

Uganda's National Single Registry: a foundation for a digital social protection ecosystem

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DEVELOPMENT
PATHWAYS

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1.1 Why was Uganda's National Single Registry established?

The Government of Uganda through the Ministry of Gender, Labour and Social Development (MoGLSD) has recently established a digital and integrated information system called the National Single Registry (NSR). The overarching goal of the NSR is to support the coordination of the broader social protection system and enhance national-level monitoring. Commissioned on 4th February 2021, the NSR brings together information on a range of national social protection systems, integrates information from the World Food Programme's (WFP) Karamoja Social Registry (KSR) and provides a unified gateway to the National Identification and Registration Authority (NIRA) for sector-wide verification of applicants and beneficiaries for social protection interventions.

The NSR draws its mandate from a strong social policy foundation. Uganda's Social Protection Policy and Programme Plan of Interventions explicitly identify the need for a policy tool – which is referred to as a 'Unified Registry' for social protection programmes – that would be used to harmonise and coordinate information management across the social protection sector. Internationally, there are two popular forms of integrated information management systems: a *social registry* and an *integrated beneficiary registry* or a *single registry*. While the social registries compile individual and household level data on socio-economic conditions of potential beneficiaries, the integrated beneficiary registries/single registries consolidate information about beneficiaries, payments and complaints and grievances across multiple social protection interventions. The choice of integrated information management model is typically shaped by a country's social protection policy, broader political economy considerations and other overarching opportunities and constraints.

The choice of one form of integrated information model does not preclude a country from including another component at another stage. While Pakistan, Brazil, Chile, Indonesia, Malawi, Ghana, Eritrea, and Turkey have established social registries, Kenya, Uzbekistan, and Rwanda started off with the single registries. But recently Kenya has moved to include a social registry module to its Enhanced Single Registry creating a unified platform that integrates functions of a social registry and single registry. Somalia is also implementing an integrated information management model consisting of both the single registry and social registry. Uganda's NSR by design incorporates both elements of the social and single registry as it has capability to store information of both potential beneficiaries (from the Karamoja social registry) and actual beneficiaries from existing social protection schemes.

Figure 1 illustrates the main web interface of the NSR. From the diagram, the Applicants' menu item is designed to include a combination of beneficiary and potential beneficiary details.



Figure 1: The National Single Registry web interface

The NSR is designed to provide accurate and transparent information on potential or actual beneficiaries for social protection programmes and allow linkages among multiple programmes for which the potential beneficiaries may be eligible. It also supports articulation, harmonisation, and identification of complementarities among social protection programmes. Since 2020, WFP with support from Sida has been supporting the NSR's implementation and maintenance phase.



Figure 2: Rationale for establishment of digital and integrated information systems

As illustrated in Figure 2, digital and integrated information systems are typically established to address four main issues: (i) provide a mechanism for rapidly reaching out to needy and vulnerable persons in case of shocks; (ii) improve efficiency and effectiveness in the delivery of social protection programmes; (iii) improve accuracy and integrity of social protection data; and (iv) enhance accountability and citizen empowerment by providing digital platforms for giving feedback. Building on global experiences, Uganda’s NSR was designed to address the following specific objectives:

- i. **Increased accountability and transparency:** A public reporting portal displays dashboards that provide summary statistics on key performance indicators such as number of applicants registered, number of beneficiaries enrolled, amounts disbursed, and complaints resolved – ensuring that the government is accountable for and transparent with its social protection disbursements.
- ii. **Improved reliability of information for evidence:** One of the components of the NSR is an integrated beneficiary registry, a form of integrated information system that consolidates monitoring and reporting functions for multiple social protection schemes, meaning that the data is more reliable. It is informed by the social protection sector monitoring and evaluation (M&E) framework. The warehousing feature and analytics capability enables the NSR to provide information for decisions based on approved harmonised performance indicators set out in the M&E framework.

