and behaviours change at the community level, it is very likely that intensive support will be needed to get the technology adopted by rural households and older recipients. This means continued involvement of village/ward officials; NGOs or DSW staff at the village level to monitor implementation including troubleshooting and training of

[66] WFP 2017.

recipients. In the short term, this implies continued reliance on GAD unless DSW expands its presence significantly. DSW is currently exploring plans[67] to increase the number of case managers at township level. Although this will reduce reliance on GAD for certain functions, we expect that the implementation of cash transfers will continue to require GAD's support at both the township and village/ward level in the short to medium term. The latter is especially important as GAD are the only link between social protection recipients and DSW at the village/ward level. Stakeholder interviews suggest that the current case load of National Social Pension recipients does not necessarily impose much additional burden on GAD officials. However, if the current case load increased by reducing the age limit of beneficiaries or expanding other social protection programmes such as the MCCT then the burden on GAD and village/ward officials will increase significantly.

- **Need accurate understanding of current context:** It is crucial to get an accurate understanding of some key social pension programme characteristics before changes are made to the payment system. For instance: what percentage of older people use proxies to collect payments; what percentage of payments are delivered at homes versus village/ward officials; what percentage of recipients are mobile; and what percentage of recipients own a mobile phone? This data is currently not available through DSW's information systems. More research is also needed to better understand the community level context in which e-payments for cash transfers will operate. There is insufficient research or data on the cost effectiveness of e-payments for social transfers in Myanmar. Results from post distribution monitoring of cash transfers using e-payments (WFP, MCCT) are forthcoming. This information will help assess the extent to which manual cash transfers face issues of leakage and inefficiency, as well as the potential gains from using mobile money. More research is also needed to better understand recipient preferences around payment modalities – especially for older recipients. There is insufficient information on the reliance of National Social Pension recipients on proxies; their mobility; digital literacy in their households; and their willingness to accept e-payments. The planned HelpAge Dry Zone pilot of e-payments for social pensions (targeted at 85-89 years) could provide more information in this regard.

- **Capitalise on long term market changes:** The e-payments market in Myanmar has evolved rapidly over the last two years and will continue to do so in the near future. Although mobile phone usage is high, consumer take up of e-payments is still relatively low but is likely to increase in the future. Efforts are also underway to increase financial inclusion across Myanmar. DSW can capitalise on these developments to ensure that take up of e-payments is high.

2. E-payments cannot work without strengthening other implementation processes and improving DSW capacity.

The use of electronic payments requires strengthening of related processes such as identity verification, management information systems, grievance redressal channels and effective monitoring and evaluation at the programme level. Moreover, these systems need to be *upgraded* with a view to use e-payments in the future. For example, an MIS system that easily integrates with core banking systems of PSPs such as banks and MMOs. A strong MIS, M&E and grievance redressal mechanism may in fact be catalysed by requiring the use of mobile money, although it theory it should also be a requirement of manual payments. It should be noted that e-payments cannot work without an automated information system or MIS, especially for a nationwide programme involving service delivery at the village/ward level.

[67] See forthcoming OPM (2017) *DSW institutional review* funded by HelpAge.

- **Strengthen associated implementation processes:** The overall implementation process of social protection programmes by DSW, especially the National Social Pension, relies largely on paper-based and manually driven records system and payment processes. M&E is reportedly done occasionally and grievance redressal is largely reliant on self-reporting of recipients. DSW is under capacitated, with no presence at the village or ward level. A switch from manual payments to e-payments would require a significant investment in DSW capacity to implement e-payments. A social protection programme with paper-based record system cannot move from manual to e-payments. Electronic recordkeeping (MIS) can reduce errors and is usually a prerequisite for outsourcing payments to a third-party payment service provider. An automated MIS is needed to update records, produce payment lists at assigned dates based on up-to-date information, issue payment instructions, and conduct payment reconciliations. An automated MIS ensures that checks are in place to avoid data errors and incorrect payments. As noted in Section 2.3.3, switching to e-payments per se will not eliminate all risks of fraud or error. Similarly, without village/ward level presence of DSW staff, many functions performed by GAD and village/ward officials cannot be automated or replaced. For instance, if mobile money pay agents are not available at the village level, this would impose greater travel costs on intended[68] recipients. Unless beneficiaries have access to a dedicated helpline or DSW staff who can answer queries and redress grievances, village/ward officials will continue to be an important source of information for recipients.

- **Automation does not eliminate fraud:** Global experiences suggest that the use of technology per se is not sufficient to completely prevent fraud and leakages – the use of mobile money in Myanmar has to accompany a strong institutional set up within DSW which allows it to monitor payments and receive beneficiary feedback (see Box 1 and Annex C). Furthermore, community level dynamics such as trust or social pressure will continue to affect how payments are transmitted to recipients and used thereafter.

- **Strengthen DSW capacity:** Strengthening existing systems and testing new ones requires increased capacity, especially to engage with third parties contracted to deliver payments. The use of e-payments to deliver National Social Pension payments will require contracting a third-party Payment Service Provider, including either a public-sector entity or private-sector entity or a combination of both. While a case can be made for capitalizing on private sector experience to expand e-payment systems, this engagement should ensure best outcomes for end-line recipients through reduced user fees, improved quality of service delivery and reduction in leakages and fraud[69]. This necessitates sufficient capacity within DSW to set out clear Terms of Reference/Request for Proposals, negotiate with PSPs and liaise with regulatory authorities and other concerned line departments. It also requires capacity to monitor the enforcement of contracts and continuously engage with PSP throughout the life of the programme.

3. It is likely that a 'mixed model' works best for the social protection programmes, with a mix of manual and e-payments, and potentially multiple service providers.

Given the diversity of programme recipients, geography and DSW capacity across Myanmar, it is unlikely that e-payment mechanisms such as mobile money will act as a universal solution. Other developing countries with established social protection systems typically retain manual payments in remote rural areas where e-payments are not feasible or impose high costs on recipients. In Myanmar, it is likely that e-payments will be feasible and easier to roll out in urban areas with manual payments for remote rural areas. In addition to various payment mechanisms, DSW may

[68] ISPA 2016.
[69] See guidelines for responsible digital payments: Better than Cash Alliance 2016.

require different PSPs if coverage of one PSP is not universal and/or regulatory authorities do not allow 'monopolisation' of the market, or to allow recipients to choose the best service for them.

This is likely to add complexity in the implementation of other processes, requiring greater capacity (as stated earlier) to manage different payment mechanisms and negotiate with different PSPs. The need to use multiple PSPs may diminish as interoperability improves, so for instance, PSP A can use the infrastructure of PSP B to deliver payments in areas where it has no coverage. The DSW could also contract to an aggregator such as a payroll service.

Our assessment has focussed on mobile money mechanisms as these are likely to be most cost effective with higher coverage compared to other payment mechanisms. Stakeholder interviews also suggested that the future of financial inclusion in Myanmar is likely to rely on increased usage of mobile money versus other payment modalities. However, the model of mobile money does not necessarily need to be a non-bank led model and unlike other countries, DSW may not have to choose between banks, MMOs and other service providers. There is increased convergence towards different types of PSPs in Myanmar offering mobile money products with varying degrees of functionality. The starting point for assessing the suitability of these options would be coverage and distribution of cash out points, followed by other considerations.

4. Maintain stakeholder commitment, across the board, throughout the transition to e-payments.

It is important to consider the priorities of the different stakeholders involved (ministry line departments, programme donors, PSPs and beneficiaries). There should also be a 'business case' for everyone involved along the entire value chain of stakeholders such as PSPs, pay agents, village officials etc. Failure to acknowledge different stakeholder positions/incentives early on and failure to maintain stakeholder commitment can result in ad hoc pressures (internal or external) undermining the plans, design and implementation of the programme by perhaps forcing it to scale up too quickly.

