5. LESSONS LEARNED AND CONCLUSIONS

5.1 Advantages of integration and related challenges

Section 1.1 discussed the main advantages of integrating data and information management for social protection and beyond, while the challenges and trade-offs involved in setting up such a system were discussed in depth in Section 4. Table 10 links this information, while figures 9 and 10 below discuss the conditions that need to be in place to fully reap these potential benefits.

Table 10 Potential advantages and related challenges of integrating information management

Potential advantages to integration	Extent achieved to date	Related challenges and risks	Also see section
Policy			
More equitable approach to the distribution of resources based on objective and comparable information, addressing the uneven and unequal provision of social protection across social groups and administrative jurisdictions	✓✓✓	Integrated systems for information management that consolidate the determination of eligibility across programs can offer advantages, but there are several risks that should be carefully considered. These include: » Systematic exclusion of certain types of households due to problems in data collection processes (e.g. remote households), in administrative requirements (e.g. lack of an ID card) or in determination of eligibility (e.g. formula not capturing all of those in need) » Multiple exclusion from all social sector schemes (in a non-integrated system, those not eligible for one scheme may be eligible for another) » Potential stigmatisation of households classified as 'poor' in the national data (belonging to smaller un-integrated schemes can be perceived as less stigmatising).	4.2.6
Increased responsiveness and inclusiveness of interventions, able to serve the chronic poor and those structurally vulnerable to poverty, as well as respond to individual shocks or large crises	✓✓	This holds true when data is updated regularly and is capable of capturing dynamics around the poverty line (and transient poverty). » Countries with the capacity to integrate data with other sectoral databases (virtual registries) are best placed for this, but do not necessarily have a policy focus on increasing responsiveness and inclusiveness of interventions (i.e. this is a policy issue). » Many countries operating census surveys as an approach to data collection struggle to update their registries more than every two or three years (or more), and may therefore not be channelling social assistance to those in need. » Countries operating on-demand data collection systems will be better placed to capture negative but not positive changes to household conditions. » Countries with low levels of population coverage within their registry (e.g. low take-up) or with information only on current beneficiaries (e.g. integrated beneficiary registries) will not be able to adequately reach this objective.	4.2.1 4.2.2 4.2.7

Potential advantages to integration	Extent achieved to date	Related challenges and risks	Also see section
Ensure universal coverage and support implementation of the social protection floor, potentially coordinating social assistance and social insurance	✓	Universal coverage and linkage between social assistance and social insurance is rarely on the policy agenda. Also, there is insufficient focus on smooth transition between schemes (graduating 'out' of social assistance 'into' other types of programs).	
Increased linkage to the complementary institutional framework and wider social and economic policies in place[66]	✓	Not the case when the focus of integration is narrowly defined to include a handful of social assistance schemes and not the wider spectrum of social protection policy (including social insurance and labour market interventions). Similarly, integration with wider government policies can be hampered by weak institutional agreements between responsible bodies (this is a policy issue).	3.3 4.1.1
Increased transparency and accountability as program information can be more easily shared and compared	✓✓✓	The extent to which this is achieved strongly depends on the institutional commitment of individual stakeholders and on the overall policy context, not on the technological set-up of the system.	4.2.3
Improved 'image' of the social protection system as citizens better understand their entitlements	✓✓	This holds true where citizen focus is at the heart of the integration agenda and in contexts with national on-demand application systems and integrated communication strategies.	
Increased knowledge on issues around poverty and vulnerability	✓	Can be hampered by lack of analytical capacity, internal incentives to focus on immediate implementation aspects rather than long-term policy aspects, and lack of coordination with institutions such as universities and research centres. Best practice has been to develop user-focused reporting systems that can be easily accessed by different audiences. There are also large privacy and security risks to holding vast amounts of information on countries' citizens, with the potential of that information being used to increase citizens' vulnerability.	4.2.3 4.3.1