- iii. **Improved targeting (geographical quotas and beneficiary selection):** The NSR consolidates data on the potential beneficiaries from the Karamoja social registry, an information management function that consolidates the registration function for multiple social protection programmes. This social registry function therefore provides a mechanism where social protection schemes from the region can extract comparative reports on eligible households against expansion plans. The targeting activities are also enhanced through provision of dashboards that compare beneficiaries enrolled against geographical quotas defined by social protection schemes.
- iv. **Better planning and coordination across programmes for management of beneficiaries and their benefits:** The NSR is designed with dashboards that set out the performance of each social programme against annual targets. The NSR also provides reports on specific social development indicators that are consolidated by the Office of the Prime Minister.
- v. **Better identification and prevention of benefit fraud:** The NSR is designed with a feature that analyses beneficiaries receiving multiple benefits. This feature is extended to social protection schemes through the Application Programming Interface (API). It provides social protection schemes with capability to validate their potential beneficiaries before enrolling them into social protection schemes. The linkage to NIRA ensures that social protection schemes can accurately authenticate the registered applicants before enrolling them into their programmes.
- vi. **Ability to assess the effectiveness, impact, and sustainability of social protection interventions:** The NSR provides a consolidated database of social protection interventions, which means we can better assess the social protection interventions. The data use and sharing is based on data sharing protocols.

1.2 What are the NSR's functions, features, and capabilities?

The NSR software application platform – consisting of both public and private portals – has been built with various components such as dashboards, ID verification service, analytics, reporting, a geographic information system (GIS), and a knowledge management system. The NSR software components were subjected to several reviews by the Steering and Technical committees. The NSR software components were then subjected to comprehensive user acceptance testing in December 2019 and the report of the completion of the development phase approved by the NSR Steering Committee in January 2020. This was followed by the procurement of hardware infrastructure and setup of a data centre at the MoGLSD, configuration of virtual private network links between a NIRA data centre and a MoGLSD data centre, installation of software components and linkages of the NSR and social protection scheme MISs.

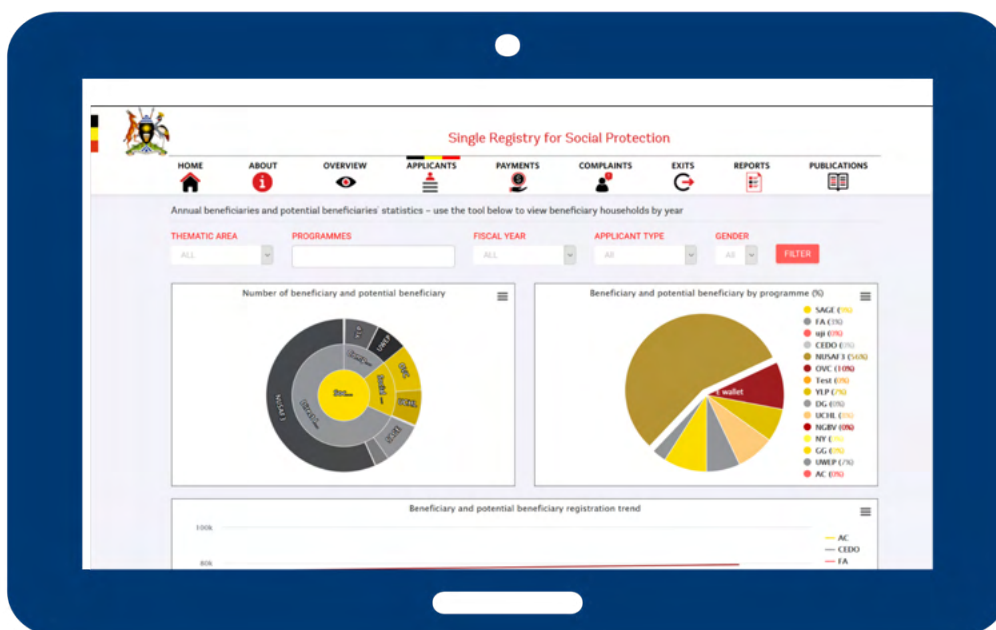


Figure 3: Snapshot of Uganda's National Single Registry dashboards

As illustrated in Figure 3, the NSR is designed with the following functions, features, and capabilities:

- i. **Applicant/beneficiary view:** Enables users to view the number of actual beneficiaries and potential beneficiaries for each social protection programme. The applicant/beneficiary data can be disaggregated by gender, administrative locations, and thematic areas.
- ii. **Payments' view:** Facilitates users to view the payments/disbursements/benefits made to beneficiaries disaggregated by thematic areas, programmes, and fiscal year.