There is increasing competition between PSPs in Myanmar to provide mobile money products. However, currently there are no PSPs with the coverage and scale suitable to deliver nationwide payments, and in all likelihood national coverage will only come through interoperability or aggregators (see Section 2.3.1). DSW therefore needs to negotiate carefully with PSPs, as well as regulatory authorities to ensure that any public-private collaboration is attractive to all parties and results in a more cost-effective solution for the government.

Published regulation in Myanmar allows for G2P payments to be delivered through digital channels. However, DSW would need to involve the Central Bank and Ministry of Planning and Finance at an early stage to discuss the business case for switching to e-payments and use of one or more private sector PSPs.

5. Prioritise social protection objectives over financial inclusion objectives in the short term.

The choice of payment mechanisms should be driven by the primary objectives of social protection programmes: supporting consumption, improving nutrition and health status, and providing a safety net in response to income shocks. Formal financial inclusion[70] is not a primary objective of the cash transfer programmes in the Myanmar National Social Protection Strategic Plan, so e-payment mechanisms should be savings enabled, rather than savings encouraged. Risks of not prioritising reliable payments first include lack of trust and/or understanding of the new payment system by

[70] See Glossary for explanation of technical terms

beneficiaries which might discourage them to use the system for anything beyond collecting their social cash transfers and in turn, undermine financial inclusion goals. If the Government of Myanmar intends to use social protection programmes to encourage digital financial inclusion, then the programme objectives should be modified to note this goal.

A key takeaway from a comparison of experiences of four G2P payments in developing countries (Haiti, Kenya, Philippines and Uganda) is the importance of focusing on payments first before other financial inclusion objectives[71]. In these social protection programmes, e-payments were incorporated with a broader financial inclusion objective to cater for benefits beyond the programme itself. In Haiti and Uganda, more technical challenges arising during programme implementation meant that the programmes had to deprioritize financial inclusion as an objective and focus on ensuring reliable delivery of payments to beneficiaries to ensure trust in the system.

6. Adopt an approach which provides choice and drives competition in the long term.

Noting that e-payments is a long-term goal, it is also important to realise that improved financial inclusion itself can drive the adoption of e-payments in social protection programmes. In an ideal scenario, all recipients of social protection programmes should have access to an account – a bank account, e-wallet or other transaction account – that should be able to receive payments from the government. Adopting this approach means that social protection recipients are provided with the choice and flexibility of using the PSP and product of their choice. They can determine if a particular payment mechanism is suited to their needs. It is then up to the government to deliver e-payments to their accounts, negotiating with different PSPs on transaction charges and implementation modalities so that end-line recipients receive the full benefit amount. This approach can also use market competition in a way that allows PSPs to register customers, competitively, and encourage innovation amongst service providers so they can offer better coverage and functionality of their 'e-products'. It also means that a social protection programme is not 'tied' to one PSP or payments eco system. However, it is important to note that adopting this approach would still necessitate effective enforcement of regulation, strengthening of internal systems at DSW and continuous monitoring and evaluation to ensure the welfare of social protection recipients.

7. Determining cost efficiency of manual versus e-payments is challenging in the short-term.

Assessing the cost efficiency of various implementation modalities is important for DSW given resource constraints and the need to set policy and budget priorities in the long term. However, as noted above, given current capacity levels the transition to e-payments for DSW is a medium-long term goal. At the current stage, assessing the cost efficiency of manual versus e-payments is difficult for a number of reasons.

The costs of operationalising e-payments depend on the type of e-payment mechanism that is chosen and the division of roles across DSW, GAD and PSPs. The final 'service charges' such as transfer fees and withdrawal fees would need to be negotiated on an individual basis once the formal contracting process with PSPs begins. These are likely to be different from the P2P charges advertised by PSPs and experience from other countries suggests that DSW would need to involve a number of stakeholders to negotiate what the costs are, if they can get exemptions and how much of the service charge should be passed on to the recipients. It is likely that the e-payment 'market' will change by the time e-payments are operationalised. The user fees and implementation costs currently charged by private sector PSPs will therefore change in the future. Furthermore, these costs are negotiated at an individual basis and require ex-ante negotiation.

[71] See Annex 2 and Jamie Zimmerman, Kristy Bohling, and Sarah Rotman Parker 2014.

Understanding costs of manual payments is difficult as these are delivered through GAD and budgeting in DSW is not activity based[72].

In comparison to other payment mechanisms, a basic mobile money mechanism generally provides the option of relatively low set up costs – it relies largely on the presence of pay agents who are not exclusive to any PSP. We can expect most households to possess mobile phones although it is difficult to estimate if this holds true for social pension recipients (see Section 2.3.2). If DSW decides to use the option of e-wallets then there will be costs associated with helping recipients to register their SIM cards. However, if OTC payments are used then recipients do not need to be registered. Regardless of the type of mobile money product used, there are significant costs associated with training DSW and GAD staff, village/ward officials, and recipients. This also requires expertise within DSW to negotiate contracts with PSPs, enforce terms and conditions; and liaise with PSPs on various payment processes.

Global experience suggests that as with most implementation processes, when it comes to payment mechanisms, there is a trade-off between better accessibility for recipients and higher operational costs for programmes as this means setting up extra payment points, more training, communication and monitoring etc.

[72] A detailed costing exercise is necessary to ascertain the costs of service delivery of social pension programmes borne by GAD and DSW. This would include collecting detailed costs from both organisations and apportioning staff time to social protection related activities to estimate staff costs.

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Annex A Research questions

The table below presents key research questions and corresponding primary and secondary data sources. These research questions arise from the Terms of Reference[73] and have been modified and added to after initial stakeholder discussions, as well as documentation review.

Table 3 Detailed research questions

Assessment Criteria	Research Questions	Primary data sources	Secondary data sources
Integration	1. What are the **lessons from other countries** in moving from manual payment to electronic social cash transfers (especially by government), which Myanmar can learn from? What are the advantages and disadvantages of various types of products described in the study? 1.1 What has been the experience of interoperability in cash transfer programmes? (for example in Kenya and Tanzania) 1.2 Have aggregators been used by governments or NGOs successfully? (Beyonic and Segovia). 1.3 What are the trade-offs countries have faced when shifting to e-systems and how have they addressed these?	OPM colleagues in India, Pakistan and Tanzania.	International Literature (Reports, Journal articles, Working papers etc)

[73] Page 2, Section 3, Terms of Reference for Options assessment for electronic cash transfer delivery, Myanmar

Assessment Criteria	Research Questions	Primary data sources	Secondary data sources
Accessibility, Robustness & Integration	2. What is the **current state of play** with respect to Social Pension operations operated by DSW and HelpAge? 2.1 What is the current view and operational strategy on harmonisation of systems for various CTs that MSWRR is responsible for? 2.2 Is financial inclusion an objective for Social Pension? If so, how (savings enabled or savings encouraged)? What is the current rate of financial inclusion among typical SP recipients? 2.3 What is the process and which stakeholders are involved at the Union, State/Region, Township and Village Level for the following? o Targeting (incl MIS and Social Registry) o Registration (Identification, Verification of Eligibility and Enrolment of Beneficiaries) o Payment and Reconciliation incl rules on proxies o Exit (of beneficiaries) o Grievance Redressal/Complaints o Monitoring & Evaluation o Trainings for govt staff 2.4 Biggest challenges on the flow of funds (e.g. source of delays) and payment oversight 2.5 What are the challenges (if any) currently faced in delivering manual payments through MEB and GAD? (at Union, State/Region, Township and village levels)	MSWRR – DSW MEB Pensions Dept HelpAge GAD Township	Programme Operational Manuals

