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## **About ID4D**

The World Bank Group's Identification for Development (ID4D) initiative uses global knowledge and expertise across sectors to help countries realize the transformational potential of digital identification systems to achieve the Sustainable Development Goals. It operates across the World Bank Group with global practices and units working on digital development, social protection, health, financial inclusion, governance, gender, and legal, among others.

The mission of ID4D is to enable all people to access services and exercise their rights by increasing the number of people who have secure, verifiable, and officially recognized identification. ID4D makes this happen through its three pillars of work:

- Thought leadership and analytics to generate evidence and fill knowledge gaps;
- Global platforms and convening to amplify good practices, collaborate, and raise awareness; and
- Country and regional engagement to provide financial and technical assistance for the implementation of robust, inclusive, and responsible digital identification systems that are integrated with civil registration.

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To find out more about ID4D, visit id4d.worldbank.org.

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The main authors of this Diagnostic report were Jaap van der Straaten and Victoria Esquivel-Korsiak who worked under the guidance of Luda Bujoreanu (ID4D).

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## **Abbreviations**

4G Fourth Generation Broadband Cellular Network Technology

AML/CTF Anti-Money Laundering/Counter-Terrorist Financing

AFIS Automated Fingerprint Identification System

AID Alien Identification Card

AIN Alien Identification Number

API Application Program Interface

BDAR Birth, Death, and Adoption Registration

BIMS Biometric Identity Management System

BoU Bank of Uganda

CRIMS Central Registration Information Management System

CRVS Civil Registration and Vital Statistics

DCIC Directorate of Citizenship and Immigration Control, Ministry of Internal Affairs

DRC Democratic Republic of Congo

DRDIP Development Response to Displacement Impact Project

EC Electoral Commission

EMIS Education Management Information System

e-KYC (electronic) Know Your Customer

FSDU Financial Sector Deepening Uganda

FY Fiscal year

GDP Gross Domestic Product

GSMA Global System for Mobile Communications

ICAO International Civil Aviation Organization

ICT Information and Communications Technology

ID4D Identification for Development

(I)NGO (International) Non-Government Organization

IPPS Integrated Personnel and Payroll System

ISO International Organization for Standardization

JLOS Justice, Law, and Order Sector

KYC Know Your Customer

LIS Land Information System

LTE Long-Term Evolution

MDA (Government) Ministry, Department, Agency

MDI Microfinance Deposit-Taking Institution

MFI Microfinance Institution

MIA Ministry of Internal Affairs

MIS Management Information System

MGLSD Ministry of Gender, Labour and Social Development

MoES Ministry of Education and Sports

MoPS Ministry of Public Service

MLHUD Ministry of Lands, Housing, and Urban Development

MM4P Mobile Money for the Poor

MNO Mobile Phone Network Operator

(M)SME (Micro) Small and Medium Enterprises

MVRS Mobile Vital Records System

NDA Non-disclosure Agreement

NID National ID

NIN National Identification Number

NIR National Identification Register

NIRA National Identification and Registration Authority

NITA-U National Information Technology Authority Uganda

NSIS National Security Information System

NSSF National Social Security Fund

NUSAF Northern Uganda Social Action Fund

OPM Office of the Prime Minister

OVC Orphans and Vulnerable Children

PSPS Public Service Pension Scheme

PSRP Public Service Reform Programme

RCIP Regional Communications Infrastructure Program

REC Refugee Eligibility Committee

RIMS Refugee Information Management System

ROPA Registration of Persons Act 2015

SACCO Savings and Credit Cooperative Organizations

SAGE Social Assistant Grants for Empowerment

SIM Subscriber Identity Module

SP Social Protection

SSR Single Social Registry

STA Settlement Transformative Agenda

TIN Tax Identification Number

TPI Third Party Interface

UBA Uganda Bankers' Association

UBOS Uganda Bureau of Statistics

UCC Uganda Communications Commission

UNHCR United Nations High Commissioner for Refugees

UNCDF United Nations Capital Development Fund

UNFPA United Nationals Population Fund

UNICEF United Nations Children's Fund

UIA Uganda Investment Authority

URA Uganda Revenue Authority

URL Uniform Resource Locator

USh Uganda Shilling

USSD Unstructured Supplementary Service Data

URBRA Uganda Retirement Benefits Regulatory Authority

URSB Uganda Registration Services Bureau

UWEP Uganda Women's Entrepreneurship Programme

YLP Youth Livelihood Programme

WFP World Food Programme

# Glossary

Attribute A named quality or characteristic inherent in or ascribed to someone or something

(NIST). In foundational identification systems, common inherent characteristics include name, age, sex, place of birth, address, etc., while common ascribed attributes include an identity number, the date and place of registration, etc.

Authentication The process of proving that a person is who they claim to be. Digital authentication

involves a person electronically presenting one or more factors to "assert" their identity—that is, to prove that they are the same person to whom the identity or credential was originally issued. These factors can include something a person is (e.g., their fingerprints), knows (e.g., a password or PIN), has (e.g., an ID card, token, or mobile SIM card), or does (e.g., their handwriting, keystrokes, or gestures).

Biometrics Physical or behavioral attributes of an individual, including fingerprints, irises, facial

images, gait, keystrokes, etc.

Civil register (CR) A system for the universal, continuous, and permanent recording of life events—

e.g., births, marriages, divorces, adoption, deaths, etc.—and associated data within a population. In addition to registering vital events, civil registries typically provide certificates or other credentials that serve as a proof of identity (e.g., a birth

certificate) or a particular attribute (e.g., marital status).

Credential A mechanism, process, device, or document that vouches for the identity of a

person through some method of trust and authentication. Common types of identity credentials include—but are not limited to—ID cards, certificates, numbers,

passwords, and PINs.

Deduplication A process of preventing or eliminating duplicate records within a database.

Although this can involve a variety of technologies, biometric deduplication is now

widely considered to be the most accurate method of enduring uniqueness.

Digital identity A set of electronically stored attributes that uniquely identify a person.

eID A credential, such as a smart card or mobile ID, that is used to identify and

authenticate an individual in a digital environment.

Foundational identification (ID)

system

System created to provide general identification of the population for a wide variety of public and private transactions, services, and derivative identity credentials. Common types of foundational ID systems include civil registries, national IDs, and population registers. Although the private sector may be involved in foundational systems as vendors, service providers, or partners, such systems

are typically managed and owned by government agencies.

Functional identification system

System created to manage identification for a particular service or transaction, such as voting, tax administration, social programs, etc. Functional identity credentials—such as voter IDs, health and insurance records, bank cards, etc.—may be commonly accepted for broader identification purposes outside of their original

purpose.

Identification system The databases, processes, technology, credentials, and legal frameworks associated

with the capture, management, and use of personal data for a general or specific

purpose.