- iii. **Complaints' view:** Enables users to view complaints logged and resolved. The view can be filtered by payments, programme, district, thematic areas, and fiscal year.
- iv. **Exits view:** Analyses data and presents views on beneficiary exits by reason, programme, and district as per thematic areas, programmes, and fiscal year.
- v. **Reports:** Employs a strong analytics function for viewing, producing, and downloading reports across various programmes' operational functions i.e., beneficiaries, payments, complaints and exits. The reports can be extracted by thematic area, programme, financial year, administrative location i.e., District/City, County/Municipality, Sub-County/Division/Town Council, Parish/Ward, Village/Cell.
- vi. **Publications:** includes a function for uploading, viewing, and downloading publications.
- vii. **Services:** Consolidates shared services such as NIRA National Identification Number (NIN) Verification, NIRA Bulk Verification and API Data Updates.
- viii. **Geolocations:** includes functions to view, create, edit, and search regions, districts, counties, sub-counties, parishes, and villages.
- ix. **Administration:** includes sub-modules to view, create, edit, and search benefits, sectors, programmes, programmes components, funding sources, exit types, complaint types, document types, documents, institutions, age groups, indicators, acronyms and definitions, and useful links.
- x. **Settings:** includes a function to change mail settings, function to view, create, edit, and search notifications, a function to change NIRA API settings, and a function to change account settings.
- xi. **Security:** includes sub modules for application roles, application users and Audit Trail.

1.3 What is the place of NSR in Uganda's digital social protection ecosystem?

The NSR is a policy tool that is designed to further the implementation of the National Social Protection Policy (NSPP). According to the NSPP, social protection systems are categorised into four thematic areas:

- i. **Direct income support** – non-contributory cash and in-kind transfers that provide relief from deprivation to vulnerable groups. Programmes include the Senior Citizen Grant and public works schemes.
- ii. **Social insurance** – contributory schemes targeting the working population that seek to mitigate shocks arising from ill-health, retirement, disability. Programmes include the National Social Security Fund, Public Service Pensions Scheme, and health insurance.
- iii. **Social care and support services** – providing care, support, protection, and empowerment to vulnerable individuals who are unable to fully care for themselves. Programme examples include:
 - Integration/re-integration of abandoned and street children within society;
 - Care and protection of children in conflict with the law; institutional support to vulnerable children, people with disabilities and older persons;
 - Care and support to gender-based violence victims and survivors, community-based rehabilitation for people with disabilities; and
 - Community-based care and support for older persons.
- iv. **Complementary services:** These include interventions articulated in policies for agriculture, health, education, employment, and finance sectors.