Assessment Criteria	Research Questions	Primary data sources	Secondary data sources
Accessibility, Robustness & Integration	3. What are the **lessons to date from Myanmar's early experiments** with electronic cash transfers, e.g. Wave Money via Save the Children and WFP, or other pilots? 3.1 Biggest challenges in onboarding – o Account set up o KYC / ID – What were the challenges / solutions for beneficiaries without NRC cards? o SIM registration o Training – beneficiary training 3.2 Biggest challenges on the flow of funds (e.g. source of delays in funding) and payment oversight 3.3 Biggest challenges in cash out / withdrawal o Payroll creation o Electronic authentication incl rules on proxies o Agent quality (do all agents know what they are supposed to do and have enough cash) o Are there special program requirements separate cash out, such as differential pricing for beneficiaries? o Control mechanisms (e.g. agents overcharging) o Payment reconciliation with programme MIS o What controls does the MMO have for limiting ▪ Forgetting PIN or stealing PIN ▪ Where is the potential for fraud? 3.4 Biggest challenges with regards to each specific payment service provider o Biggest challenges/risks of maintaining client privacy and confidentiality o Any limitations on visibility of beneficiary accounts – M&E within the MMO/Bank as well as govt/donor o What are their dispute resolution processes and where does accountability lie? o What on the ground control mechanisms could be removed during govt scale up to make it more efficient? o Is there a requirement for a "disbursement day and point"? o Who are the stakeholders involved in the manual transfers who might be cut out? o Is there any the pushback from intermediaries being cut out? 3.5 What is the mode of payments used for Govt Pensions via MEB and what are the lessons learnt from usage of smart cards in that process? 3.6 Does MEB and commercial banks (especially KBZ) have 'outreach programmes' to deliver payments below township level? 3.7 Are the products on offer 'e-wallets' where transfers can be accumulated? What happens to transfers that are not withdrawn?	DSW and UNICEF (for MCCT in Chin State) Save the Children Other INGOs WFP MEB Pensions Dept. Commercial Banks PSPs LIFT	Evaluation reports

Assessment Criteria	Research Questions	Primary data sources	Secondary data sources
Enabling environment	4. What types of electronic (non-manual) cash delivery options are legally allowed in Myanmar, or expected to be supported by **legal and regulatory frameworks** in the near term? *MMO led models, PSP led models and Bank led models (incl MFIs). Covered under MBL 2013 and MFS 2016* 4.1 Is there a change expected in legislation in the near future? 4.2 Are there attempts to lobby for changes in existing legislation? 4.3 Limitations of each type of account / regulation 4.4 Steps being taken towards bank and mobile money interoperability 4.5 Progress on One Household One Account initiative 4.6 What are the KYC requirements of each type of account / method? 4.7 What steps is the government taking in the near term to increase access to government issued ID cards? 4.8 Are mobile agents / cash delivery services allowed under current regulation?	Central Bank MEB UNCDF	Legislation documents
Enabling environment & Robustness	5. Are there any **restrictions in the types of providers** the government can work with or financial services government departments can access? 5.1 What due diligence is required for the government to work with providers? 5.2 What background information is required? (i.e. revenue or tax reports are a challenge for some) 5.3 Are there existing guidelines on procurement and contracting for payment service providers (esp in the private sector?)	MSWRR – DSW finance division MEB CB MoPF	

Assessment Criteria	Research Questions	Primary data sources	Secondary data sources
Enabling environment	6. What types of electronic cash delivery options are **feasible** in Myanmar given the country's context and financial infrastructure, including technological, banking/institutional, commercial and regulatory considerations (current and likely near-term future)? Consider capacity to deliver. *With a view to scale up nationally and focussing on Social Pension* 6.1 Look at growth of mobile money agents vs growth of ATMs 6.2 Look at interoperability (across and within Banks and MMOs) 6.3 Frequency and size of disbursements as a factor 6.4 At what stage of flow of funds would e-payments be feasible (Union, State/Region, District or Township level)? 6.5 Capacity of DSW to implement e-payments and associated processes (staffing, budget, training etc)	MMOs Banks DSW – finance division and SPU MEB	
	7. What are the **cost implications** of manual cash transfers vs various types of electronic transfers (that have been identified as feasible options for Myanmar's context)? Which form(s) of electronic transfer appears to be most cost-effective (taking into account payment mechanism set-ups, orientation for users, manpower, government staff training, costs to beneficiaries related transportation and time, etc.)? 7.1 Fee structures offered by various PSPs for the a) HelpAge Pilot in Jan b) Scaled up Social Pension nationwide	MMOs Banks Finance Division at DSW	

Assessment Criteria	Research Questions	Primary data sources	Secondary data sources
Accessibility	8. What are the advantages and disadvantages of various delivery options for Myanmar society, in relation to **readiness (e.g. digital literacy, language and numeracy) and acceptability** by the public and user-friendly features, particularly in rural areas? With a focus on the elderly. 8.1 Cost of access (direct, indirect and opportunity cost) o Acceptable distance to the paypoint o Reducing congestion (queues) at the paypoint o Ensuring no additional financial costs for beneficiaries 8.2 Appropriateness o Possibly ensuring some flexibility as to when and how transfers are collected and how much is collected o Sufficient training and communications on how to access payments o Accessible technology (including for illiterate, etc) o Sufficient staff support 8.3 Rights and dignity o Non-stigmatising o Non-excluding (e.g. illiteracy, disability, worn fingertips for biometrics, etc) o Suitable Complaint and Appeal Mechanism and M&E system	HelpAge NGOs Social Ventures Township GAD	MIS data collected by MSWRR for social pension or other programmes Finscope survey report[74] Research done by Proximity/Kokotech WFP evaluation of CT
Integration & Enabling environment	9. Are any **private sector companies or social enterprises** employing electronic money movements and how can this be applied for social cash transfers?	PSPs Proximity Koe koe tech Zigway	

[74] FinMark Trust 2013.

Assessment Criteria	Research Questions	Primary data sources	Secondary data sources
Integration, Robustness & Enabling Environment	10. What are the **recommended roles of various parties** in electronic delivery? What is the role of the private sector in expanding electronic transfers, and what are the advantages and disadvantages of various types of public-private-CSO relationship?	Steve Haley UNCDF	International Literature Review ISPA guidelines[75] Better than Cash Alliance guidelines[76] Mercy Corp Guidelines[77]
N/A	11. What are the **next steps** in moving towards the preferred option or a shortlist of feasible electronic transfers options identified in this study (maximum 2-3), led by government and supported by LIFT and its implementing partners?	Based on earlier analysis	
N/A	12. Which options should **HelpAge pilot in the Dry Zone**, and what are the next steps and specific activities required for such a pilot?	Based on earlier analysis	

[75] ISPA 2016.
[76] Better than Cash Alliance 2016.
[77] Mercy Corps 2014.

Annex B List of respondents

Stakeholders from the following organisations were interviewed between November and January 2017:

- AGD Bank
- BISP, Payments Division, (Pakistan)
- Central Bank of Myanmar
- Department of Social Welfare, Ministry of Social Welfare, Relief and Resettlement
- GAD, Mingalardon Township
- HelpAge International
- IFC
- IRC
- KBZ Bank
- Koe Koe Tech
- M-Pitesan (Ooredoo)
- MPT Mobile Money (MPT)
- Myanmar Economic Bank
- OK Dollar
- Oxford Policy Management
- Pension Department, MOPF
- Population Service International
- Proximity
- Red Dot
- Save the Children
- UNCDF
- UNICEF
- Visa
- Wave Money (Telenor)
- World Food Program

Annex C International literature review

This section presents selected examples of developing countries that have used e-payments for Government to Person (G2P) programmes, focussing on social protection programmes. These have been selected given regional proximity to Myanmar and similarities with country context in terms of limited infrastructure.