Identity A set of attributes and characteristics that uniquely identify a person. Identity ecosystem The set of identification systems—including databases, credentials, laws, processes, protocols, etc.—and their interconnections within a country. Identity provider The entity—e.g., a government agency or private firm—with primary responsibility for issuing and managing identities and credentials throughout the identity lifecycle. Interoperability The ability of databases to talk with each other, exchanging information or receiving responses to queries. In some cases, interoperable databases may be directly connected, allowing for the real-time exchange or updating of information; in others, multiple databases may be indirectly interoperable via a trust framework that allows for communication and queries across disparate systems. Old files or collections of papers created under filing schemes as part of the Legacy records registration process. Legal identification System that provides government-recognized credentials (e.g., numbers, cards, certificates, etc.) that can be used as proof of identity for public and private sector system transactions. Legal identification need not be linked with nationality or citizenship and may encompass both foundational and functional systems. Mobile identity An extension of digital identity provided via mobile networks, data, and devices. National ID (NID) A credential issued by a foundational identity provider to serve as a primary means of identification for official purposes. NIDs have typically been cards that are issued to those 16 or 18 years and older. A common function of NIDs has been to document or establish proof of citizenship, and nationality is therefore a typical attribute in NID systems, regardless of whether credentials are issued only to citizens or to all residents. National ID number A number issued by a national ID provider to identify an individual. NINs may or (NIN) may not be unique ID numbers (UID). National population A register of every unique individual that has the right to reside in the country. register (NPR) including citizens and noncitizens, children, and adults. Seeding One-to-one mapping of identity records in an existing database with those in another database (e.g., via a unique ID number). Seeding can be done in bulk with no action required by individual users ("inorganic seeding") or on a case-by-case basis as users interact with one of the systems ("organic seeding"). Social register (SR) Database that contains socioeconomic data on the population—at the individual and/or household level—for the purpose of unifying the targeting and distribution of social programs, such as cash transfers and pensions. Third Party Interface A medium facilitating controlled access to and use of information in the National Identification Register (NIR) Unique ID number A number that uniquely identifies an individual for their lifetime and can be used to (UID) link an identity across databases and systems.

# **Executive Summary**

In today's digital age, robust, inclusive, and responsible civil registration and identification systems play important roles in providing citizens with a legal identity and generating vital and demographic statistics. Universal coverage of these systems improves the accessibility, integrity, effectiveness, and efficiency of public and private services. Experience in Estonia, India, Peru, South Africa, Thailand, and other countries has shown that an effective national identification system can accelerate progress in addressing key development and governance challenges, such as financial inclusion, universal health care coverage, and digitizing and integrating services in the public and private sectors.

The ID4D diagnostic was undertaken between November 2017 and June 2018 at a request from the Ministry of Internal Affairs of the Government of Uganda under the umbrella of the World Bank's Identification for Development (ID4D) initiative.

This work was done with excellent collaboration from NIRA's management and personnel. Its objective was to analyze the identification ecosystem in Uganda, highlight strengths and achievements, suggest areas of improvement, and build consensus around recommendations and next steps. This was done through in-person interviews with over 40 government and private stakeholders, a field visit, and a literature review. Draft findings and recommendations were presented at a consultation workshop in August 2018, attended by over 50 experts representing 30 government ministries, departments, and agencies (MDAs) and private sector organizations. Feedback from the workshop is reflected in the report.

## Unrivaled and Successful Launch of the National Identity Card

Launched in 2014 as the 'National Security Information System' (NSIS) project, the national identification system was developed under a multi-sectoral approach (including the EC, URSB, NITA-U, UBOS, DCIC, and Security Agencies, among others) that was partly driven by the decision to use the national identification card (NID) as the unique identifier for the 2016 election. This multi-sectoral effort led to 16.5 million citizens registered in a mass registration drive.

Since 2014, the rollout of the NID has brought about profound change in a country where, according to the national census of 2014, only 8 percent of the population had a long-form birth certificate<sup>1</sup> to prove their legal identity. In 2015, a new law, the Registration of Persons Act (ROPA), and a new organization, the National Identification and Registration Authority (NIRA) changed the approach to identification in Uganda. Prior to the rollout of the NID, about 75 percent of adults may have had a voter ID as a substitute official ID.<sup>2</sup> For those without voter ID, a short- or long-form birth certificate or a Local Council Chief letter were required as proof of identity. By the end of 2015, approximately 90 percent of Ugandans 16 years or older were enrolled in the National Identification Register (NIR). **No other country in Africa has issued their first or new national ID more quickly than Uganda.** 

So far, two registration campaigns have been conducted to populate the NIR. The 2014/15 campaign enrolled 16.5 million Ugandans in the NIR. The second campaign targeted about 10 million learners in school, ages five years and above, in primary, secondary, and post primary institutions. Those over 16 were issued IDs during this exercise. Outside these campaigns, NIRA has continued to register persons at its 117 district offices and, to date, approximately 26 million persons have been enrolled in the NIR.

<sup>1</sup> Uganda used to issue both long-form birth certificates and short-form birth certificates. The long form is the only version with probative value to prove legal identity. Population Census, 2014.

<sup>2</sup> The voter ID is an adequate breeder document for the national ID.

It is important to note that the approach of mass group enrollments is not necessarily the best way forward. NIRA needs to be supported to maintain a steady state, continuous operating model of registering people and keeping the NIR up to date. This implies that every birth, death, and NID application, wherever in the country, must be captured and lead to an immediate update of the NIR. There are already meaningful incentives for the NID to operate this way, for example, the requirement that the NID is shown for subscriber identity module (SIM) card registration and other services.

## Civil Registration: Positive Beginnings but a Downward Slide That Needs to Be Urgently Addressed

In 1904, Uganda became the first country in Africa to issue a native act for birth and death registration, preceding other countries by half a century. The coverage reached because of this law (65 percent of births and 56 percent of deaths registered) was so impressive that one scholar wrote that, "Buganda's system, even in decline, was still far superior to the methods of population recording instituted by the postwar French regime [...] and indeed to almost any other system in tropical Africa." At its height, the system had expanded across the whole of Uganda, with the exception of Karamoja.

This unique history should have given Uganda a head start when Independence came in 1962, but much was lost during the decades of political turbulence that ensued. From 1973 to 2004, the Registrar General of Births and Deaths, based in the Ministry of Justice, was responsible for civil registration. In 2004, the responsibility was handed over to the Uganda Registration Services Bureau (URSB). In 1994, Uganda reported rates of 35 percent birth registration and 25 percent death registration (likely estimates). By 2014 less than 8 percent of the population had a long-form birth certificate, and it was estimated that only about 1 percent of deaths were being registered. Currently, birth registration rates are about 32 percent<sup>4</sup> and death registration is approximately 1 percent. The declining pace of birth registration and the low death registration coverage represent a major risk for a reliable identification system in the country.

# State of Civil Registration Can Undermine the Investment in NID, NIR, and NIRA

Currently, coverage of the population five years and older is good because of NID issuance to those ages 16+, as well as the coverage of "learners" ages 5-15. But only 19.2 percent of the population has some form of birth record. Among those aged 5-15, approximately 4 million were not issued a National Identification Number (NIN) through the "Learners Project" because they were out of school and the project only reached learners in registered government and private schools. Without a rapid **increase in coverage of civil registration, these gaps will mean the NIR will quickly become unreliable and the veracity of the data will not be good enough for digital authentication of identity.** The continuous updating of the NIR is directly reliant on the registration of key events in the civil registration and vital statistics (CRVS) system, particularly births and deaths, and the prompt clearance of NID applications and backlogs.