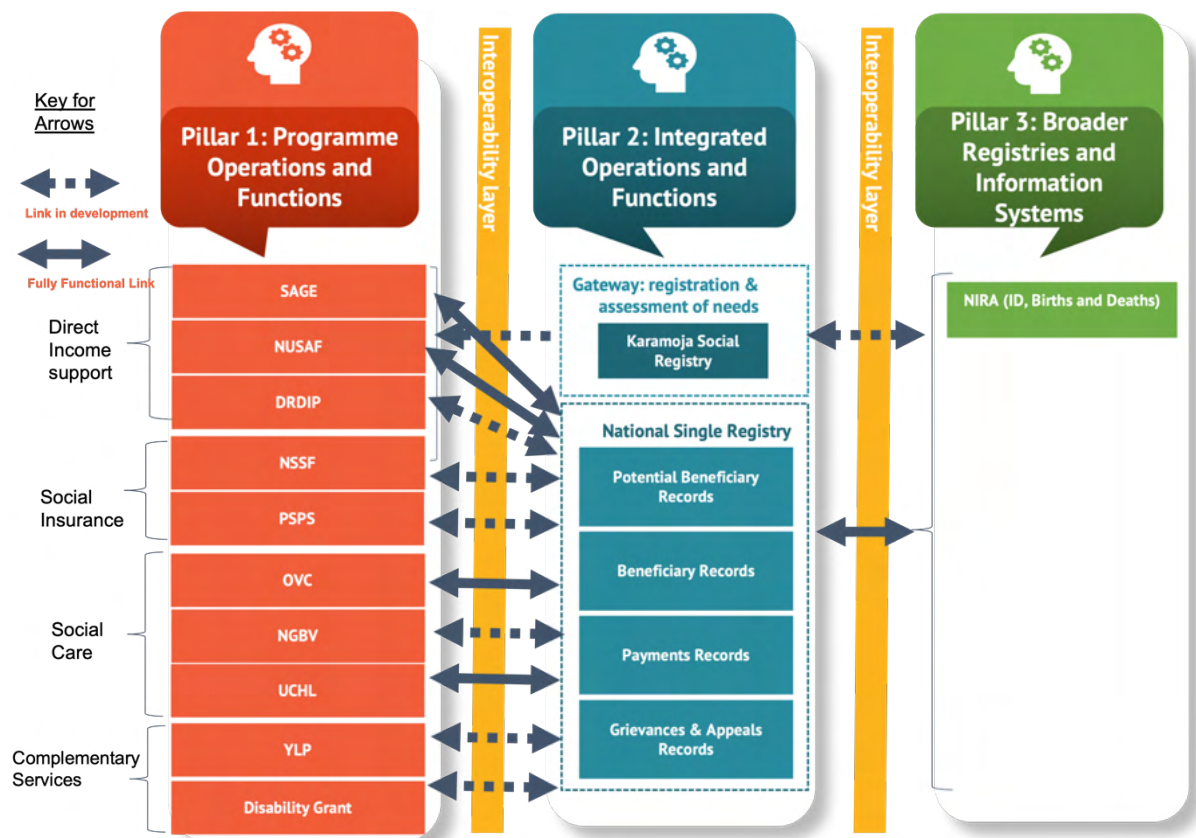


Figure 4: Map of Uganda's social protection MIS landscape

As illustrated in Figure 4, Uganda's digital and integrated information system ecosystem consists of the following elements¹:

- i. **Pillar 1: Programme operations** – The main social protection schemes linked to the NSR include:
 - a. **Social Assistance Grants for Empowerment (SAGE):** The Social Assistance Grants for Empowerment (SAGE) Scheme under the Expanding Social Protection (ESP) Programme provides a Senior Citizens Grant targeting older persons 80 years and above (the programme's original 15 pilot districts targeted persons 65 years and above – but the age was lowered in the case of the more vulnerable Karamojong region to 60 years). SAGE MIS has

¹ Chirchir, R. and Barca, V. [Building an integrated and digital social protection information management system: Technical paper](#). GIZ, 2020

established API link with NSR which is operational enabling it to automatically submit data and utilise the ID verification service.

- b. **Northern Uganda Social Action Fund (NUSAF):** NUSAF provides income support to build the resilience of poor and vulnerable households in Northern Uganda. The third phase of NUSAF ended in June 2021. The government is in the process of designing the fourth phase of the programme. The third phase of NUSAF programme consisted of four components: (i) labour-intensive public works (LIPW) and disaster risk financing (ii) livelihood investment support (iii) strengthening transparency, accountability, and anti-corruption (TAAC) (iv) safety net mechanisms and project management². The third phase of NUSAF included a management information system that had an automated link to the NSR.
- c. **Development Response to Development Impacts Project (DRDIP):** This is a multi-country development response by the respective Governments of Djibouti, Ethiopia, and Uganda. The proposed regional operation addresses the social, economic, and environmental needs of the local communities and displaced people (refugees and returnees) in targeted areas of the three countries. The Office of the Prime Minister (OPM) concurrently implements DRDIP, which follows the same approach as NUSAF and has a separate MIS which would be linked to the NSR.
- d. **Public Service Pensions Scheme (PSPS):** This is one of the main retirement benefits schemes in Uganda set up to benefit employees in public service such as nurses, teachers, prison officers and police officers among others, who upon retirement receive gratuity and life pensions. There are ongoing plans to establish a link between PSPS MIS and the NSR.
- e. **National Social Security Fund (NSSF):** This is the largest social security scheme in Uganda but is limited to the formal sector and covers employees who work in firms employing a minimum of five workers. The NSSF programme provides an age benefit, survivor's benefit, withdrawal benefit, invalidity benefit and an emigration benefit. There are ongoing plans to establish a link between NSSF MIS and the NSR.