In Table 4 below, Column 1 lists the country, Column 2 lists programme details, Column 3 presents the payment modality (payment instrument, payment device and payment point), Column 3 presents challenges associated with the chosen payment modality and Column 4 presents the broad lessons learnt in transitioning from manual to e-payments using the payment modality in Column 3. At the end, we present consolidated lessons learnt from international experiences of using e-payments for Social Protection Programmes.

This is a rapid literature review based and is not designed to be comprehensive or systematic.

Table 4 E-Payments for G2P programmes in developing countries

Country	Programme details	Payment modality	Challenges	Lessons learnt
Indonesia[78]	Programme Keluarga Harapan (PKH) under the National Team of Poverty Reduction Acceleration (TNP2K) Vice President's Office is a conditional cash transfer rolled out in 2007 targeting 500 households in 7 provinces as part of the Government's National Poverty Reduction Strategy. The PKH objectives include improving socio-economic conditions of very poor households (improving health and education access) plus improving the health and nutritional status of pregnant women[79]. Pilots of electronic PKH payment covering 249,424 (BRI TabunganKu) and 100, 827 (Giro-Pos) recipients	**BRI TabunganKu**[80] (savings account based) **Giro-Pos** ('Account numbers' assigned to beneficiaries and cash 'withdrawn' at Post Offices) **POS-Wesel** (A manual system exists for cash collection only)	Transaction and administrative costs are high. Longer processing time (Giro-Pos) and significant start-up costs for account activation (BRI TabunganKu). Only the manual system (POS-Wesel) provides consistent community-based distribution services to remote areas with Giros-Pos being limited to branch based transactions and only some BRI branches providing this service with no clear guidance from head office Both e-payments rely on PKH facilitators to prefill withdrawal slips which is risky Poor motivation amongst BRI payment agents[81], questionable commitment to the programme	Overall there is a need for a robust and comprehensive PKH MIS to avoid delays in opening or account activation, authentication and verification prior to payment disbursement and a new strategy to provide financial education. A harmonized identification process between the payment agents (especially banks) and the programme is needed. BRI TabunganKu requires National IDs and only accepts a temporary PKH ID for 6 months, whereas Giro-Pos accepts both IDs. Discrepancies of information on National IDs (Kartu Tanda Penduduk) and PKH IDs result in delays in account activation.
Philippines	Pantawid Pamilyang Pilipino Program (4Ps). CCT program with focus on health and education conditions targeting poor households with a pregnant mother and/or children between 0 and 15 years. The 4Ps is implemented by Department of Social Welfare and Development (DSWD); and has 3,712,953 beneficiaries (as at August 2013). Pilot began in 2007 with 6000 recipients and a	Bank-linked POS solution (debit card and cash) Land Bank of the Philippines (LBP) is the primary PSP. They provide card that allows recipient to withdraw from LBP and partner ATMs, but offer no additional functionality	Coverage limited with areas where LBP banks have no branches Insufficient human resources, delays in recipients receiving cards	Initially LBP struggled maintaining timely and accurate payments. With time, LBP had to contract other conduits while maintaining the central responsibility of payment management. Also, beneficiaries especially those in remote areas complained about having to go to the nearest LBP ATM for cash but having an ATM cash card and/or experience transacting at a bank branch provided "a sense of ownership and status" to the beneficiaries because they own cards and/or have experienced being able to transact at a bank[83].

[78] Low levels of financial literacy in the country acts as a key barrier to financial access (OPM 2012).
[79] ILO (2007)
[80] BRI TabunganKu is a saving product (mainstream financial account) intended to cater to the needs of low income savers in line with the Governments goal to promote financial inclusion as articulated in the National Financial Inclusion Strategy. It was developed by Bank Indonesia and is offered by all commercial banks in the country.
[81] This can compromise the beneficiaries perception of the program and the quality of the service, as agent are literally the face of the service and if highly motivated can influence program success by bridging the gap between a high tech service and low-literacy clients.

Country	Programme details	Payment modality	Challenges	Lessons learnt
	potential to reach 20,000 within a 5-year pilot period. Grew to 300,000 recipients instead by end of 2008 due to political pressure[82].			
Haiti	Ti Manman Cheri (TMC), managed by Government of Haiti's Social and Economic Assistance Fund (FAES) is Haiti's first ever government-led cash transfer. Target recipients are mothers of school children, conditional upon children continued school enrolment. Started in 2012, 75,000 mothers reached after a year.	Mobile money through mobile network operators (Digicel's TchoTcho mobile product) and cash initially. Unplanned changes in the scope of the program required contracting of a second PSP (Unitransfer).Unitransfer recipients require a unique paper voucher for each payment issued by FAES staff on presenting their national ID. The voucher can be cashed at Unitransfer agents partnered to aid with payment disbursement.	Insufficient Digicel agents outside out capital city. Lack of central identification register Network outages as Digicel attempted to switch mobile platforms	Unreliable payments influenced customer and PSP experience and trust in the system, reducing chances of them using any financial inclusion features offered. Getting payments right is a necessary pre-condition to meet most other program objective and priorities. Government needs to stick to its priorities regarding programme scope and extensive planning and contingency plans are necessary.
Pakistan	Benazir Income Support Programme (BISP) is an unconditional cash transfer initiated in 2008 by the Government of Pakistan. BISP serves 5.29 million beneficiaries. Short term objectives were to cushion adverse impacts of food, fuel and financial crisis on the poor. The broader objective is to achieve redistributive goals of the country by uplifting the chronically poor and those likely to be negatively affected by future economic shocks with the provision of a minimum income support package[84]. Piloting of smart cards started in 2010[85] and by	BISP debit card (magstripe card) that allows beneficiaries to withdraw cash from any ATM in the country or at a POS maintained by banking agents. Payments are made to the female head of beneficiary household (the aim being to empower women), who has to present a Computerized National Identity Card (CNIC)	Some remote areas still lacking ATMs, even though on the aggregate level sufficient collection points exist Illiterate beneficiaries do not know how to use the card Middlemen involved in card usage pretending to help the beneficiaries while charging a commission for their 'help' Card loss/damage PIN code lost[86]	It might be necessary to consider staggering release of payments since long ATM queues and liquidity constraints have forced some recipients to make multiple trips to collect payments according to a 2016 evaluation of BISP. To attain the goal of empowering women, it is not enough to make the female household head the payment receiving beneficiary, if consensus on her retaining control of expenditure does not exist within the household. Depending on the payment device, loopholes may exist for someone other than the intended beneficiary within a household to be in charge of collecting the cash provided the beneficiary reveals the PIN if it is via ATM.[87]

[83] CGAP (2013a); OPM (2012)
[82] Alatas (2011)
[84] Cheema et al (2016)
[85] Smartcards introduced in 2010 allowed beneficiaries to withdraw cash from limited mandate or special-purpose accounts.
[86] According to the current statistics more than 80% complaints are related to card issuance, replacement and PIN code lost and as a result BISP management is looking at switching the withdraw method and introducing a biometric verification system (BVS) so as to better service the programme beneficiaries (BISP 2017).
[87] Qualitative research done to evaluate BISP found compelling evidence that cash collection is viewed as a shared responsibility within a household and women finding the fact that they preferred ATMs as a payment device because it convenient for them as anyone can collect the money at the ATM (OPM 2016).

