

Case study 4: Kenya¹⁰⁵

Name: Single Registry

Overall classification: integrated beneficiary registry

Data collection approach: data sharing from existing program MISs (which collect data using different approaches)

Breadth of integration: integrates across Kenya's five main social assistance programs and exchanges data with the national ID database

Depth of integration: key objective is to provide coordination, oversight and integrated monitoring and evaluation across programs; external data from the national ID database is integrated for the purposes of data verification

Number of individuals registered: approximately 3.7 million (8 per cent of population)

This case study focuses on Kenya's recently implemented Single Registry. This can be classified as an integrated beneficiary registry with a web-based reporting interface that provides a platform where common and essential information across five social assistance programs is stored, analysed and reported. In detail, the Single Registry enables the government of Kenya to link together the management information systems (MISs) of its five major social protection schemes: the Old Age Grant, Disability Benefit, Orphans and Vulnerable Children's Cash Transfer, Hunger Safety Net Programme, and World Food Programme (WFP) Cash for Assets scheme.

Kenya's Single Registry is very different in design compared to attempts in other countries to develop social registries. Kenya's system is essentially an integrated beneficiary registry ('data warehouse') holding information on all the beneficiaries of the national social protection system, and is continuously and automatically updated as individual program MISs update their information on beneficiaries. The Single Registry — which offers a publicly available online version sharing aggregate data trends — acts as a single point of reference to give an overview of who is receiving, what type of assistance (and how much), where the assistance is received, and when the assistance is transferred. In May 2016, the Single Registry was populated with information on 883,000 beneficiary households (approximately 3.7 million individuals) out of a population of 44 million, equivalent to 8 per cent of the national population.

Background and historical evolution

Historically, social protection programs in Kenya were not well coordinated. They were fragmented, presenting duplications and inconsistencies, and were led by different agencies, resulting in a lack of efficiency (World Bank 2012c). Over time, there was growing recognition that there should be a systematic approach to data and information management across the sector.

Kenya's Social Protection Policy, which was gazetted in 2012, comprehensively addressed policy coordination, including the institutional framework and management information systems needed to make it happen. The policy also envisioned the country's Single Registry as playing a central role in establishing a coherent and scalable approach to social protection: 'The Government recognizes the need to establish a management information system (MIS) for social protection in Kenya'.¹⁰⁶ This vision was also reflected in the medium-term plan of Kenya's Vision 2030 and was strongly led by the National Social Protection Secretariat.

In 2011, the process to achieve such integration was not clear. Some of the programs that were going to be integrated did not have an electronic database or related MIS, while none of the existing databases could

105 The main sources for the information provided in this case study are WFP's Complementary Initiative June 2015 'In Focus' on the Single Registry; and a DFAT-promoted webinar hosted by socialprotection.org (and related presentation). The case study, which was authored primarily by Richard Chirchir, also greatly benefited from extensive inputs from Winnie Mwasijaji and Eva Mwangi from Kenya's Social Protection Secretariat.