² <https://projects.worldbank.org/en/projects-operations/project-detail/P149965>

- f. **Orphans and Vulnerable Children (OVC):** This is a Social Care and Support Services programme in Uganda with the objective of improving the welfare of poor households with orphans and vulnerable children to mitigate against HIV/AIDS. OVCs are defined, for the purposes of the programme, as children who have lost one or both parents, are chronically ill or who have a caregiver who is chronically ill; and/or live in child-headed households due to orphanhood. OVC MIS has established an API link with NSR which is operational, enabling it to automatically submit data and utilise the ID verification service.
 - g. **National Gender Based Violence Database (NGBVD):** This is a programme that provides social care and support services to those who have come to physical, sexual, psychological, emotional, or economic harm, including the threat of such acts, based on their gender. There are ongoing plans to establish a link between NGBVD MIS and the NSR.
 - h. **Uganda Child Help Line (UCHL):** UCHL is a medium through which children's issues are raised and systematically resolved through telephone helpline, walk-ins, conventional and social media and community awareness raising campaigns. UCHL MIS has established an API link with NSR which is operational enabling it to automatically submit data and utilise the ID verification service.
 - i. **Youth Livelihood Programme (YLP):** The Youth Livelihood Programme is a rolling Government of Uganda programme, targeting poor and unemployed youth in all the districts in the country. Funds are advanced to Youth Interest Groups (YIG) in the form of a Revolving Fund to increase outreach and enhance sustainability of the Programme. There are ongoing plans to establish a link between YLP MIS and the NSR.
 - j. **Disability Grant:** This is a Direct Income Support programme that provides support to persons with disabilities in line with the Disability Act (2006) by providing comprehensive protection against all forms of discrimination and equalisation of opportunities. The programme has two components: (a) social grants to groups of persons with disabilities and (b) community-based rehabilitation services. There are ongoing plans to establish a link between Disability Grant MIS and the NSR.
- ii. **Integrated operations and functions.** The main integrated information management functions include:

- a. **Karamoja Social Registry:** WFP has piloted a Community Registration Database in the Karamoja region of Uganda. Although the database does not have detailed registration parameters associated with most social registries, the design and functionality is similar to any social registry, as the purpose of the database is to enhance coordination of multiple humanitarian interventions in line with the objectives set out by the NSPP. WFP is in the process of migrating the data to the NSR. Efforts are also underway to scale up the KSR registry beyond Karamoja with GOU leadership.
- b. **National Single Registry (NSR):** The National Single Registry (NSR) is designed to support the coordination of the broader social protection system and enhance national-level monitoring. It has been designed with capability to store information on beneficiaries and non-beneficiaries. NSR MIS has established an API link with NIRA which is operational enabling it to act as gateway for ID services for all social protection schemes.

iii. Broader registries and information systems

- a. **National Identification Registration Authority (NIRA):** This is a national ID database that currently contains records of 17 million Ugandans aged 16 years and above. The NSR has an established link with NIRA for National Identification Number (NIN) verification.

1.4 How was the NSR established?

The NSR is anchored in Uganda's National Social Protection Policy (NSPP) and Programme Plan of Intervention (PPI), which were approved in 2015. These policy and strategy documents cascade from Uganda's Vision 2014, a national development plan which underscores the importance of social protection in addressing risks and vulnerabilities. The social protection policy and PPI explicitly identified the need for a tool – referred to as a 'unified registry' – which would be used to harmonise and coordinate information management across the social protection sector.