The Uganda Bureau of Statistics (UBOS) estimated there were 17,785,400 persons 16 years and older in 2015. By 2020, just five years later, UBOS data suggest that close to 400,000 persons among these NID-holders will have died—and these deaths will likely not be recorded in the civil registration system if it continues as is. During the same five years, 4,865,000 young persons will have become NID-eligible (reaching the age of 16). About one quarter of these will not have been covered by the "Learners Project" and thus will not have a NIN to facilitate relatively easy issuance of the NID. Annual issuance of about 1 million NIDs to newly eligible NID applicants across the country is a challenge in itself, and requires a very different operation than the mass enrollments used in the past. It is, to an extent, comparable to what the Electoral Commission (EC) has to do each election cycle to update the voter roll, except NIRA must do this continuously while the EC does this every five years.

<sup>3</sup> Doyle, Shane 2012, pp. 281-282. Doyle refers to East African Statistical Department. 1950 and East African Statistical Department. 1961.

<sup>4</sup> DHS 2016.

<sup>5</sup> DHS 2016.

There is a belief that increasing the number of registration points is the solution to coverage gaps in civil registration, yet experience from other countries (such as Cameroon and Tanzania) prove the proximity principle is incorrect. When the cost to society of poor civil registration is large, but local governments do not feel the burden of that cost, then the civil registration function needs to be assumed by the central government. That is the case in Uganda.

NIRA needs to develop a sustainable operating model which effectively offers birth and death registration services in all districts (and at sub-county levels) without necessarily requiring NIRA's permanent physical presence in all locations. The advantages of having reliable demographic and vital statistics data at local government level, and hence having the benefit of government services optimally allocated to local populations proportional to their size, greatly outweighs the advantages of local government performing the civil registration task poorly and undermining the sustainability of the national ID system. However, for such an operating model, NIRA needs the human, technical, and financial resources, and the work partnerships that give it access to necessary external know-how and resources.

## Potential to Leverage the NIR and NID

The impressive rollout of the NID has put Uganda in a different league of countries. According to the latest available enrollment data, more than 26 million Ugandans have been enrolled in the NIR, representing approximately 66 percent of the population.<sup>6</sup> The current national ID system is technologically advanced, which has created the potential for leveraging the national ID system for e-government and authentication by public and private sectors (e.g., mobile phone companies, banks, and insurance companies), further expanding financial inclusion, strengthening social protection delivery, supporting immigration control and refugee management, and helping the Electoral Commission create an up-to-date voter register for the 2021 general elections. In turn, NIRA would benefit from linkages to other registries to strengthen the accuracy and integrity of the NIR, such as on refugees (maintained by the Office of the Prime Minister), and on aliens (maintained by the Directorate of Citizenship and Migration).

## Cost Savings from a Reliable NIR

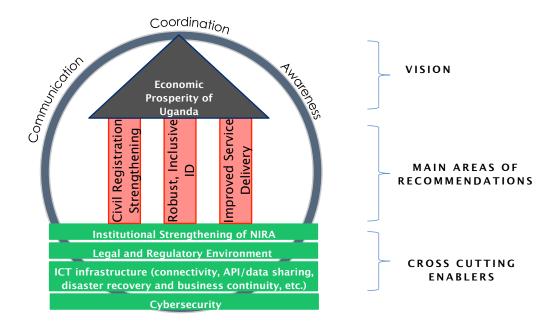
A reliable NIR would generate significant savings in both public and private sectors. Already in Uganda a government payroll verification exercise conducted in 2016 matched Ministry of Public Service records with NIR entries to identify and remove "ghost workers," leading to an annual savings in the government wage bill of USh 24.6 billion (US\$6.9million). In particular, elections will benefit over time from an accurate and reliable NIR. Uganda has already been able to keep election costs low by comparison to other African countries. Prior to 2000, the average African election cost US\$4.10 per elector; this has tripled to US\$11.40 per elector. In contrast, Uganda's EC was able to keep costs at US\$8.60 per elector for the 2015–16 elections, saving the country US\$43 million (USh 160 billion). While everything possible was done to prepare the NID issuance for the 2016 elections, the EC still had to undertake special measures (e.g., photo lists of registered voters for each polling station) to achieve a smoothly run election. In principle, even more election cost savings should be possible in the future if the NIR is accurate and reliable, and if NIDs are issued in a timely fashion to eligible people and the deceased are promptly deleted from the NIR.

#### Recommendations at a Glance

The recommendations provided in this diagnostic report are based on lessons learned from best practices in other countries, understating of Uganda's unique environment, and feedback resulting from consultations with key stakeholders. These recommendations are made in support of the objectives set out in NIRA's 3-year Strategic Plan 2017/18-2019/20, and to position NIRA to address coverage gaps and growing demand for authentication and verification services from other public and private sector institutions. A visual representation of how recommendations are structured is shown below, followed by the summary. A full set of recommendations is laid out at the end of this report.

<sup>6</sup> The UBOS midyear population projection for 2018 was approximately 39 million.

## Overview of recommendations



Based on Best Practices from OECD, InfoDev, UNESCO, ITU, NIAT

#### **Summary of Key Recommendations**

	Recommendations	Responsibility
	Overall	
1.	NIRA lacks the proper budget and staffing to fully meet its mandate.  Tremendous progress has been made to date, but a continued lack of adequate budget and staffing prevents NIRA from providing robust, continuous service at district levels and making necessary investments to address coverage gaps and deficiencies in the civil registration system. Lack of staff also hinders NIRA's ability to meet growing demand from government and private stakeholders for access to NIRA's Third Party Interface (TPI) for authentication and verification of identities. <sup>a</sup>	Ministry of Internal Affairs, Ministry of Finance, Parliament
2.	Revenue streams need to be revisited to encourage birth and death certification.  Even small fees can discourage birth and death certification. Authentication and verification fees could replace lost revenue from birth and death certification.	NIRA, Ministry of Internal Affairs, Ministry of Finance, Parliament
3.	Identification is an issue of national significance, with multiple stakeholders involved and affected.  MDAs need to be held accountable in their Key Performance Parameters for their role in the identification ecosystem. Other stakeholders, such as development partners and the private sector, also need to be accountable for supporting the identification ecosystem for financial inclusion, improved service delivery, and cost savings.	NIRA, National Planning Authority, Development Partners, Private Sector Partners