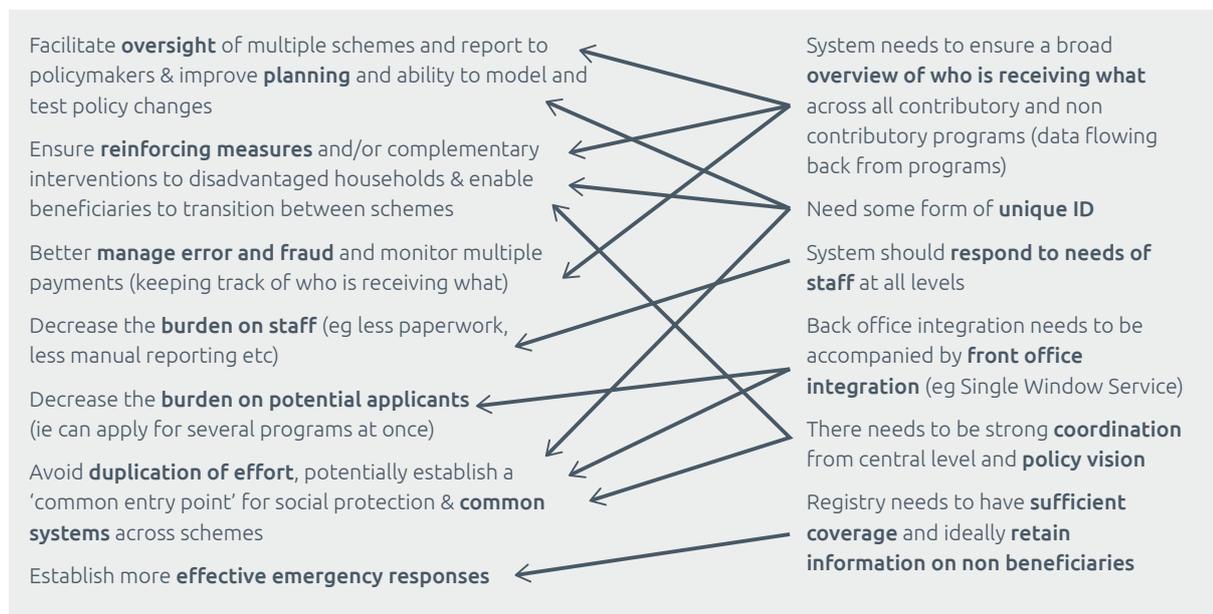66 'SP systems have the potential for maximizing outcomes and impacts if they are conceived as integral components of national development and poverty reduction strategies, linked with complementary programs (e.g.: livelihood promotion, labour market and intermediation programs, food security programs, etc.) and macro policy determinants (macroeconomic stability, economic growth, etc.).' (OECD 2009).