Country	Programme details	Payment modality	Challenges	Lessons learnt
	2012 the Benazir debit card was introduced			
Pakistan	Citizens' Damage Compensation Program (CDCP) in response to the 2010 floods, Government implementing unconditional cash transfer ($225) to flood affected households with UBL Bank (as program partner) and Visa Pakistan as the other partner in the deployment of pre-paid debit cards.	Visa pre-paid debit cards ('Watan' Cards) distributed to beneficiaries. Approximately one million pre-paid debit cards in 70 days. Receipts withdraw from ATMs or agents set up to deal with post-flood situation or they could spend the money at stores	Heavy upfront investment needed (UBL Bank increased agents from 1800 to 4000 and established new international supply chain for the needed number of visa cards)	While risks exist with such a fast deployment of e-payments, the substantial investment and commitment from UBL Bank enabled relatively secure and efficient payment delivery considering the timeframe. This required UBL Bank to have a long-term view and see the value addition going forward. As it is, UBL Bank has built a good CSR reputation and is the implementing partner in the Governments largest cash transfer program (Benazir Income Support Program).
India	National Rural Employment Guarantee Scheme (NREGS) largest welfare program globally, targeting 800 million rural residents in India. Guarantees 100 days of paid employment annually. Social Security Pensions (SPP) provides income support to rural poor who are not able to work (disabled, widowed and elderly below the poverty line).	Smartcard based payment system launched in 2006 by the Government of Andhra Pradesh using a network of locally hired bank employed staff to biometrically authenticate beneficiaries and make cash transfers to villages[88].	Persistent ghost workers even after biometric payment system implementation. Incomplete coverage of smartcards created loopholes. The fact that unauthenticated payments were not banned (a political decision), the beneficiary lists were not cleared of ghost beneficiaries.	Investing in secure payment infrastructure can significantly enhance 'state capacity' to implement welfare/anti-poverty programs in developing countries, although programs should be cautious of potential risks related to withdrawal of political support. The political economy influence, almost resulted in the scrapping of the smartcard project in 2013[89]. Biometric authentication has the potential to reduce leakages[90] and fund diversion from G2P.
Malawi[91]	Social Cash Transfer Programme (SCTP) makes payment to labour constrained and ultra-poor households in 18 districts. Administered and implemented by the Ministry of Gender, Children, Disability and	3 providers (Opportunity Bank International Malawi-OBIM[93], Airtel[94] and First Merchant Bank-FMB[95]) make e-payments through two approaches; a) Money is	Potential fraud from offline transactions Customers not knowing their names Village chiefs charging customers to issue identity letters	Overall connectivity and liquidity remain the biggest challenges for scaling up of e payment, but the new national interoperable payment mechanism (NatSwitch) will allow the MoGCDSW to reduce administrative costs of scaling up e-payments if successful.

[88] Muralidharan et al (2016)

[89] Results of an experiment to randomize the rollout of smartcards across 157 sub-district in the Government of the Indian State of Andhra Pradesh (GoAP) enabled programme sustainability in 2013 when the program was nearly scrapped due to lack of support particularly form local officials whose rent would be reduced when switching from manual system to the new smartcard system. The results of the large-scale impact evaluation with large near-representative samples and the great preference for the new payment system by the beneficiaries paid a big role in ensuring continuity of this project by the GoAP (Muralidharan et al 2016).

[90] Leakages and diversion of funds from previous programs have been estimated to be as high as 51 percent Government of India allocated US$ 70 billion to social assistance programs in 2016, but these funds do not always reach the intended recipients (Government of India, 2017).

[91] Malawi's context may share some similarities with Myanmar's context in that it has is that low financial literacy. Even with nearly half of the population in Myanmar owning a mobile phone, digital literacy skills remain low. However, Malawi also have low literacy rates generally, very low electricity access (9.8 percent) and low mobile network penetration (OPM 2016).

Country	Programme details	Payment modality	Challenges	Lessons learnt
	Social Welfare (MoGCDSW). Switch to e-payment to cut down transaction costs, improve transparency and improve financial inclusion. 2013 e-payment pilot in Mchinji, Machinga and Balaka Districts only. Approx. 17,350 recipients (4,382 with OIBM; 4,510 with Airtel and 8,458 with FMB)[92]	transferred into an account controlled by recipient, and they collect funds at any time from any one of a network of agents or banks **('fully fledged' e-payment system).** b) Government outsources delivery of cash to a PSP to transport cash to recipients locations on an appointed day and time, and recipients use phone or card to access cash **('managed' e-payment system)**	Customers needing to reset PINs Lost cards Instances of ghost accounts Agents committing fraud against the recipients by over-charging them for cash out fees Limited Reporting functionality during emergency cash transfer, limiting monitoring of withdrawal and savings by programme administrators	At the moment, no single PSP can reach all 150,000 recipients and therefore room exists for exploring different models for payments (one provider, many providers, one to many providers).
Uganda	Social Assistance Grants for Empowerment (SAGE) managed by the Ministry of Gender, Labour and Social Development is an unconditional transfer primarily targeting senior citizens and vulnerable families. 95,000 households (600,000 people) in 14 pilot districts in four years (April 2011-February 2015)[96]	SAGE programme smart card with a SIM produced by MTN and branded MTN card are provided to beneficiaries. MTN pay agents used for cash out.	Lack of electricity or mobile network coverage at the payment, hampering reliable recipient payment. Faulty cards due to lack of an initial verification process and replacement cards took a while to process Liquidity constraints at pay points Time travel to payment and time taken to process pay is too long	This is good case study of a programme that prioritized timely payment delivery over broader financial inclusion goal by choosing to sequence priorities allow efficient administration of e-payments.

[93] OIBM have mobile vans with POS and agents with POS (customers use cards).
[94] Airtel has agents and super agents with mobile phones (recipients use mobile phones).
[95] FMB has mobile vans with POS (recipients use cards).

[92] OPM (2016)
[96] Merttens et al (2016)

Country	Programme details	Payment modality	Challenges	Lessons learnt
Kenya	Kenya Hunger Safety Net Program (HSNP) Pilot/Phase 1 (2008-2012) under Ministry of Devolution and Planning is an unconditional cash transfer program which is primarily aimed at the chronically poor. Payment delivery component managed by HPSN Component of Equity Bank in coordination with Financial Sector Deepening Trust Kenya and HelpAge International manages the programme rights component. In four counties in Northern Kenya: Marsabit, Mandera, Turkana and Wajir HSNP Phase 1 targeted 69000 households (2008-2012)[97] HSNP Phase 2 (2013-2017) -100,000 households approximately 720,000 people	Biometric smart cards[98] used to collect cash at any time from a range of pay points (mainly small shops) Bank Accounts opened and ATM MasterCards issued by Equity bank staff to beneficiaries	Large agent network demand Network coverage constraints as agents at offline pay points still need to have network to reconcile Liquidity constraints	Phase 1 generally performed well with all beneficiaries receiving smart cards and very few unreceived payments reported. Some households reported not being able to withdraw amount they desired during the last payment or being charged a fee by the payment agent.
Niger [99]	Concern International (an international non-governmental organization) designed a short-term social protection program, providing unconditional cash transfer to approximately 10000 drought affected households to prevent high levels of malnutrition and asset depletion during the 'hungry season' (i.e. the five months before harvest season). The NGO introduced a mobile phone based money transfer system (m-transfer or mobile	An experimental treatment (Zap) where recipients received cash transfer via mobile phone. Recipients receive a text with a special ring and have to go to a nearby m-transfer agent to "cash out". Low mobile penetration[100], required provision of phones with an m-money account and training. Only female program recipients could cash out. Fewer Zap agents,	Relatively high initial cost of m-transfer due to need to provide mobile phones Limited mobile money agent network in the country, recipients did not use the payment instrument for savings or remittances	Without sufficient mobile money network and mobile phone penetration, m-money will have relatively higher costs for initial payments and it would be difficult to implement broader financial inclusion goals without the needed agent infrastructure investment.