	Recommendations	Responsibility
4.	Expedite the adoption of the Data Protection and Privacy Bill to safeguard personal information sharing. Introduce amendments, as needed, to align with the EU's General Data Protection Regulation.	Ministry of ICT, Parliament
	Civil registration strengthening as the foundation of identification	
5.	Civil registration and the national identification system should be recognized as a national priority and reflected in the National Development Plan III.  The NIN should be recognized as the unique identifier for every Ugandan in the NDP III. The preparation of the NDP III would benefit from including NIRA in the consultations process.	National Planning Authority
6.	Integration of the national ID system and civil registration system is critical for a dynamic, sustainable, and accurate NIR.  The viability and accuracy of NIRA's data depends on civil registration and NID operations mutually reinforcing one another. Neither civil registration nor the NID can be viable and reliable unless NIRA has the necessary budget and posture across the country and continues to work with partners.	NIRA, Ministry of Health, Local government, URSB
7.	NIRA needs to build partnerships with key stakeholders to achieve continuous universal registration and coverage.  NIRA cannot execute the role of Birth, Death, and Adoption Registration (BDAR) on their own without close partnerships with local government, the Ministry of Health, the Uganda Police Force, and other community-based institutions. A mapping exercise is suggested to identify stakeholders and opportunities for collaboration, including by defining roles and responsibilities for each in achieving universal BDAR.	NIRA, Local government, Ministry of Health, Uganda police force, Community-based organizations
8.	NIRA must work toward a functional district presence with a fully populated staff establishment, and this requires Parliamentary support.  NIRA currently has one staff in each of 117 districts, versus a planned five staff per district. Reduced budget allocations prevent NIRA from populating its structure and bringing services closer to the people. Awareness needs to be raised in the policy arm of government that continued registration is necessary to keep BDAR updated and NIR reliable.	NIRA, Ministry of Internal of Affairs, Ministry of Public Service, Ministry of Finance, Parliament
9.	Death registration coverage is extremely low (approximately 1 percent), which undermines the viability of the NIR. Addressing this deficiency should be a top priority.  NIRA needs to further decentralize and scale up death registration to the districts and work to increase death registration through benchmarking best practices. There is also an important role that Parliament can and should play in reinforcing the importance of death registration, including legislation on enforcement and implementing a series of incentives for people to report deaths.	NIRA, Ministry of Internal Affairs, Local government, Ministry of Health, Parliament
10.	Marriage registration is a critical part of civil registration.  The ROPA 2015 provided for the registration of births and deaths and their inclusion in the NIR. However, it excluded the registration of marriages and divorces, which remained under the jurisdiction of another entity (URSB). Registration of marriages and divorces is an essential part of the overall CRVS system. NIRA and URSB should work toward ensuring seamless linkages in their systems to enable completeness of the CRVS system and accuracy of the NIR.	NIRA, URSB

(continued)

	Recommendations	Responsibility
11.	Legacy records are permanent, legal records which will need to be collected, digitized, and archived.	NIRA, Local government, Ministry of Finance
12.	NIRA and partners should carry out awareness campaigns and sensitization for citizens to understand the importance of registering vital events.	NIRA, Ministry of Health, Local government, Ministry of ICT and National Guidance
	Ensure a robust, inclusive NID system	
13.	Further focus is required on expanding NIRA's presence with the aim to ensure successful continuous registration.  The current model of continuous registration in 117 districts, combined with the campaign-based approaches of the past, are not sufficient to meet annual demand. NIRA's staff presence must be expanded to address the annual expected caseload for registering vital events and issuing NINs and NIDs. Campaigns should be planned at a national level and NIRA should be closely consulted.	NIRA, Ministry of Finance
14.	A focus is needed on closing coverage gaps, especially among vulnerable populations, and clearing backlogs.  Closing coverage gaps needs to be prioritized, including children who missed in the learner's registration drive and clearing of registration backlog, like the pending citizenship verification cases. Special efforts need to be made to extend registration services to vulnerable populations, including people in hard to reach places, special needs persons, and the elderly.	NIRA, Ministry of Finance
15.	Linkages need to be made between DCIC and NIRA systems to facilitate the production of nationals' passports by DCIC, which requires information from the NIR, and the registration of aliens by NIRA, which requires information collected by DCIC. This may require concentrated efforts by both DCIC and NIRA to develop and upgrade the Third Party Interface.	NIRA, DCIC
16.	NIRA needs adequate ICT infrastructure and solutions, including a full disaster recovery and business continuity plan to facilitate business resumption in the event of a disaster.  This requires the right budget, infrastructure, and staffing, as outlined in NIRA's draft ICT strategic plan.	NIRA, Ministry of Internal Affairs, Ministry of ICT, Ministry of Finance
17.	NIRA will need to undertake a detailed review of their business process workflows to improve efficiency and turnaround times.  NIRA inherited a number of business processes on civil registration and registration of persons which require streamlining to improve service delivery, reporting, and documentation.	NIRA

	Recommendations	Responsibility
registration systems used	vernment to explore linkages between the NIR and refugee by the Office of the Prime Minister (currently the Biometric stem (BIMS) and ProGres v4).	OPM, NIRA
tools (currently BIMS and example, facilitate dedupl ensure that for identificat	realized by linking the NIR with refugee registration ProGres v4) through NIRA's TPI. Such linkages could, for lication with the NIR, update birth registration records, and tion purposes under the current framework, refugees are registration systems and Ugandan citizens are registered in	
	for cybersecurity are critical. Cybersecurity capacity building ement staff, as well as other measures, are necessary to RA's data.	NIRA, Ministry of ICT
	llaboration with public and private sector stakeholders, as eners (e.g., Plan, UNICEF, and the World Bank). New partners plored.	NIRA
Improving service deliver	ry	
authentication and verifice To do this, NIRA requires	creasing linkages to the TPI to meet demand for cation of identities by other stakeholders.  adequate staffing and budgets to address the increased m, temporary staffing can be explored to fill gaps.	NIRA
22. Functional users wishing requirements and be prepulsioness processes.  Most private sector stakel public sector stakeholders NIRA's TPI. All users need	to link to NIRA's TPI need to meet the technical pared to provide for change management of their own holder systems meet the technical requirements, while is need to upgrade their systems before they can leverage it to be prepared to provide for change management of their might result from linking to the NIR.	Functional users (MDAs, private sector stakeholders), NITA-U

- a South Africa and Uganda have comparable workloads, yet South Africa has 7,000 staff compared to NIRA's planned 600 (as laid out in the Strategic Plan 2017/18-2019/20).
- b The annual expected caseload is a sum of the estimated number of new births, deaths, and citizens turning 16. Those who turn 16 become eligible for the NID card and require NIRA to collect further biographic and biometric information in order to issue the NID. The cohort of people turning 16 each year is currently estimated at about 1 million per year. UBOS population projections are used to estimate this annual expected caseload.

## 1. Introduction

Examples across the world demonstrate that robust, inclusive, and responsible national ID systems are powerful drivers of inclusive and sustainable development. For individuals, a national ID enables them to exercise their rights, including to vote and access services such as social assistance, health care, education, and finance. For governments and businesses, national ID systems provide a platform to uniquely identify and authenticate the people they serve, which increases their effectiveness, efficiency, and integrity. Using a national ID system to deliver social protection, for example, can help with better targeting of cash transfer or subsidy programs designed to bring people out of poverty. National ID systems can also facilitate electronic "Know Your Customer" (KYC) requirements in the banking sector, furthering financial inclusion.