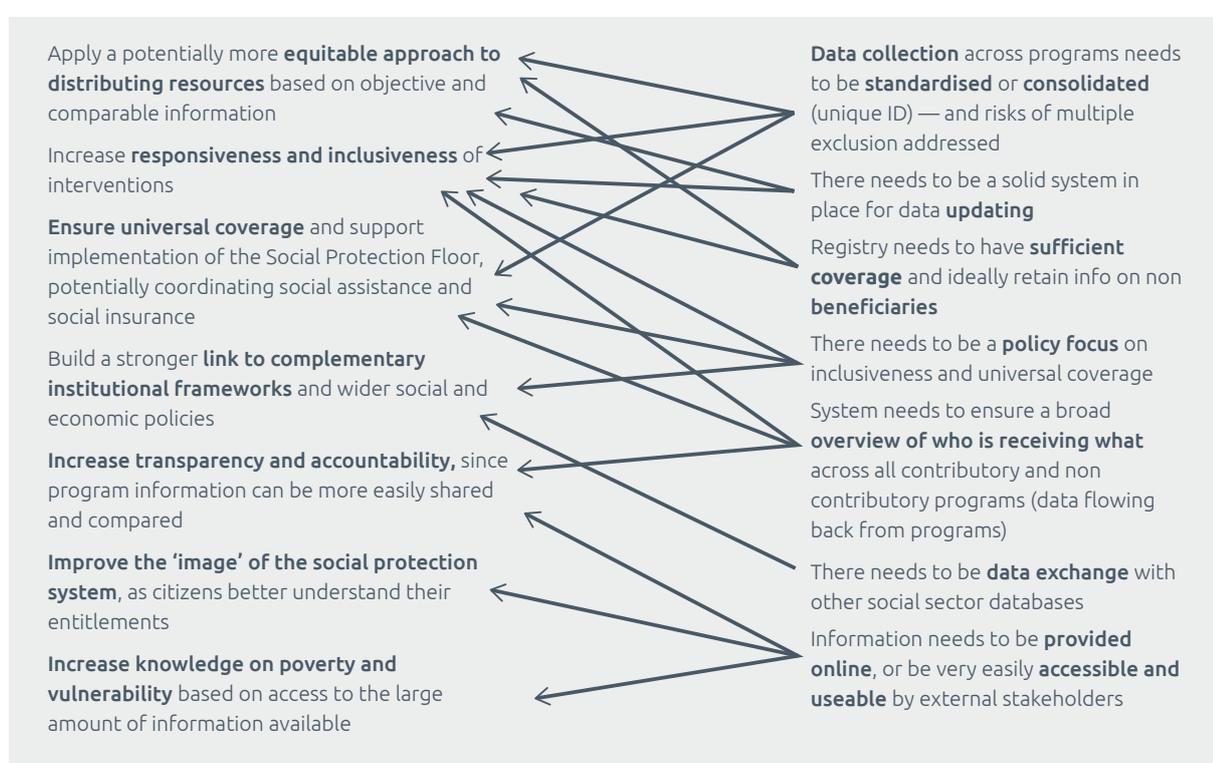| Potential advantages to integration	Extent achieved to date	Related challenges and risks	Also see section
Operational			
Facilitated oversight of multiple schemes and reporting to policymakers	✓✓	Risks excessive focus on operational rather than policy aspects and insufficient effort to establish an integrated M&E system based on social registry data.	4.2.3
Improved budget planning and ability to model and test policy changes	✓✓	Modelling and testing of policy changes should also become standard practice (building in-house capacity).	4.4
Decreased burden on staff (e.g. less paperwork, less manual reporting)	✓✓✓	The additional burden posed by the maintenance and management of social registries should not be underestimated. To a lesser extent, this is also the case for integrated beneficiary registries and virtual registries. In all cases, there is need for a careful assessment of capacity at all levels of implementation.	4.1.3
Decreased burden on potential applicants and potential to establish a 'common entry point' for social protection	✓	Not the case where this is not a policy priority.	1.2.3 4.2.5
Avoidance of duplication of effort (and cost saving), for example in data collection activities for program targeting	✓✓✓	Potential concerns regarding updating of data.	4.4
Established common systems across all schemes (e.g. payment system, grievance mechanisms), increasing efficiency and saving money	✓	Depending on country context and priorities, the potential for further integration is high.	4.2.5
Better manage error and fraud and monitor multiple payments (keeping track of who is receiving what)	✓✓✓	Highly successful in cases where national ID or social security ID numbers can be used to cross-check databases. However, risks being used to punish 'double-dipping' rather than keeping track of who is receiving what across multiple programs (catered at different needs of beneficiaries).	1.2.1
Further digitalise service delivery, potentially reaching out to citizens in new ways (e.g. mobile phones)	NA	This was not a focus of this review but should be further researched.	
Enabled transition of beneficiaries between schemes as their circumstances change	✓	Strong focus on avoiding 'double-dipping' across programs rather than the adoption of a life-cycle approach to social protection provision, or linkage of social assistance and social insurance. Also, risk of insufficient updating of data to reflect ongoing changes of circumstances households face.	4.2.2
Establishment of more effective emergency responses	✓✓	High potential, yet using existing data for emergency response may not always be appropriate because of the very nature of emergencies, which can affect households across the social spectrum and shake up the poverty profile of affected areas. Needs careful evaluation and policy direction (preparedness planning).	4.2.7

Source: Developed by the author.

Figures 9 and 10 below summarise the conditions that need to be in place in order to be able to reap the policy and operational advantages of integration: these need to be explicitly pursued when setting up the system or they will compromise achievement of the potential benefits.