As part of determining the appropriate approach to harmonising and coordinating information management within the social protection sector, the Government of Uganda's Expanding Social Protection Programme (ESP) – with support from FCDO and Irish Aid – collaborated with World Bank and NUSAF3, through the latter's systems strengthening component, to develop the NSR.

ESP commissioned Development Pathways in January 2017 to assess the status of the existing social protection management information systems in the country with the aim of setting a foundation for the design and development of the single registry for social protection. The scoping study was completed in March 2017. Besides recommendations for strengthening existing social protection schemes, the scoping report also comprised a model of the single registry and technical guidelines for social protection scheme management information systems to link to the single registry.

1.5 Key implementation steps



Figure 5: NSR design, development, and implementation process

As illustrated in Figure 5, the building of the NSR was broken down into four phases: (i) design (ii) development (iii) implementation and (iv) maintenance. This process was based on the detailed project plan developed by the Single Registry Committee – a governance team created by MoGLSD’s Office of the Permanent Secretary – at the start of the assignment.

The **design phase** of the NSR, undertaken between November 2017 and March 2018, focused on detailed analysis and design of the existing social protection management information systems in Uganda, and development of the detailed requirements and design specifications for the NSR.

This was followed by a **development phase** where the system requirements and design specifications were translated into software application components between July 2018 and December 2019. The development was undertaken through an agile process jointly with the Steering Committee in an iterative manner, ensuring that feedback was fully integrated to build a platform that was responsive to user requirements.

The **implementation phase** was executed between March and December 2020 and included development of the documentation, provision of training and deployment of the NSR software components at the data centre, and linkages of the NSR with the priority programme management information systems and the NIRA ID verification service. Hardware was supplied through NUSAF3.

After the launch in February 2021, the Steering Committee commissioned a **maintenance phase** to support full operationalisation the NSR from August 2021-July 2022.

1.6 What are the institutional arrangements that support the NSR?

The Directorate of Social Protection at the MoGLSD has the overall strategic direction for social protection support and coordination across the country. Because the NSR is essentially a data warehouse, holding information on all the beneficiaries of the national social protection systems, data collection and updating is undertaken by individual programme MISs. Therefore, the individual programmes play a crucial role in the collection and updating of data.

The NSR data management framework is governed by the Memoranda of Understanding (MoU) that have been signed between the MoGLSD and the Ministries, Departments and Agencies (MDAs) responsible for implementation of social protection programmes. Currently, MoUs have been signed with the Office of the Prime Minister (OPM), National Information Technology Authority – Uganda (NITA-U), National Social Security Fund (NSSF) and National Identification Registration Authority (NIRA). The NSR is also designed to bring together information on a range of national social protection systems and will integrate information from WFP’s Karamoja Social Registry, which contains data for potential beneficiaries.

Table 1 lists the institutions that are responsible for managing the existing social protection programmes, all of which have been configured to automatically populate the single registry.

Table 1: Roles of single registry stakeholders

Stakeholder	Role
Ministries, departments, and ministries (MDAs) and local governments	<ul style="list-style-type: none"> • Provide policy and technical guidance. • Facilitate capacity building of key actors. • Set operating standards. • Conduct awareness creation and advocacy. • Mobilise resources for maintenance of the single registry. • Monitor the performance of the registry. • Participate in data collection/verification, processing, and reporting. • Support registration of citizens with a National Identification Number for the purposes of ensuring maintenance of common unique ID numbers. • Operations and maintenance of the single registry (MoGLSD).