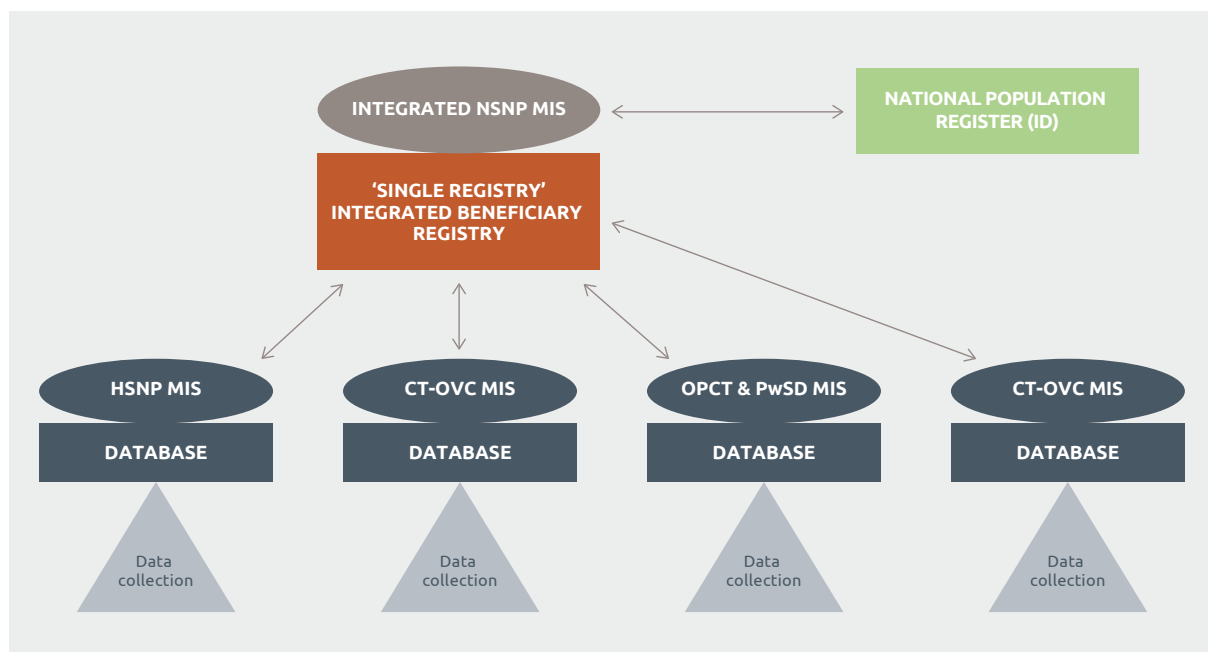
106 National Social Protection Policy, p. 22.

speak to each other and no standardisation of data existed across databases (e.g. there was no use of standard geographic locations across programs). To tackle these problems, in 2011 a working group was established with members from the country's five core programs to start discussing standardisation. Recommendations developed on the basis of ongoing assessments led to a first achievement, with government-led cash transfer MISs harmonised in 2013. With technical assistance from WFP, full integration across programs was achieved in 2014–2015, including integration with the country's civil registration authority. The system went into full use by April 2015, when linkage to civil registration was established.

Programs supported by Kenya's Single Registry

As illustrated in Figure 16, the Kenyan Single Registry consolidates information from five of its main schemes' MISs into an integrated beneficiary registry. Information on non-beneficiaries is kept by individual program MISs and their databases.¹⁰⁷ The programs are (i) the Hunger Safety Net Programme, (ii) the Persons with Severe Disability Programme, (iii) the Older Persons Cash Transfer, (iv) the Orphans and Vulnerable Children Programme, and (v) the WFP Jenga Jamii Programme.

Figure 16 Programs that form Kenya's Single Registry



Source: Developed by authors based on discussions with the Ministry.

Note: Boxes indicate databases; circles indicate MISs; bold lines indicate direct link (e.g. web service access); arrows indicate information flowing in both directions. In the case of Kenya, information flowing from the integrated beneficiary registry to the programs is on duplicate beneficiaries across programs (data is collected by individual programs, then shared and cross-checked against the 'Single Registry').

107 For OCPT, PwSD and CT-OVC (see below) ineligible households do not receive any other form of support. For HSNP, out of 374,000 registered in the program's second phase, 100,000 are provided with regular and predictable payments, while 274,000 receive support during emergencies. There are plans to scope out how the Single Registry will report on both regular transfers and emergency transfers.

- » Hunger Safety Net Programme (HSNP). This is an unconditional cash transfer designed to respond to the growing levels of chronic food insecurity in Kenya's arid lands and reduce poverty in northern Kenya.
- » Orphans and Vulnerable Children Programme (CT-OVC). This is a program with the objective of improving the welfare of poor households with orphans and vulnerable children and retention of children within these households, to mitigate the impacts of HIV/AIDS. OVCs are defined as children who have lost one or both parents, are chronically ill or have a caregiver who is chronically ill, and/or live in child-headed households as orphans.
- » Older Persons Cash Transfer (OPCT). The program targets extremely poor households that include a person aged 65 or older who is not already receiving a pension. Designed in recognition of the fact that older persons constitute a sizeable poor population, the program aims to strengthen the capacities of older persons and improve their livelihood.
- » Persons with Severe Disability Programme Cash Transfer (PwSD-CT). The program was created to provide immediate relief from extreme poverty for people with severe disabilities who are unable to look after themselves and require permanent care.
- » WFP Jenga Jamii Programme. This is a large-scale unconditional cash transfer program implemented across Kenya's arid and semi-arid lands.