#### Motivation

This ID4D Diagnostic was undertaken in Uganda to analyze the identification ecosystem in Uganda, highlight strengths and achievements, and suggest areas of improvement by providing specific recommendations for consideration by the Government. This work was done in close collaboration with NIRA with the aim to help the decision-making process on the optimal use of resources for the identification and authentication of citizens and residents in a way that improves government administration and the service delivery agenda, and fosters inclusive, sustainable development. The ID4D Diagnostic was conducted under the umbrella of the World Bank's ID4D initiative, following the request from the Ministry of Internal Affairs.

The Diagnostic was carried out between November 2017 and June 2018. The research team held over 40 meetings and interviews with 130 people, representing 24 stakeholder institutions. A key stakeholders' consultation workshop was held in August 2018 and was attended by over 50 representatives of 30 public and private stakeholder institutions. This report reflects the feedback received during the consultation workshop.

## **Country Context**

Currently, Uganda's population is estimated at 39 million and grows by approximately 3 percent per year.<sup>7</sup> It has a GDP per capita of US\$615.31 and ranks 163 (out of 188) on the Human Development Index 2016. Uganda's economy has grown at a slower pace in recent years, reducing its impact on poverty. Average annual growth was 4.5 percent in the five years prior to 2015/16, compared to the 7 percent growth rate achieved during the 1990s and early 2000s. Uganda's rise on the e-government ladder has been remarkable. Between 2001 and 2016, Uganda moved from last place to 128th place on the United Nations' global e-government benchmarking survey, leaving 64 other countries behind. Uganda scores even better, currently, on the e-Participation Index which offers insight into how countries are using online tools to promote interaction between citizen and government, as well as among citizens.

Against this impressive performance, it is only fitting that a still lacking cornerstone of e-government was put in place: trusted identification. In 2015 the Government of Uganda took important steps toward reforming civil registration and identification. A new law was enacted and a new organization, the National Identification and Registration Authority (NIRA), was established. In 2015, the Registration of Persons Act (ROPA) brought civil registration and national ID under one organization. A new national ID was successfully issued to over 90 percent of Ugandans 16 years and older. In doing so, significant progress was made to provide for a single trusted source for personal identification, which is essential for a digital society. The government now has a unique opportunity to capitalize on this initial success and undertake measures to keep the NIR up to date for the benefit of improving the service delivery agenda, as well as serving as a foundation for further economic growth.

<sup>7</sup> Population projections from the Uganda Bureau of Statistics (UBOS).

# 2. Identification Ecosystem: Systems and Coverage

## 2.1. ID Ecosystem Overview

## Foundational systems overview

The identity ecosystem in Uganda is comprised of several major foundational and functional systems, listed in Table 1 below. Currently, the main government authorities in Uganda responsible for citizen and resident registration and identification—foundational systems—are:

- 1. The Office of the Prime Minister, Department of Refugees (OPM)
- 2. The Ministry of Internal Affairs' Directorate of Citizenship and Immigration Control (DCIC)
- 3. The National Identification and Registration Authority (NIRA)
- 4. Uganda Registration Services Bureau (URSB)

Table 1. Main Foundational Identity Providers

Provider	System	Database/register	Credential
Department of Refugees, Office of the Prime Minister (OPM)	Currently the Biometric Identity Management System (BIMS), and ProGres v4, previously the Refugee Information Management System (RIMS)	By October 2018, following the completion of a verification undertaken jointly by the Government of Uganda and UNHCR, BIMS and ProGres v4 included approximately 1.1 million records of refugees and asylum seekers	Registration (refugee identity) number: Unique 12-digit number issued to all persons who had been registered in RIMS. The first three digits indicate the location of registration, the remaining nine digits are sequential.  Refugee identity card: Plastic card with basic hologram security feature, displaying name, gender, registration number, date of birth, nationality, and barcode (with registration number encoded).
Directorate of Citizenship and Immigration Control, Ministry of Internal Affairs	N/A	Paper-based files for approx. 550,000 nonnationals 650,000 passport holders	DCIC issues passports to citizens and visas, dependent passes, and work permits for foreigners.  The process is under way for NIRA to register aliens using information from DCIC and to issue an Alien Identification card (AID).

Provider	System	Database/register	Credential
National Identification and Registration Authority	Civil register for births and deaths	(1) Paper-based system held across Uganda (number of records > 10 million), and (2) digital systems MVRS and CRIMS, approx. 3-5 million entries  Birth registration (0-4): 32.2 percent (DHS 2016)  Death registration: 24.2 percent (DHS 2016)	Birth and death certificates  Civil registry—has birth, death, and adoption registration (BDAR)  Marriages are still under URSB
	National ID	Database with approx. 27 million records (nationals and nonnationals)  NID cards printed for citizens aged 16+: 17.4 million as at end of August 2018  Citizens with NINs: 26 million (6.5 million ages 5-16)	NID/AIN number: Issued to all citizens and legal foreign residents (at birth registration or immigration).  NID/AID card: Issued to citizens and legal foreign residents aged 16+. Polycarbonate card displaying a photo, signature, and basic biographic data (on the front), and a fingerprint image, ICAO-compliant machinereadable zone, and 2D barcode encoded with basic biographic data (on back).  Discussions ongoing around moving to a chip card (not a smart card).
Uganda Registration Services Bureau	Register of Marriages held across Uganda (no central capture)	URSB digital, all else paper based	Marriage certificate issuance

The **Department of Refugees** under the Office of the Prime Minister (OPM) is responsible, in accordance with the 2006 *Refugee Act*, for processing and managing refugees and asylum seekers in Uganda, including their registration and the provision of identification. In 2015, the department introduced RIMS, which includes a module for registration and identity management. Amid reports of discrepancies in the number of refugees being officially reported, the Government of Uganda in March 2018 launched a biometric verification of all refugees in the country, which is being carried out in collaboration with UNHCR and the World Food Program (WFP) using UNHCR's Biometric Identity Management System (BIMS) and ProGres v4 systems. RIMS has been transitioned to BIMS and Progres v4. Meanwhile, NIRA is responsible for registering the births and deaths that occur among refugees in Uganda. There is currently no interoperability between the Department of Refugees and NIRA.

The Ministry of Internal Affairs' Directorate of Citizenship and Immigration Control plays a foundational role in Uganda's identification system, as it enforces the lawful presence of nonnationals within the country's territory, except refugees and asylum seekers. As of the 2014 census, there were approximately 504,200 people identified as nonnationals. DCIC also issues passports for Ugandan nationals, though only 1.7 percent of the population (approx. 650,000 in 2018) have a passport. The Directorate's system is still primarily manual and paper based, though they have started employing the Gemalto's e-visa system for border control and visa issuance.

The **National Identification and Registration Authority (NIRA)** was established by ROPA 2015 and became operational on 26 March 2015. ROPA officially transferred to NIRA both the responsibility for issuance of national IDs (originally with DCIC) and for BDAR (originally with URSB). According to the latest available enrollment data, more than 27 million Ugandans who are over 16 years of age have been enrolled in the national ID scheme, which represents about 67.5 percent of the adult population.