Figure 9 Potential policy advantages and examples of necessary conditions

Facilitate **oversight** of multiple schemes and report to policymakers & improve **planning** and ability to model and test policy changes

Ensure **reinforcing measures** and/or complementary interventions to disadvantaged households & enable beneficiaries to transition between schemes

Better **manage error and fraud** and monitor multiple payments (keeping track of who is receiving what)

Decrease the **burden on staff** (eg less paperwork, less manual reporting etc)

Decrease the **burden on potential applicants** (ie can apply for several programs at once)

Avoid **duplication of effort**, potentially establish a 'common entry point' for social protection & **common systems** across schemes

Establish more **effective emergency responses**

System needs to ensure a broad **overview of who is receiving what** across all contributory and non contributory programs (data flowing back from programs)

Need some form of **unique ID**

System should **respond to needs of staff** at all levels

Back office integration needs to be accompanied by **front office integration** (eg Single Window Service)

There needs to be strong **coordination** from central level and **policy vision**

Registry needs to have **sufficient coverage** and ideally **retain information on non beneficiaries**

Figure 10 Potential operational advantages and examples of necessary conditions

Apply a potentially more **equitable approach to distributing resources** based on objective and comparable information

Increase **responsiveness and inclusiveness** of interventions

Ensure universal coverage and support implementation of the Social Protection Floor, potentially coordinating social assistance and social insurance

Build a stronger **link to complementary institutional frameworks** and wider social and economic policies

Increase transparency and accountability, since program information can be more easily shared and compared

Improve the 'image' of the social protection system, as citizens better understand their entitlements

Increase knowledge on poverty and vulnerability based on access to the large amount of information available

Data collection across programs needs to be **standardised** or **consolidated** (unique ID) — and risks of multiple exclusion addressed

There needs to be a solid system in place for data **updating**

Registry needs to have **sufficient coverage** and ideally retain info on non **beneficiaries**

There needs to be a **policy focus** on inclusiveness and universal coverage

System needs to ensure a broad **overview of who is receiving what** across all contributory and non contributory programs (data flowing back from programs)

There needs to be **data exchange** with other social sector databases

Information needs to be **provided online**, or be very easily **accessible and useable** by external stakeholders

5.2 Key lessons emerging from the literature

5.2.1 Policy

From a policy perspective, several lessons emerged from the review of the scarce literature on this topic.

First and foremost, it was clear that achieving integration of data and information management in the social protection sector is mostly a result of coordination and political will, rather than a technical 'fix' that helps rationalise governance of social protection programs. Countries without a systems or holistic approach to social protection provision are unlikely to succeed with information integration. In fact, a critical factor appears to be the level to which the creation of a social registry was clearly articulated in national development plans, national social protection policies and strategies, and other strategic documents and legislation.

Second, the vast majority of efforts to integrate data and information management have focused on a subset of interventions aimed at providing social assistance to the poorest and most vulnerable households rather than integrating social protection as a whole (e.g. also focusing on social insurance and labour market interventions). This is not a problem per se but should be acknowledged when discussing the topic — and potentially explored as an arena for further integration. This broader integration could be instrumental in making the right to social protection a reality for all residents by ensuring universal coverage. Further, it would allow better support for individuals across their life cycle through the smooth transition from one scheme to another, and ease portability of entitlement across schemes.

Third, the policy drive towards integration has been very often dominated by a focus on consolidating registration and determination of eligibility across several programs, through social registries. The rationale for this has been strongly linked to the opportunities to maximise coverage of the poor and minimise leakages to the non-poor, to achieve cost-efficiency and transparency. While these objectives have been reached in several countries, it is important to recognise:

a) that there are other approaches to developing integrated systems for information management beyond the establishment of social registries. This includes integrated beneficiary registries and virtual registries

b) that there are potential downsides to consolidating registration and determination of eligibility, and that there is no method that allows perfect selection of those in need (the definition of poverty is subjective). Most importantly, this includes the risk of systematically excluding certain types of households from all social sector schemes (the potential beneficiary is 'all in' or 'all out').