[97] Merttens (2013)
[98] They have greater functionality than magstripe cards but are more expensive (ISPA 2015).
[99] Niger being one of the poorest countries in the world has low literacy rates, financial inclusion and mobile money adaptation (Aker et al 2013).
[100] Less than 30 percent of people in the region owned mobile phones prior to the program and m-transfer technology was very new to the region.

Country	Programme details	Payment modality	Challenges	Lessons learnt
	money) known as “Zap”.	required engagement of mobile phone operators in registering m-money agents to access remote areas		

The summary of international experiences in transitioning from manual to e-payments presents some key learning points for social protection programmes implemented by government:

1. **Social protection programmes should focus first on primary objectives (safety net provision and basic needs support) before financial inclusion objectives.**

Some programmes in certain countries have gone beyond the basic objectives of reducing costs, increasing transparency and reducing leakages to accommodate broader objectives linked to national level objectives that target increasing the level of financial inclusion. A financially inclusive payment delivery mechanism is one that provides recipients with a transaction account. This links them other financial services such as insurance, credit, savings, and remittances. Haiti (Ti Manman Cheri), Kenya (Cash for Assets) and Uganda (Social Assistance Grants Empowerment) are examples of low income countries that have transitioned to e-payments for cash transfer programs and incorporated a broader financial inclusion objective to cater for benefits beyond the programme itself. In Haiti and Uganda, more technical challenges arising during programme implementation meant that the programmes had to deprioritize financial inclusion as an objective and focus on ensuring reliable delivery of payments to beneficiaries to ensure trust in the system. A key takeaway from a comparison of experiences of four Government to people (G2P) payments in less developed countries (Haiti, Kenya, Philippines and Uganda) is the importance of focusing on payments first before other financial inclusion objectives[101]. This is particularly key to consider at the early exploration and design stage of programmes for low income recipients in low infrastructure contexts. Risks of not prioritising reliable payments first include lack of trust and/or understanding of the new payment system by beneficiaries which might discourage them to use the system for anything beyond collecting their social cash transfers and in turn, undermine financial inclusion goals.

2. **It is important to consider the priorities of the different stakeholders involved (ministry line departments, programme donors, PSPs and beneficiaries). In addition, ensuring there is a business case[102] for everyone involved, not only amongst programme supporters but also along the entire value chain of stakeholders of the G2P programme is crucial (i.e. PSP and agents).**

Failure to acknowledge different stakeholder positions/incentives early on and failure to maintain stakeholder commitment can result in ad hoc pressures (internal or external) undermining the plans, design and implementation of the programme by perhaps forcing it to scale up too quickly.

The Philippines 4Ps conditional cash transfer (CCT) that piloted with 6000 households in 2007 faced political pressure from President Gloria Arroyo in 2008 to immediately scale up to cover 300,000 households. Within five years the 4Ps was covering 4 million recipients and as a result the programme and its PSP did not manage to adhere to the initial plan as advised by core funder in

[101] Zimmerman et al. (2014)

terms of having rigorous targeting, monitoring, impact evaluation and roll out. Challenges as a result of the Presidential mandate included cash cards that did not work for all recipients everywhere, payment processing delays and some recipients having little to no access to Land Bank of the Philippines (LBP) ATMs. Even with all these initial challenges the 4PS is a flagship programme and the fourth largest CCT globally by population coverage (20 million people in 4.4 million households as of December 2016). The programme provides a good example of resilience to political pressure and a focus on basic improvement of payment before incorporating broader financial inclusion goals, despite external pressure felt by the Department of Social Welfare and Development (DSWD) to provide financial services such as savings, remittances and loans[103].

In Indonesia, the PKH pilot e-payment schemes struggled with one of its payment providers (Bank Rakyat Indonesia – BRI) which influenced performance during payments. Discussions with BRI and the programme implementing agency brought to light some reluctance on the part of BRI in getting involved in the programme from the start, and in this in turn translated to the problems experienced later during the payment process, perhaps as an indicator of a stakeholder that is not motivated.[104] While specific reasons were not revealed, the lengthy negotiation time may indicate failure of BRI to see the value in taking part in the programme.[105]

Haiti's Ti Manman Cheri (TMC) programme, also suffered the consequence of a 'political override' resulting in rapid geographical scaling up of programme, with the mobile network operator (Digicel) having to cater for the additional demand. Digicel hardly had sufficient agent network and the country had no prior experience with mobile-based cash transfers, let alone a nationwide mobile cash transfer. TMC rolled out at national level before the programme administrator and Digicel could ensure systems and process envisioned were working effectively. In addition the programme had not provided a good business case for Digicel but catered well to the needed financial incentives for the second service provider Unitransfer to participate in the programme. Fees owed by Unitransfer per payment were 3.5 times higher than those charged by Digicel. Adjustments in the geographical scope of the programme resulted in the need for having Unitransfer. This is because Digicel did its initial cost estimates based on the initial programme roll out plans to only Port au Prince, where it has a strong network of agents. Unitransfer's relatively high fees in turn resulted in the need to change the original programme design. Unitransfer recipients were then paid every other month instead of monthly to reduce overall programme costs. Neither company articulated a business case for partnering with TMC but over time the preference for Unitransfer over Digicel and the uncertain future and diminishing role of Digicel, reduces the financial incentive for Digicel to invest in the program[106].

3. Use of electronic payments requires development of related processes such as identity verification, management information systems, grievance redressal channels and effective monitoring and evaluation at the programme level.

The e-payment cases provided in Table 2 make a case for e-payments addressing some inefficiencies with manual payments. However, loopholes still exist especially in developing countries with high illiteracy rates. Biometric technology is a promising way in addressing authentication related inefficiencies in social welfare programs. For instance, the Aadhaar initiative in India, provides biometric-linked unique IDs (UIDs) to residents, with the long-term view of

[103] CGAP (2013a)
[104] OPM (2012)
[105] The tendency for other stakeholders of PKH to see BRI as a government owned institution meant that the assumption was that BRI should the able to participate in PKH as it was perceived as a public service government vehicle rather than a financial institution with commercial objectives (OPM 2012).
[106] According to CGAP (2013b) Digicel serves 23000 recipients and Unitransfer caters to 52000 recipients. Unitransfer voucher was preferred by FAES staff because it was perceived as more effective and covers remote areas where Digicel agents do not reach with armoured vehicles.

switching to direct benefits transfers via UID linked bank accounts for social programme payments such as the NREGS and SPP programs on Table 2. As of June 2015, 850 UIDs have been issued but the ambitious goal is to reach one billion residents[107].

4. **Cost effectiveness for all those invested in the programme is important to consider especially in the long run and taking into account resource limitations in developing country contexts**.

Set up costs can be high especially in remote rural areas in countries with less developed infrastructure. Upfront investment costs required to operationalize bank branches and ATMs in remote areas if they do not already exist is very high. At the same time the type of payment instrument chosen might mean a trade-off between functionality options and hence the quality of service it can offer and set up costs. For instance, a smart card provides for more functionality over a magstripe card, but is a lot more expensive and so are the chip reading POS terminals required. For funders the focus is normally on reducing leakages and ensuring it reaches the beneficiaries. Costs for beneficiaries relate to ease of access to payment avoiding congestion, long distance travel and additional financial costs. A trade-off exists as better accessibility for beneficiaries is mostly associated with higher payment costs for programs as means the PSP has to set up extra payment points. At the same time programme managers want to ensure programme costs are not too high especially if the programme runs for a long time.