The **Uganda Registration Services Bureau** was established in 2004 and took over the tasks of birth and death registration, and marriage registration (and the officiating of marriage), as well as the registration of adoption orders from the Ministry of Justice and Constitutional Affairs. Since the subsequent handover to NIRA on 1 January 2016, URSB has retained only marriage registration. In 2011, URSB registered just shy of 800 civil marriages, a number that climbed to almost 1,500 in FY2015/16. Survey data indicate that URSB managed to improve birth registration of 0–5-year-olds substantially from 4 percent in 2000–01 to 21 percent in 2006 and 30 percent in 2011. A similar level of coverage for children and youth younger than 18 years was recorded.

## Functional systems overview

Leveraging the NIR to uniquely identify individuals and facilitate the reliable authentication of identity can generate substantial savings in both the public and private sectors, especially from reduced leakage and in administrative costs. NIRA's database is sufficiently developed to enable digital verification of customer identity to support identity verification requirements while also enabling digital identity verification (eKYC) as part of customer due diligence. If implemented properly, the ability to effectively authenticate customers saves compliance costs, increases the integrity of customer data, and supports the Anti-Money Laundering/Counter-Terrorist Financing (AML/CFT) risk mitigation of banks.

The main functional ID systems in Uganda are:

- The Electoral Commission of Uganda (EC)
- 2. Ministries, Departments, and Agencies (MDAs) engaged in social protection, subsidy programs, education, health, land, agriculture, justice, transportation, taxes, and business registration, etc.
- 3. Private sector partners including banks, mobile network operators, insurance companies, and credit reference bureaus

Functional systems, listed in Table 2, can leverage the NIR to reliably authenticate their target populations. Some key examples include:

- **Financial inclusion:** About 9 million Ugandans currently have a bank account, and banks have a legal obligation to perform eKYC due diligence. Making NIRA's TPI available to banks to support digital verification of customers will unlock the benefits of the NIRA's data for the financial sector.
- E-government services delivery: The Government of Uganda currently offers over 100 online services, with citizen-facing services available through www.ecitizen.go.ug. These various services, however, hardly "talk" to each other and citizens must have different login credentials for each system. The delivery of government services electronically has created a demand for new identity and access management, which could be met through the NIRA to ensure more user-friendly access to e-government services in key sectors.
- Service delivery in key sectors: At the Ministry of Agriculture, Animal Industry and Fisheries, an e-voucher program has been launched which will reach 450,000 farm families in 42 districts. The project aims to leverage mobile money to provide targeted subsidies to farmers for purchasing

<sup>8</sup> To date, URSB retains responsibility for the registration of marriages.

- agro-inputs. The project is now putting in place structures to effectively link to NIRA's database and verify the identity of farmers.
- **Elections:** Online and offline (biometrics on card) authentication of voter identity and validation against a deduplicated NIR with universal coverage of the adult population would make an important contribution to the 2021 election integrity and cost reduction.
- Authentication of social protection beneficiaries: Beneficiary identity verification and authentication is essential to the integrity of social protection programs. There are several social protection programs benefiting or that could benefit from verification of identity, including: Public Service Pension Scheme (PSPS), the National Social Security Fund (NSSF), Workers' Compensation, Social Assistance Grants for Empowerment (SAGE), Public Works Programs, and the Ministry of Agriculture's e-voucher program. The Ministry of Gender, Labour and Social Development (MGLSD) is also in the process of launching a single social registry for all social protection programs which will need linkage to the NIR.

Table 2. Important Functional ID Systems and Institutional Clients in the Identity Ecosystem of Uganda

Functional system	Institutional client	Number of identities (estimated)	Linkages and importance
National Voter's Register	Electoral Commission	18 million	Validation of the electoral register
Single Social Register	Ministry of Gender, Labour and Social Development	2.7 million <sup>a</sup>	Targeted delivery of social protection programs. Registration of overseas workers
E-voucher program	The Ministry of Agriculture, Animal Industry and Fisheries	450,000 households	Verification of e-voucher beneficiaries
Electronic Health Management Information System	Ministry of Health	Population, 39 million <sup>b</sup>	Health Management Information System, Personal Health Records
Education Management Information System (EMIS)	Ministry of Education and Sports	12.5 million	Educational planning, capitation grants
Integrated Personnel and Payroll Service (IPPS)	Ministry of Public Service	350,000	Payroll validation for government employees
Driving permits	Ministry of Works and Transportation	800,000	Driving permits, vehicle licenses, vehicle inspection, traffic rule violations
Land registry	Ministry of Lands, Housing, and Urban Development	800,000	Land registration
eKYC	Bank of Uganda, banks	8.8 million	Anti-money laundering, TF, know-your-customer
Tax Register	Uganda Revenue Authority	2.3 million	Tax revenue planning, collection, and administration

Functional system	Institutional client	Number of identities (estimated)	Linkages and importance
Business registration	Uganda Registration Services Bureau	100,000	Business registration and validation of directors, beneficiary ownership; registration of marriages
SIM registration	Mobile Network Operators	29.5 million	SIM card registration
Financial cards	Credit Reference Bureaus	1.5 million	Lending, credit records
N/A	Insurance companies	350,000	Identity verification policy holders and beneficiaries

a Excluding active and retired civil servants which are shown under the Ministry of Public Service.

## 2.2. Foundational Systems

## 2.2.1. Civil registration

In 1904, Uganda became the first country in Africa to issue a *native* act for birth and death registration, preceding other countries by half a century. The coverage reached because of this law (65 percent of births and 56 percent of deaths registered) was so impressive that one scholar has written that, "Buganda's system, even in decline, was still far superior to the methods of population recording instituted by the postwar French regime [...] and indeed to almost any other system in tropical Africa." At its height, the system had expanded across the whole of Uganda, with the exception of Karamoja.

This unique history should have given Uganda a head start when Independence came in 1962, but much was lost during the decades of political turbulence that ensued. From 1973 to 2004, the Registrar General of Births and Deaths, based in the Ministry of Justice, was responsible for civil registration. In 1994, Uganda reported to the UN the rates of 35 percent birth registration and 25 percent death registration (likely estimates). In 2004, the responsibility was handed over to URSB which made good progress in birth registration, but still left less than 8 percent of the population with a long-form birth certificate<sup>10</sup> by 2014. Local government had also only managed to provide short-form birth certificates to about 20 percent of the population, and it is estimated that only about 1 percent of deaths were being registered.

In 2016, the responsibility for birth and death registration (as well as for adoption) moved to NIRA. NIRA's work on civil registration is guided by ROPA 2015.

## Coverage and Inclusion

In this section most of the attention is given to birth registration. It is the most important vital event included in civil registration because it establishes a legal identity. In addition, it is the vital event for which the most and best data are available. At the end of this section some attention will also be given to death and marriage registration, both of which have legal implications and are important for legal identity.

b Currently in all sorts of paper-based medical records, some digital databases.

<sup>9</sup> Doyle, Shane. 2012, pp. 281–282. Doyle refers to East African Statistical Department, 1950, and East African Statistical Department, 1961.

<sup>10</sup> The long-form birth certificate is the only certificate with legal probative value.

Capturing deaths is important for the veracity of the NIR, the voter registry, and functional registers that depend on the data in the foundational identification systems.