It could therefore be important to shift the main focus of integration towards better serving a country's poorest and most vulnerable citizens throughout their life cycle, improving access to services and increasing responsiveness and inclusiveness of social protection interventions. On one side, this could be done by simplifying registration processes and interactions with citizens (e.g. one point of contact, streamlined information flows). On the other, the large amounts of information available within social protection information systems could more usefully be used to simulate policy shifts, understand poverty dynamics and more generally support evidence-based decision-making among policymakers. One further potential application could be the use of existing data for the delivery of additional support in the event of a humanitarian emergency.

Fourth, attempts to integrate information management could usefully go hand in hand with a policy aimed at civil registration of all households and provision of a national ID number, as only in the presence of a unique ID can true virtual integration be achieved across government sectors. For example, social protection schemes can offer a great opportunity to reach out to households least likely to have a national ID. However, there are also important privacy and security risks to the state collecting large and detailed amounts of information on its (poorest) citizens that need to be addressed at the early stages of policy development.

5.2.2   Implementation

Several lessons emerge from the experience of countries that have set up integrated systems for information management. With a specific focus on social registries (but with lessons that also apply to integrated beneficiary registries and virtual registries), best practice dictates the following.

With institutional arrangements, there are benefits to creating an independent unit to manage the new system at a sufficiently high government level to ensure effective coordination. This coordination is best achieved by identifying all relevant stakeholders and formalising their roles and responsibilities through legally binding agreements, carefully designed incentives and mutually agreed terms of reference, while also ensuring regular discussions (e.g. inter-ministerial meetings). Institutional 'buy-in' can also be achieved through an ongoing bargaining/negotiation process aimed at demonstrating and clarifying to each stakeholder 'what is in it for them' (e.g. through needs assessments and participatory planning processes — see also Annex 2). Importantly, vertical and horizontal coordination should focus on acquiring data and securing access to consolidated information for other stakeholders (defining user rights for each).

The administrative structure for managing an integrated system depends on country context (e.g. level of decentralisation, capacity of local structures and staff). Many countries have adopted an approach by which overall design and guidance is centralised and specific implementation — most importantly data collection — is performed locally (e.g. through municipalities). This approach has proved successful as it takes advantage of local know-how and creates buy-in from lower levels of government while guaranteeing oversight and technical uniformity. Granting access to consolidated data to local government units for their own programs has also helped ensure buy-in.

With the data collection strategy for the social registry, countries with mature registries tend to combine three different approaches — on-demand registration, census surveys and virtual integration — to varying degrees and, in doing so, reap the benefits of each. This includes managing costs and reaching the largest number of households, as well as keeping information as updated as possible. Countries deciding to set up a new social registry should also carefully assess whether there is a need to 'start from scratch' or whether existing data sources could help in the process. The model chosen depends on the historical trajectory of social protection in the country and on the country's endowments. No model is preferable to others per se. Overarching best practice has also been to manage the amount of data collected by keeping data focused on core objectives and prioritising/negotiating pressure from other institutions.

One of the most important implementation issues when discussing integrated data management is updating data. For example, a system that bases determination of eligibility on a static snapshot will likely face serious challenges in providing support to those most in need (especially given the transitory and often seasonal nature of poverty). Best practice, in this case, comes from countries that have achieved such a level of online integration between databases that updates to one immediately result in updates to the centralised system, while on-demand systems also allow for continuous updating.

Moreover, the risk with integrated systems is that they may generate 'data overload': too much information that is not available at the right time and in the right format and is therefore not effectively used. In order to address this gap between data and information, it is important to develop tailored reporting systems for different actors and semi-automated data extraction tools, while also offering innovative visualisation options (maps, dashboards, interactive charts etc.).

From an IT perspective, developing a tailored software application that fully and flexibly responds to changes in policy and procedure is paramount in this field. This highlights the importance of adopting a modular approach, using iterative prototyping (whereby a model of the system is designed and used to customise for and seek feedback from users) and open-source software where possible, building in-house capacity to develop and update the system. These provisions enable the system to be tailored to suit the changing needs of those primarily involved in its use and enhance a sense of local ownership that is essential for system success.