5. **While a case can be made for capitalizing on private sector experience[108] to expand e-payment systems, one should cautiously engage the private sector.**

Arguments that make the case for private sector engagement also need to ensure that the government is in a position to ensure that the arrangements made serve the public. An example from a middle income country (South Africa) highlights the need to stop thinking of private providers as automatic fix to government shortfalls. Court proceedings in South Africa in relation to the public-private partnership (PPP) between the South African Social Security Agency (SASSA) and Cash Paymaster Services (a private PSP) had revealed irregularities that negatively affected the beneficiaries of social grants. In 2014 the court declared the CPS contract invalid and SASSA said that it would take over the process internally. CPS (a subsidiary of US fintech firm Net 1) was also accused of exploiting grand beneficiary's data and cashing in at the expense of South Africa's most vulnerable citizens. However, over time it then became clear that SASSA had no in-house capacity for this. The court had to let the contract run its course (ending March 2017) to maintain consistency in payments to vulnerable beneficiaries conditionally upon CPS not making any profits during this period. The March 2017 deadline reached but SASSA still had not found an alternative PSP. CPS is constitutionally required to continue making payments to the 17 million South Africans enrolled in their CPS smart card[109] payment system. While a case can be made for private sector engagement where capacity shortfalls exist in government, PPPs are not a guaranteed cure for government incapacity and government should at the very least have some capacity to ensure that agreements serve the public. While addressing fraud was the argument made for biometrically linked smart cards and engaging CPS as opposed to the other rival bidders, in the end fraudulent activities took place regardless due to lack of proper oversight by the coordinating body (SASSA) and the Department of Social Development.

[107] Harris (2003); Muralidharan et al (2016)
[108] IRC (2016); International Bank of Reconstruction and Development (2014); Smith et al (2011)
[109] The smart card is issued to the beneficiary on site and utilizes optical fingerprint sensor technology to identify and verify a beneficiary. Additionally, during enrolment CPS capture the beneficiary's voice print to perform biometric verification when using channels such as ATMs and traditional POS terminals that normally do not have fingerprint readers (Net1 UEPS Technologies, Inc 2012).

6. It is crucial to realize that it is not a one size fits all situation and no solutions will cater to the needs to every stakeholder involved.

Almost all programmes using e-payment systems have been based on partnerships with private sector service providers[110] and this is also the case with the programs summarized on Table 2 above. It would therefore not be accurate to generalize to all contexts that PPPs do not work simply based on the South African case. As a result many countries are moving towards having multiple solutions to cater to demand side constraints. Haiti's TMC programme is a good example of design oversights that resulted in the Government not considering other no- mobile payment service mechanisms such as cards. This one track approach was partly because unlike many G2P designs, the design of the payment mechanism for TMC was mostly driven by the PSP instead of the programme. The Government did not consider other options and simply embraced the Digicel's mobile money proposal through a sole source contract.

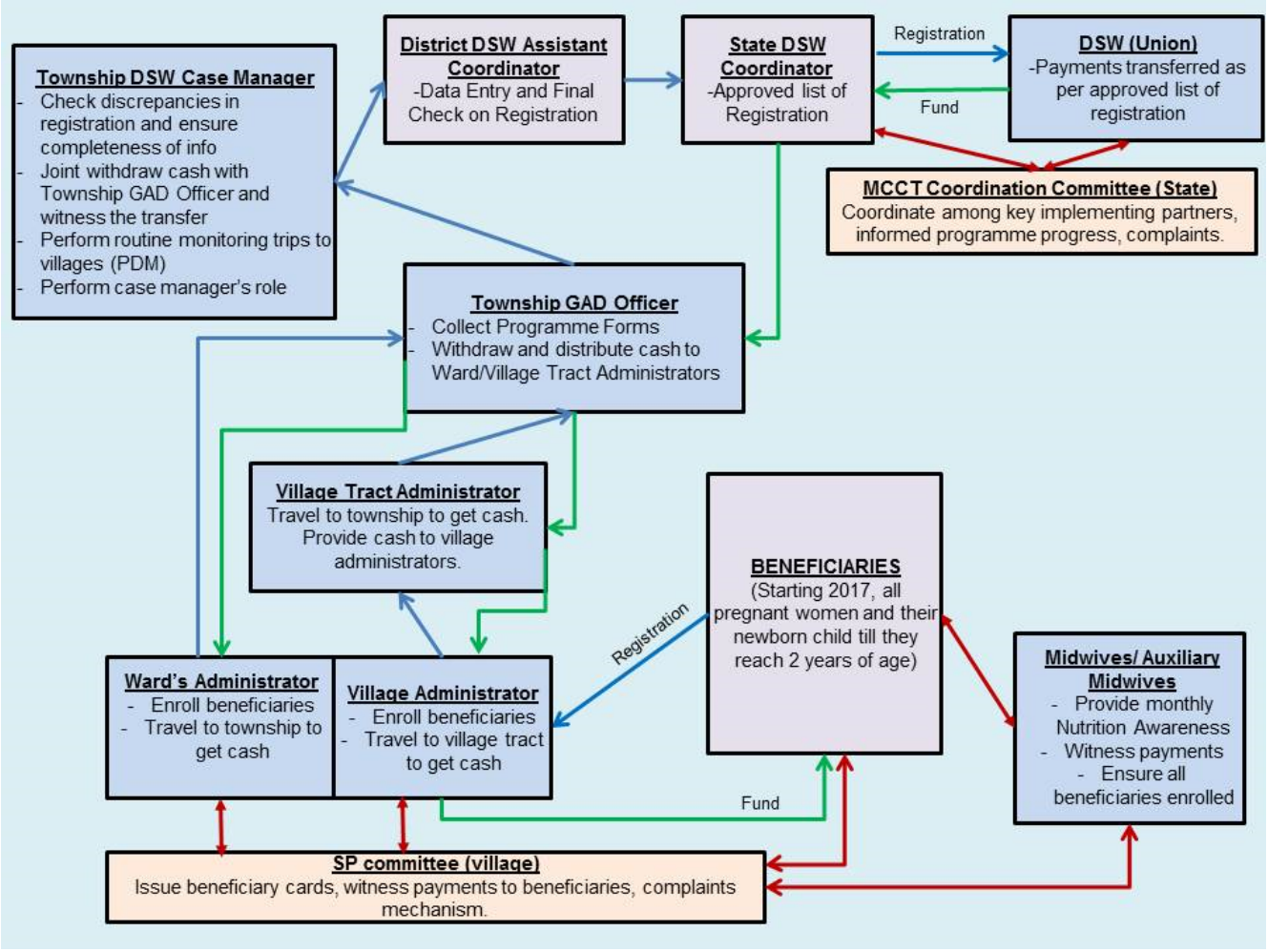
[110] Smith et al. (2011)

Annex D MCCT implementation processes

The figure below summarises the implementation processes of the MCCT implemented by DSW with support from UNICEF in Chin State in Myanmar.

Unlike the National Social Pension, in MCCT, a joint account is held by Township GAD and DSW case manager for the respective township. Case managers have been recruited in the townships within MCCT targeted area. There are also social protection committees both at township and village levels. These committees monitor/oversee the payment process.