The oldest data for birth and death registration coverage in Uganda is from 1948. Birth registration coverage was 65 percent and death registration 56 percent in the Buganda region, and may have been somewhat lower in other regions. In 1994, coverage reportedly stood at 35 percent for the registration of births and 25 percent for deaths. Most likely the 1994 data were based on a rough estimate. Data in Figures 1 and 2 (for births and deaths respectively) show that after the surprisingly high level of coverage during the colonial period, the birth registration rate dropped to 1–4 percent, with the exception of the 2013–2015 period during which the UNICEF-supported project was implemented to notify births by mobile phone through the "Mobile Vital Registration System" (MVRS) and "Civil Registration Information Management System" (CRIMS).

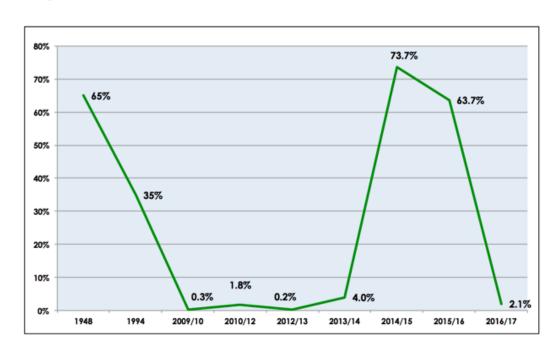


Figure 1. Birth Registration Rate (administrative value), 1948–2016/17

In 2014, census data showed 30 percent of the population across all age groups had been registered and had a certificate to prove it. Only one in twelve had a long-form birth certificate and therefore a legal identity, while one in five had a short-form birth certificate (which had no probative value). About 50 percent of 0-17-year-olds were registered, of which three in 10 had a long- or short-form birth certificate and two in 10 had been registered but had neither type of birth certificate.

Disparities in birth registration rates across regions show that Kampala had the highest rate of birth registration while the Southwest and Karamoja had among the lowest. Across wealth quintiles, the richest 20 percent of the population was about twice as likely to have a birth certificate (likely long form) than the remaining 80 percent. In 2011, 44 percent of children in the richest 20 percent of households had been registered (57 percent of which had a birth certificate) while 27 percent of children from the poorest quintile had been registered (and just over half had a birth certificate).

There are various reasons why birth registration coverage fell to such low levels. First, the post-independence period brought political instability that led to a virtual breakdown of the work of the administration for several decades. Second, changes in local government that led to elected local councils in 1997 had an impact on

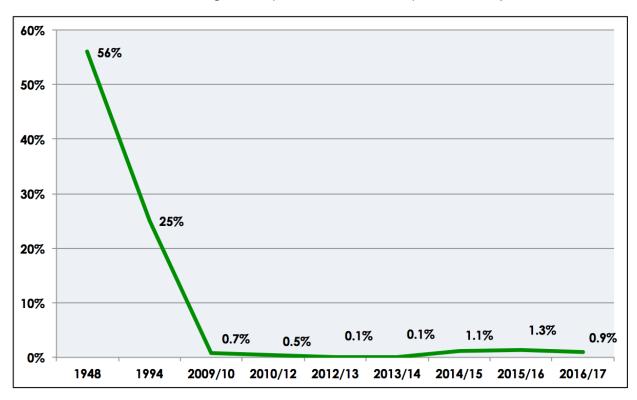
<sup>11</sup> URSB 2014.

the influence of traditional leaders. Finally, the legal framework had not been conducive. While birth and death registration continued to be compulsory, the incentives and penalties used for registration largely fell away. The new law of 1970 (which came into force in 1973 and replaced the Birth and Death Registration Act of 1964) also created ambiguity. It kept civil registration compulsory, while leaving certification of births optional (and incurring a fee prescribed by regulations). It also introduced the two types of birth certificates. Long-form birth certificates were only offered in Kampala at the Registrar General's Office at the Ministry of Justice and Constitutional Affairs, and from 2004 at the URSB office.

NIRA took over registration of births, deaths, and registration orders from URSB. Between January 2016 and August 2018 NIRA registered approximately 115,000 births, of which approximately 85,000 (75%) have been certified (birth certificates issued). According to the Demographic Health Survey of 2016, birth registration presently stands at 32.2 percent, with 19.2 percent having some form of birth certificate.

**Death registration** is compulsory by Ugandan law, but recorded death registration is extremely low. This is mostly caused by a lack of incentives for death registration. Reportedly in the past, death registration completeness was a result of incentives and sanctions at local levels when traditional governance was effective. Figure 2 shows death registration coverage. As with birth registration, centrally captured and reported death registration statistics probably understate the actual number of deaths registered at local levels. Low death registration coverage may be said to be a cultural problem, or, as the CRVS assessment states, is "due to lack of awareness about the importance of death registration, lack of incentives and lack of enforcement of the law. The few, who register deaths, only do so in circumstances where the deceased left some property behind which the next of kin would wish to benefit from." No data are available on regional or social disparities in death registration, but the likelihood is that death registration rates would be higher for the more affluent Ugandans and for deaths occurring in urban areas. According to the Demographic Health Survey of 2016, of deaths reported to have occurred in the previous year, only 24.2 percent were registered with the civil authority.





<sup>12</sup> URSB 2014, p. 25.

Marriage registration is another critical component of CRVS. The responsibility for marriage registration has remained with URSB. Marriage registration is regulated by Article 18 of the Constitution of 1995 and a number of laws: The Marriage Act (1904) Cap 251; Customary Marriage (Registration) Act 1973 Cap 248; The Marriage and Divorce of Mohammedans Act (1906) Cap 252; and The Hindu Marriage and Divorce Act 1961 (250). These provide for compulsory registration, including for church, Hindu, and Muslim marriages. Marriage registration is subject to a substantial fee (in 2014 USh 260,000 or US\$70), and there is great variance in documents used to register marriages. Registration of marriages is the mandate of the (district) Chief Administrative Officer for civil marriages, heads of different places of worship for religious marriages, and sub-county chiefs/town clerks for customary marriages. As is the case for birth and death registration, this implies that numerous actors are involved, thus the returns for marriages to URSB are far from complete and registers kept across the country are in poor shape. In FY2016/17, URSB reportedly registered 1,175 civil marriages and received returns for another 10,578, while the registration of customary marriages was limited to a few dozen.