Institutional arrangements

The National Social Protection Policy vests in the National Council for Social Protection¹⁰⁸ the overall strategic direction for social protection. Support and coordination is provided by the Social Protection Secretariat, located within the Ministry of Labour and East African Affairs (MoLEAA). Since Kenya's Single Registry is essentially a warehouse, holding information on all the beneficiaries of the national social protection system, data collection and updating is undertaken by individual program MISs. Therefore, the individual programs play an important role in the collection and updating of data of the overarching integrated beneficiary registry. Table 12 below lists the institutions that are responsible for managing the existing social assistance programs, all of which have been configured to automatically populate Kenya's Single Registry.

Table 12 Institutional roles and responsibilities for updating the Single Registry

Institution	Function	Programs
MoLEAA – Department of Social Development (DSD)	Data collection Data updating	Older Persons Cash Transfer Programme Persons with Severe Disability Programme
MoLEAA – Department of Children Services	Data collection Data updating	Orphans and Vulnerable Children Programme
National Drought Management Authority	Data collection Data updating	Hunger Safety Net Programme
World Food Programme (WFP)	Data collection Data updating	Cash Transfer Module Programme
MoLEAA – Social Protection Secretariat	Data consolidation Data warehousing Reporting; Data sharing	National Safety Net Programme

108 Bill soon to be passed.

The head of the Social Protection Secretariat is fully responsible for the overall management of the Single Registry. Technical administration (data back-up and ensuring that the system is up and running) is undertaken by an MIS coordinator supported by two assistants. Since effective functionality of individual program MISs is important to ensure update of the Single Registry, an MIS working group was created to bring together MIS specialists from individual programs, coordinated by the MIS Coordinator at the Secretariat. This group leads in providing technical oversight of Single Registry development. An external consultancy firm, Development Pathways, was contracted initially by the UK Department for International Development (DFID) and more recently by the WFP to build and maintain the Single Registry.

At the program level, the staff responsible for administration of the individual program MISs are:

- » one MIS Coordinator and one assistant at the DSD
- » one MIS Coordinator and two assistants at the Department of Children Services
- » three MIS officers at the National Drought Management Authority.

How Kenya's Single Registry is structured in practice

Data sources and linkages

As discussed above, the main sources of data for the Single Registry are the country's five social protection program databases. The broad range of data available within the Single Registry is set out in Table 13 below.

Table 13 Information kept within the Single Registry

Registration	Members	Characteristics	Payments	Complaints
County	ID number	Dwelling characteristics	Transfer amount	Date of submission of complaint
District	Names	Assets	Frequency of payment	Reasons for complaint
Division	Sex	Flag whether household benefits from other programs	Dates of actual payment	Stage in process (and date)
Location	Relationship to head of household	Type of program	Amount paid	Confirmation of action taken
Ward	Birth certificate	Real estate ownership		Date of resolution
Sub-location	Age	Employment terms		
Village	Orphanhood	Business ownership		
Physical address	School attendance	Income		
Landmark	Grade	Expenditure		
GPS coordinates	Disability	Meals		
	Chronic illness			
	Occupation			
	Marital status			

To ensure that data on the Single Registry and program MISs is verified (i.e. accurate), the Single Registry is also linked to Integrated Population Registration Systems (IPRS) — a department in the Ministry of Interior and Coordination that maintains the 30 million plus National Population Register — and to other government and private sector providers using an automated software mechanism (web services). It is worth emphasising that the registration of potential beneficiaries for safety net programs in Kenya was historically conducted by recording personal information from formal types of identification, including national identity cards and passports. The integration of the Single Registry and IPRS enables the National Safety Net Programme (NSNP) to verify details of its beneficiaries and authenticity of potential beneficiaries before enrolling them.

How data is collected and updated

Data collection and updating for Kenya’s Single Registry is undertaken by individual programs. Owing to the fact that these programs have been set up for different purposes, their registration (data collection) approaches and data needs are different. There are plans currently to standardise information collection.