Figure 7 MCCT Beneficiary Registration and Payments



Source: pg. 23, MSWRR & UNICEF, 2017. MCCT Operational Manual Draft. Feb 2017

Annex E Glossary for e-payments

There are a number of industry-specific terms used to describe various concepts and actors in the e-payments sector, social protection sector, as well as the financial inclusion sector. We have selected a few key terms below, largely adapted from the Glossary provided in the ISPA guidance note[111]. A comprehensive list is also provided in AFI Guidance Note[112] and Better than Cash Alliance Government Toolkit[113].

Account Refers to an account held at a payment service provider (either bank or nonbank) that holds funds and allows transfers to be made to and from it. Also referred to as a transaction account, and includes traditional bank accounts and non-traditional accounts including the provision of e-money wallets by banks and nonbanks including mobile network operators offering mobile money.

Agent A representative of a payment service provider such as a bank or mobile money operator that facilitates payment transactions in the field. Agents are typically shopkeepers or airtime dealers, but could be individuals as well, who provide cash-in and cash-out services for a fee on behalf of the bank or mobile money operator and its clients. In this report we use agent or pay agent interchangeably.

Aggregator Enable the collection, disbursement, and circulation of electronic payments across multiple payment providers irrespective of which payment instrument service is used to conduct a transaction. Aggregators allow payment instrument providers—such as mobile network operators offering mobile money services or banks offering mobile banking—to easily integrate with entities that want to send money to or receive money from end customers. These entities can be, e.g., utility companies that want to receive payments, businesses that want to pay salaries, or donors that want to pay recipients.

Authentication Refers to the verification of the identity of a person claiming to be the rightful recipient of a payment. There are a number of different approaches to authentication, which may be carried out manually, e.g., by physically verifying a national identification card and visually comparing a photo, or electronically. There are three factors of authentication, in order of increasing reliability: (1) something you know (personal identification number, password), (2) something you have (payment card, national identification), and (3) something you are (biometric fingerprint, voice). Strong systems use two factors of authentication to verify a person's identity, e.g., a card and a personal identification number.

Biometric Using biometrics for identification means assessing an individual's identity based on a unique physical or behavioural trait, such as fingerprints, iris, or voice—i.e., something they are. See authentication.

[111] Page 94, ISPA 2016.
[112] AFI 2013.
[113] Better than Cash Alliance n.d.

Closed-loop payment instrument	A payment instrument that only operates on a stand-alone system. For example, ATM cards issued by a particular bank may only be used to access funds through that bank's network of ATMs.
Digital financial services (DFS)	Financial services delivered via digital infrastructure (mobile or Internet) with low use of traditional brick-and-mortar branch infrastructure. DFS include the full range of products (digital transfers, payments, stored value, savings, insurance, credit, etc.), channels (such as mobile phones, Internet, or automated teller machines), and providers including mobile network operators, banks, nonbank financial institutions, and electronic money issuers, retailers, post offices, and others.
Electronic payment (e-payment)	In the context of social protection payments, refers to those occasions where e-payment instruments are used to make the social protection payment, often accompanied by automation of various elements of the overall social protection payment process. This may include the use of payment cards and point of service devices.
Electronic wallet (e-wallet)	An electronic money product where the value of funds is stored; e.g., smart card or mobile phone. Also referred to as mobile wallets or digital wallets, these are money accounts that allow stored value and are accessed through a mobile phone.
Financial inclusion	According to the Centre for Financial Inclusion, a state in which all people who can use them have access to a full suite of quality financial services, provided at affordable prices, in a convenient manner, with respect and dignity. Financial services are delivered by a range of providers in a stable, competitive market to financially capable clients.
Government-to-person (G2P) payment	Includes the payment of government salaries, pensions, and social transfers.
Interoperability	Creates a situation where a user of one bank or financial service provider can exchange a transaction with a user of a different bank or financial service provider. Interoperability may be achieved by participants all using the same system or through agreements between systems. This also means a situation in which payment instruments belonging to a given scheme may be used in platforms developed by other schemes, including in different countries. Interoperability requires technical compatibility between systems, but can only take effect where commercial and operational agreements have been concluded between the schemes concerned.
Manual payment	Where individuals (programme staff or third parties) are required to move physical cash and all transaction records are made in paper hard copies.
Management Information Systems (MIS)	Systems which store information about beneficiaries and their entitlements. MIS is used to perform functions such as identification of beneficiaries, compliance with conditions, grievance redress, and generating payment lists.

Mobile banking	Use of a mobile phone by bank customers to interact with their bank accounts. Typically, mobile banking is provided through a smart phone application, but Unstructured Supplementary Service Data (USSD) and Java applications also exist.
Mobile financial services (MFS)	Financial services delivered digitally over a mobile phone, including payment services and more complex products and services such as savings, credit, and insurance; a subset of digital finance. In general, mobile financial services includes using specific capabilities of mobile phones such as Unstructured Supplementary Service Data (USSD), location detection, etc.; and not Internet access from mobile phones.
Mobile Money Operator (MMO)	A licensed mobile money service provider that develops and deploys financial services through mobile phones and mobile telephone networks. In this report we use MMO for telcos/telecom operators providing mobile money services.
Mobile network operator (MNO).	A company that has a government-issued license to provide telecommunications services through mobile devices. Also called a telco.
Open-loop payment instrument	A payment instrument that can be used at acceptance infrastructure beyond those of the issuer. For example, if Bank A issues an automated teller machine (ATM) card, that card can be use in Bank A's ATMs and other ATMs either provided by third parties or other banks.
Over the Counter transactions (OTC)	An OTC transaction occurs when clients do not use their own e-wallets or bank accounts but instead hand cash to agents who execute transfers on behalf of senders and receivers.
Payment instrument	Any instrument enabling the holder/user to transfer funds. In the context of social protection payments, the token used by a recipient in a payment device to initiate an electronic payment transaction such as a payment card or SIM card.
Payment delivery mechanism	Mechanism used to deliver cash or near-cash transfers to social protection programme recipients.
Payment service provider (PSP)	The public or private sector organization tasked with delivering the social protection programme's payments, such as a bank, post office, or mobile network operator. In this report we use the term PSP to refer to any financial service provider.
Personal identification number (PIN)	A numeric code the cardholder may need to quote for verification of identity. In electronic transactions, a PIN is seen as the equivalent of a signature.
Point of sale (POS) device	Payment device used in a payment transaction. It is typically held by a merchant or agent and requires a card and personal identification number or card and biometric to carry out a payment transaction.
Prepaid card	Payment card used to access prior deposit of funds. This is a type of e-money product.

Proxy	Individual nominated by social transfer recipient to receive/collect payment on his/her behalf. Proxies are typically registered officially within the system.
Recipient	The individual authorised to receive a payment. In certain cases, the recipient and the beneficiary are different people. For example, in the case of an orphans and vulnerable children's programme, the child is the beneficiary while the primary caregiver is usually the recipient. The payment service provider is responsible for delivering payments to recipients; the programme must mediate to ensure that funds reach the beneficiary. In this report we have used the term recipient or beneficiary interchangeably. We have instead used 'proxies' to refer to people eligible to collect payments on beneficiary/recipient's behalf.
SIM (subscriber identity module) card	The microchip used in a mobile device (e.g., mobile phone) to uniquely identify the subscriber's account. It may be moved from device to device.
Smart card	An integrated circuit card with a microprocessor, capable of performing calculations.
Social protection (SP)	In the Inter Agency Social Protection Assessments (ISPA) context, refers to the set of policies and programs aimed at preventing or protecting all people against poverty, vulnerability, and social exclusion throughout their life, with a particular emphasis on vulnerable groups.