	<ul style="list-style-type: none"> • Institute memoranda of understanding and data sharing agreements.
Social protection programmes	<ul style="list-style-type: none"> • Collect data on beneficiaries and associated transactions. • Maintain individual programme MISs. • Upgrade individual programme MISs to facilitate linkages to the single registry. • Upload/synchronise data for integration into the single registry. • Build capacity of staff to operate programme MISs. • Ensure accuracy of beneficiaries' data by validating with communities and verifying with the National Civil Registries.
Civil society	<ul style="list-style-type: none"> • Participate in monitoring and evaluation. • Create awareness and advocate for the usage of single registry data.
Academic and research institutions	<ul style="list-style-type: none"> • Research the operations of the single registry. • Support capacity building activities. • Provide consultancy services in monitoring and evaluation of the social protection sector based on single registry data.
Private Sector	<ul style="list-style-type: none"> • Participate in monitoring and evaluation. • Provide consultancy services. • Supply goods and provide non-consultancy services.
Media	<ul style="list-style-type: none"> • Disseminate information and share knowledge (awareness creation among the public). • Deliver advocacy campaigns for promotion of the single registry.
Target communities	<ul style="list-style-type: none"> • Provide personal data and household data during national registration and enrolment for social protection programmes. • Participate in data validation exercises. • Participate in monitoring and evaluation.

1.7 What are the key lessons from the design and implementation of the NSR?

The design of an integrated information system is a complex undertaking. It requires management of multiple issues and coordination with multiple stakeholders. The following insights were gleaned from the design and implementation of the NSR:

- **Need for a strong coordination mechanism:** The NSR design benefitted significantly from Uganda's well-coordinated social protection policy space. Social protection interventions are coordinated by MoGLSD with support from a dedicated unit at the Expanding Social Protection (ESP) secretariat. But that was not sufficient to deliver the NSR. The development and implementation phase were supervised by a cross-ministerial Steering Committee established by the MoGLSD Permanent Secretary. Key stakeholders outside the MoGLSD included the Ministry of Information and Communication Technology, National Information Technology Authority, Office of the Prime Minister, National Identification Registration Authority (NIRA), Ministry of Local Government, and development partners.
- **Existence of a social protection policy framework:** The design of the NSR in Uganda was underpinned by social protection policies, strategies and a scoping study which defined the broad parameters for the setup of the system including the guidelines for interoperability.
- **Multi-stakeholder funding streams over a 5-year period:** Development partners provide substantial support to the social protection system in Uganda in terms of cash to beneficiaries and design of the social protection system including the MISs. Regarding NSR, key partners FCDO and Irish Aid provided funding for the development phase, World Bank provided budget for procurement of hardware infrastructure via NUSAF3, and WFP with funding from Sida supported the implementation phase and currently supports the maintenance phase. Development partners have been united in their support for the NSR and consistently identified it as a priority for strengthening Uganda's social protection system.
- **Broader e-governance system:** NSR benefitted from the existence of the digital ID initiative, NIRA. Overall, the broader e-government landscape is rapidly expanding with a number of initiatives planned, including: (i) a payments gateway, a shared payment platform for Government services; and an (ii) Enterprise Service Bus, a platform to ensure that the linkages between the social protection sector programme MISs and external databases – such as NIRA – through a single registry can be efficiently managed by connecting through the 'NITA-U Bus'.

- **Governance framework:** Uganda established a strong cross-government steering team led by a director to manage the development of the NSR. Considering that multiple social protection schemes – some of which sit outside the MoGLSD – need to link to the NSR, memoranda of understanding were also developed – as semi-legal instruments – and signed with most of the social protection scheme data providers to enforce data exchange and ensure they supported the NSR.
- **Legal framework:** Uganda passed the Data Protection and Privacy Act in 2019 to ensure legal regulation of the use and protection of personal data. This was followed by approval of the Data Protection and Privacy Regulations May 2021. Based on this framework, the NSR data protection and sharing protocols were developed to ensure that data warehoused on the NSR was protected and systematically shared to support evidenced-based decision making across the social protection sector.
- **COVID-19 Pandemic:** COVID-19 hit when the NSR was still at the implementation stage. Although there was a very strong interest from government for a database of vulnerable persons to enable quick response to the pandemic, the NSR had not been fully populated with data from social protection schemes. As such, it could not be utilised for both horizontal and vertical expansion of the social protection system.

Conclusion

A national, comprehensive information management system is a key building block for an effective social protection system, and with the establishment of the NSR, Uganda is on the way to building a strong digital social protection ecosystem. The country has a well-coordinated social protection policy space to support social protection interventions and has all the main ingredients to ensure full implementation of the NSR.



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