In terms of registration, except for HSNP (which followed a ‘pure’ census approach for its second-phase registration), other social assistance programs in Kenya undertake a ‘push’ registration on an annual basis. For the purposes of this case study, push registration is defined as a process whereby government purposely and periodically goes to communities to register a set number of beneficiaries through ad hoc committees and with help of local administrators, without resorting to a door-to-door census (Kidd and Hossain 2014). Table 14 describes the historical data collection process by each individual program in the Single Registry.

Table 14 Approaches to data collection and updating

Program	Data collection method approach	Data collection and updating process
OPCT/ PwSD-CT	Push registration (variant on census survey approach)	Geographic-based registration is undertaken by social development officers and location OVC committees. The numbers of registered applicants are based on quotas set by the expansion plan and government annual budget allocations. Besides regular updates to remove deceased beneficiaries, OPCT undertook a recertification process in 2015 with the aim of updating its list of beneficiaries and excluding households that are no longer eligible.
CT-OVC	Push registration (variant on census survey approach)	Geographic-based registration is undertaken by child welfare officers and location OVC committees. The numbers are based on quotas set by the expansion plan and government annual budget allocations. Besides regular updates, CT-OVC planned to pilot recertification during the 2015–16 financial year.
HSNP	Census survey	Registration is undertaken with support of contracted NGOs. HSNP is in the process of a re-registration process (2016). Once undertaken (registration and targeting), this will lead to an update of the Single Registry by providing a new set of beneficiaries.
WFP Jenga Jamii Programme	Push registration (variant on census survey approach)	Registration is undertaken with support of contracted cooperating partners based on program targets.

Except for HSNP and the WFP’s Cash Transfer Module Programme, which have electronic data collection systems, all the other NSNP programs (CT-OVC, OPCT, PwSD-CT and UFSP-CT) register households manually (first data capture). The paperwork is then transported from the field to the national office for transcription into the program MIS. Recently the DSD decentralised the transcription process from the national to the county level. So far, there has been an indication of a general improvement in the quality of data captured and the timeliness of the registration process, attributed to nearness to the data source.

Each program has specific operational guidelines to ensure currency of its data based on its targeting approaches. For example, three programs (OPCT, PwSD-CT and CT-OVC) are categorical schemes that are poverty targeted. These programs continuously update their data to exit beneficiaries who are no longer eligible. For instance, a senior citizen who has died or an orphan who has turned 23 are exited from OPCT and CT-OVC respectively. When this happens, the Single Registry is automatically updated. The Single Registry is also updated to bring in replacements for beneficiaries who have been exited. This is very common with OPCT. Finally, as discussed above, large enrolments of new beneficiaries are normally undertaken annually based on government budget allocations and in line with expansion plans.

How data is transferred

Until early 2015, the transfer of data from program MISs to the Single Registry was not automatic. This meant that data had to be moved manually and the process did not guarantee up-to-date data at the Single Registry. As a result, two methodologies for automatic transfer of data between individual MISs and the Single Registry were tested: (i) data exchange using web services, and (ii) automatic replication using Microsoft SQL tools. A technical assessment of the two showed that the latter was appropriate for the Kenyan context because (i) all the program databases were set up with a Microsoft SQL server, (ii) technically it was possible to configure a homogenous replication mechanism, and (iii) using the web service option would have required more programming time. Therefore, an automatic replication of data from the CT-OVC, joint OPCT/PwSD-CT and HSNP MISs to the Single Registry was configured using an SQL server, giving each program database a mirror copy on the Single Registry server (thus acting as a real-time back-up).

Apart from sending data to the Single Registry, each program MIS can connect to the Single Registry and access its data using a web service (Bio Data Verification). The web service link enables programs (through their MISs) to access data on beneficiaries for the purposes of verification of potential beneficiaries before they are enrolled. This web service specifically ensures that adult members (with national IDs) of potential beneficiary households are (i) authenticated against the IPRS Population Register, and (ii) checked against the Single Registry to determine whether one member benefits from one or multiple programs.

The Single Registry currently works as a tool to support program monitoring and coordination of the social protection sector. As such, its primary users are program staff at the national and sub-national levels. Therefore, program staff working in national as well as decentralised units of government (counties and sub-counties) are also provided access to the Single Registry. In fact, the Single Registry 'enquiries module' has become an effective tool to respond to program queries, as it is accessible over the internet. The enquiries module is used to check whether beneficiaries have been enrolled by programs or whether payments have been delivered to beneficiaries. Going forward, there are plans to deepen the use of Single Registry data by targeting other government entities — e.g. other ministries and counties — at both national and local levels as well as providing an access portal to beneficiaries using national ID as search parameter.