On a last note, evidence has shown that many countries have had to rely on external donor financing to cover the considerable costs of developing a social registry and its associated software application. Effective strategies for ensuring buy-in from government counterparts have included quantifying and communicating financial benefits of integration where possible (efficiency gains, economies of scale, value for money), highlighting potential benefits of data-sharing for each stakeholder and spreading capital or infrastructure investments over a number of years.

5.3 Conclusion: factors to consider when setting up an integrated system for information management

Overall, it is clear that what really matters when creating a social protection information system is the level of coordination and interoperability of the selected approach, not the creation of a super-sized, comprehensive social protection or government registry that encloses all others. There is no ideal model. What matters is that the system chosen responds to a country's needs, is appropriate to its context and is affordable and sustainable.

The evidence shows that there are multiple advantages of integrating data and information management, especially if the overall policy environment is conducive to an integrated approach within the social protection sector and beyond. However, given the financial costs involved (Section 4.4), it is essential that countries weigh costs and benefits of different solutions based on an assessment of their situation. Table 11 provides some guidance on the key issues to consider and evaluate. A practical checklist of questions for a potential needs assessment and feasibility study is provided in Annex 2.

Table 11 When is the development of an integrated social protection information system most feasible?

Dimension	Key issues
Policy environment and budget	» National policy focused on developing a systems approach to social protection (aiming to achieve coordination and harmonisation to fill coverage gaps and address the fragmentation that limits the effectiveness and impact of social protection policies and programs) » Integration of data and information management clearly articulated in national development plans, national social protection policies and strategies, and other strategic documents » Strong political leadership advocating for reform and coordinating institutional actors » Focus on ensuring political buy-in and ownership of all actors, including social partners and representatives of beneficiaries, by addressing advantages for each (e.g. through participatory planning process and stakeholder mapping) » Sufficient capacity to identify and cost policy options, assess affordability and identify available financing options » Budget availability (and policy support) to back the vision » Acceptance of slow, iterative process and failures
Staff availability and capacity	» Highly trained and qualified staff, motivated through a performance management system, and at a sufficiently high salary to guarantee retention — both at central and local level » Sufficient budget for continuous staff training and retention » Culture of sharing and problem solving, e.g. no resistance or complacency of staff wanting to keep the system as it is » Presence of 'hybrid' staff who understand the context, organisation and work processes of their sector and the role of information systems

Dimension	Key issues
Governance and institutional structure	» Existence or easy creation of an independent unit in charge of managing the new system at a sufficiently high government level to effectively coordinate with all stakeholders » Role of the integrated social protection information system and its managing unit embedded in legislation » Potential for strong institutional ties with other government bodies » Absence of parallel or competing structures for oversight of social protection policy (no power struggles) » Stakeholders clearly identified and their roles formalised through legally binding agreements, carefully designed incentives and mutually agreed terms of reference » Decentralisation approached as a resource rather than impediment, providing added value to decentralised government (tailored functionality and data sharing), involving local government and creating performance incentives
Wider country context	**Hardware (e.g. computers and server)** » Adequate hardware available at local levels (these can be purchased, but this increases costs significantly) » Adequate servers — high-capacity computers — that can be scaled up to accommodate potential growth (e.g. a designated server room with reasonable physical and logical security that conforms to ISO 27001) » Stable provision of electricity **Application software and database** » (If needed) potential to create a large database that is scalable, flexible and performs well » Clarity of functional requirements and technical specifications at policy level. Key questions — such as purpose, benefits, hosting and nature of users — should be addressed at the feasibility stage and agreed by all stakeholders » Availability of capacity to support and administer the relevant software, database and network **Transfer of data** » Existence of a solid system for a unique ID for social protection (national ID or social security number) that can be used as a backbone to integrate data across sources » Ideally internet access at all levels of implementation, including local (to build web service access that greatly improves information flow) » Clearly documented protocols enabling quality controls on information before it is submitted over the internet or transferred by batch process » Adequate legislation and procedures ensuring data privacy and security

Source: Developed by the author.