Data from the Single Registry to external stakeholders is transferred in Excel format by email or on disk. The Social Protection Secretariat has developed and signed off data-sharing protocols that define procedures for (i) application for use of Single Registry data, (ii) assessing the application, (iii) approval sharing, and (iv) disposal of data. Examples of institutions that have requested data based on the protocols are other social protection programs; other national government institutions (e.g. parliament); implementation partners (e.g. payment service providers); donor organisations (i.e. DFID, DFAT, World Bank, UNICEF, WFP); and international and national NGOs.

How data is processed and used for targeting

After data is captured on program MISs, each undergoes a validation based on the procedures defined in program operations manuals. Each core step (registration, determination of eligibility and enrolment) is supported by individual program MISs. The data that is consolidated in the Single Registry is only from program beneficiaries.

Importantly, however, the overarching integration has added value to the verification phase for each program in two ways: (i) by enabling a check of potential beneficiaries against the Single Registry to determine households that could be benefiting from more than one program, and (ii) by comparison with IPRS's national population registry to determine accuracy of the information collected on potential beneficiaries (especially ID numbers, names, dates of birth and sex). The potential beneficiaries who do not meet the criteria (i.e. are already enrolled in another program) are de-registered.

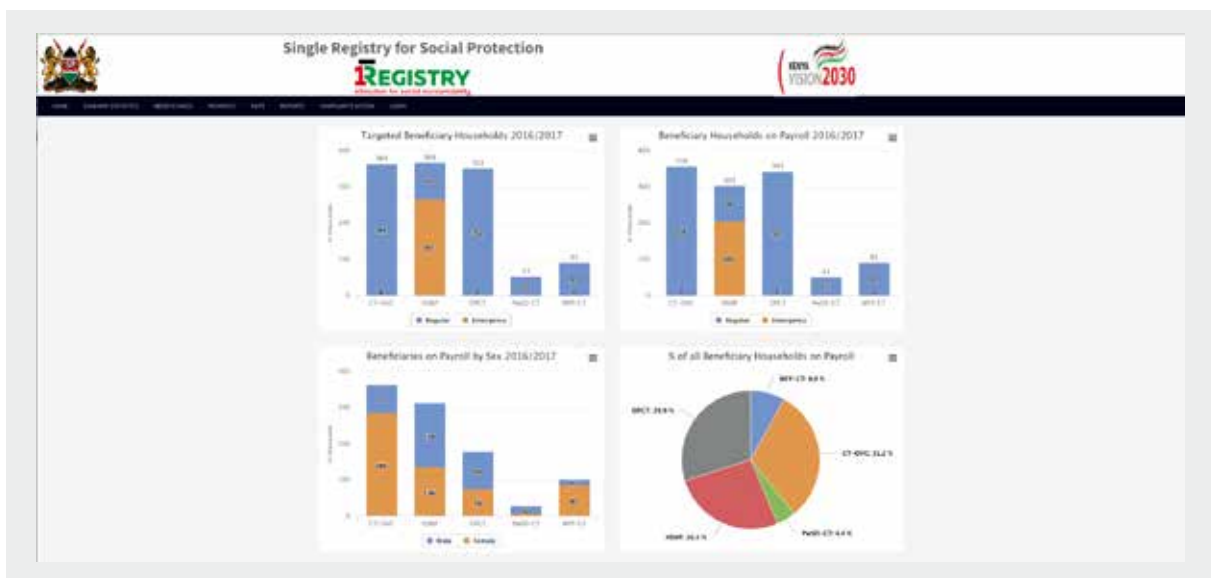
How information is used

The Single Registry through its MIS platform is used for organising and managing the data for social protection programs in Kenya. It enables the flow and management of information within and between social protection programs and, in some instances, other sectors. The information is utilised by local and national government, policymakers, and social safety net program designers and managers. Kenya's Single Registry responds to the following stakeholder issues:

- » Prevention of error/fraud. Information in the Single Registry is run against data on the IPRS National Population Register (30 million individuals), allowing program managers to be sure that beneficiaries' details are accurate/verified
- » Program efficiency and effectiveness. Cross-checking is carried out on whether beneficiaries enrolled in a program are on the payroll, and whether the number of beneficiaries scheduled to be paid equals those actually paid
- » Monitoring program implementation. The Single Registry supports program monitoring and has a specific report that allows monitoring of the selected indicators across programs
- » Planning expansion of social protection programs. The expansion plan of the NSNP has been integrated with the Single Registry so that users can cross-reference attainment against objective for any program
- » Foundation for establishment of common delivery systems. With a consolidated payroll of beneficiaries from existing cash transfer schemes, the Single Registry is a key resource for creating other common delivery systems, including payment systems, which will reduce the costs associated with delivering benefits
- » Basis for emergency response. HSNP sub-registry contains bank account details for households in the four poorest counties (Turkana, Wajir, Mandera and Marsabit), enabling emergency response in case of drought.

Since February 2016, the Social Protection Secretariat also provides open web access to the data on key performance indicators of the NSNP.

Figure 17 Sample of Single Registry summary statistics



Data security and privacy

The Social Protection Secretariat has developed comprehensive data protection and sharing protocols. The NSNP data-sharing protocols have five purposes: (i) provide a framework for the secure and confidential sharing of information, (ii) ensure personal information is handled in a sensitive manner and only disclosed on a need-to-know and need-to-use basis, (iii) provide a basis for sharing anonymised data about an individual beneficiary or member without consent in a form where the identity cannot be recognised, (iv) create a transparent procedure to increase usage of the NSNP data to layer additional services to cash transfer beneficiaries, and (v) ensure that the rights of program beneficiaries, especially their privacy rights, are not infringed, as enshrined in the Kenyan Constitution and other international conventions. The data-sharing protocols are based on the Kenyan Constitution; Kenya's Data Protection Act 2013; and other international conventions such as the Council of Europe Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data, United Nations Guidelines Concerning Computerized Personal Data Files, OECD Guidelines on the Protection of Privacy and Trans-Border Flows of Personal Data, and Universal Declaration of Human Rights.

Summary and aggregated data on the programs that form the Single Registry can be accessed through a public portal. However, personal data and data on beneficiary household listing are accessed on a need-to-know and need-to-use basis. For all data requests, the applicants must assent to data confidentiality agreements that have specific guidelines on use and disposal of the data.

Main challenges and lessons learned

The management of information for the different social protection programs in Kenya has been significantly improved since the inception of the Single Registry. Social protection programs in Kenya are better managed and operated, while the coordination, oversight and monitoring of the social assistance sector is made possible by the Single Registry. The Single Registry has enabled the government and other key stakeholders to conceptualise the programs in a clear and coordinated manner.

Key lessons from the implementation of Kenya's Single Registry include the following:

- » Approaches to developing integrated systems for information management should be construed more broadly as a policy tool. Kenya's social protection policy underscored the need for the Single Registry and envisioned the set-up of individual programs with functional MISs populating the Single Registry
- » Adequate investment should be made to deliver quality single registry design, based on needs assessments and feasibility studies (see also Annex 2) — both important for long-term sustainability
- » The development of a single registry should be phased. Phasing helps ensure:
 - ease of managing project sub-components
 - incorporating lessons from previous phases in next phases
 - less risk of failure and risk of overwhelming existing capacity
 - ad hoc strengthening of business processes and systems.

The key challenges that have been experienced during the set-up include:

- » Conceptualisation: at first, it was difficult to technically conceptualise how social assistance programs could be coordinated. Now the model is clear and logical, but it took a lot of assessment and thinking to get there
- » Coordination: the Social Protection Secretariat had to undertake a massive task to actually coordinate individual programs to invest time and resources in an MIS. Now each social assistance program owns its own MIS and is a core part of the Single Registry. It works for all the actors involved
- » Resources: in order to save time and money in the future, an up-front investment is needed. Over the years, various development partners have stepped in to support the government in making this happen.

The next stage in the development of the Single Registry will be to ensure that all program MISs can be managed at district level — through a web-based system — and that information on beneficiaries can be updated as close to real time as possible. The broader plan is to also bring on board other components of the social protection system such as the National Social Health Insurance scheme and the National Social Security Fund.