## Administrative Organization and Management

URSB managed all civil registration from 2004 to 2016 when the responsibility for BDAR was transferred to NIRA. Previous to NIRA taking over, by law (Law 28 of 1970, which became effective from 1973, and Statutory Instrument No. 30 of 1977) the country's Attorney General could appoint the Registrar General (then at the Ministry of Justice and Constitutional Affairs, and from 2004 through 2015 at URSB), establish registration areas (reported in the Government Gazette), and appoint other civil registrars. This has been done at sub-county levels (registrar: Sub-County Chief), the City of Kampala, every municipality and township (registrars: the town clerk or equivalent), and every hospital (registrar: Hospital Administrator). The Registrar General had the responsibility for the provision of registration supplies for all registration areas and the issuance of long-form certificates for birth, while at registrar level registration took place and short-form birth certificates could be issued. Registrars were obliged to send monthly returns showing their registration activity to the Registrar General. Registrars were required to keep the original registers, i.e., the civil register for the country consisted (and still does under the new law) of the collection of these manually made and paper-based registers across the country. Under then prevailing law the legal time frame for registration was three months, and another three months was given for late registration, upon which the registrar would be required to exercise due diligence for delayed registration: "After expiration of six months from the date of birth of a child, particulars of the child shall not be registered unless the registrar is satisfied with such particulars and is directed by the Registrar General and for a prescribed late registration fee." A statutory instrument (No. 54 of 2005) prescribed birth certification fees of USh 1,000 for a short-form birth certificate and USh 5,000 for a long-form birth certificate.<sup>13</sup>

The law, previous and present, provides for free registration of births or deaths, and issuance of the birth or death registration certificate for a fee. Previous and present practice is that local government charges the public for issuing short-form birth certificates, for which there is no basis in the law. This longstanding practice leaves nine out of ten without evidence of identity with legal, probative value. URSB, over a 12-year period, was not able to change that practice. It did not receive monthly returns, and hence it had no management information to act on, and neither had it the budget to do so. Interoperability between URSB and local governments was largely absent. There was no Memorandum of Understanding setting out the obligations for both parties. Registers of birth and death were supposed to be kept in 1,403 sub-counties, in towns and subdivisions, and in 345 hospitals, and these registration locations were supposed to be stocked with the supplies they needed, given the training, support and oversight required, and the means to make monthly returns. URSB annual reports indicate that budgets were not adequate for the acquisition and distribution of sufficient resources for all registrars, and the compliance with reporting requirements (monthly returns) was inadequate.

<sup>13</sup> The fees for nonnationals were US\$20 and US\$40 respectively.

Total cost of civil registration services under URSB was estimated at US\$5 million per annum, of which half was incurred centrally and the other half was incurred across the country by local governments (Ministry of Local Government, Ministry of Public Service for salaries) and hospitals (Ministry of Heath).<sup>14</sup>

One of the first initiatives to bolster birth registration among children 0-8 years old, the "Revitalization of Birth and Death Registration" project, started in 2000 and received support from UNICEF; UNFPA; the Justice, Law, and Order Sector (JLOS); and Plan International. The community-based project focused on the role of local government below sub-county levels. This resulted in the birth registration rate increase from 4 percent in 2000/01 to 21 percent in 2006, which could be indicative of the project's impact in its first years. An evaluation of the project was not done, but the civil registration assessment conducted in 2014 was rather critical of the project and the status of civil registration more broadly. Some of the findings were:

- URSB did not carry out systematic field monitoring of activities. The majority of the Sub-county Chiefs, Town Clerks, and CAOs<sup>16</sup> had for a long time not been supervised by anyone.
- Many vital events went unregistered; there were no mechanisms to enforce compliance.
- The allegiance of the local registrars (Sub-county Chiefs, Town Clerks, and CAO) was primarily to their local governments. They regarded registration as extra duties that were not a priority in their work.
- Results were seldom submitted to URSB, reportedly because of the costly requirement that responsible officers file quarterly returns at the national office.
- The general public generally failed to see how they would benefit from the registration of vital events.

The MVRS project followed on the Revitalization Project in 2011 with a new approach. MRVS made use of web-based transmission of data as well as mobile phone messaging and computerization of the birth registration process. (MVRS-based death registration, although provided for in the MVRS software, was not made operational.) The system was reportedly installed in 77 districts.<sup>17</sup> URSB annual reports for 2013–2014 through 2015–2016 indicate that a total of 2,030,355 births were registered. According to UNICEF reporting, for most of these registrations, short-form birth certificates were also issued. Another system called CRIMS was added for use in the URSB office, including for printing long-form certificates with security features, and the system was also updated to generate the NIN.

Some of the serious shortcomings in civil registration outlined in the CRVS assessment were addressed with the MVRS project by digitizing data recording and transmission. With the MRVS project it became possible to see what was happening in the 202 connected registration points. However, these 202 "online" registration points accounted for a modest portion of the more than 1,400 sub-counties and 345 health facilities (as of July 2012) where registration was possible.<sup>18</sup>

<sup>14</sup> URSB annual reports unfortunately do not provide separate expenditure data for URSB's civil registration activities. Only a very roundabout way of estimating what this expenditure may have been is to compare URSB's available data for total expenditure before and after 2016. We find the difference between average expenditure for fiscal years 2013/14 and 2014/15 before the changeover and expenditure in fiscal year 2016/17 after the changeover is USh 2.8 billion, or US\$2.5 million. URSB's financial accounts do not allow distinguishing operating from capital expenditure; we estimate that URSB's civil registration expenditure may have been 75% operating (about US\$1.9 m annually) and 25% (about US\$600,000 annually) capital expenditure. Besides these costs the civil registration operation involved salary expenditure for government staff in local governments and health staff in hospitals where birth notification and birth certification takes place. Assuming one person per sub-county and hospital, or about 1,750 across the country at US\$1,200/annum this would add about US\$2 million, and additional costs for office space, supplies, and miscellaneous at US\$300/annum/person amounting to about US\$500,000.

<sup>15</sup> URSB 2014

<sup>16</sup> Chief Administrative Officer

<sup>17</sup> National Registration and Identification Authority and Plan International 2017, p. 3.

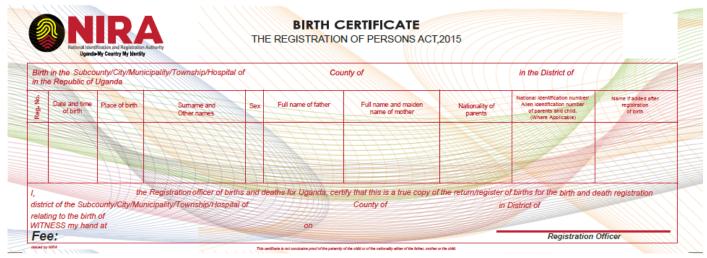
<sup>18</sup> The CRVS assessment (URSB 2014, pp. 10-11) mentioned that Health Centers III and IV were not accredited to register births and could only issue a birth notification: "It is positive that URSB has spearheaded the accreditation of HC-IVs which have been gazetted as registration centers for birth and death. This will cover over 200 additional registration points, implying that many children will have the opportunity to be registered at birth." We will in this report suggest that more is less—that more registration points are NOT an avenue to improve registration service effectiveness. See also Ministry of Health 2012.

As of January 1, 2016, responsibility for BDAR moved from URSB to NIRA. The Birth and Death Registration Law of 1970 no longer applies. Instead, NIRA's work is guided by ROPA 2015. An important aspect of the new law is that no distinction is made between short-form and long-form birth and death certificates. Birth certificates can be issued by district registrars and in all registration areas.

NIRA is in the process of turning its attention to adequate management of civil registration. It determined that integration of the MRVS and CRIMS systems into the national ID system would be too cumbersome, so new functionality is being built into the national ID system to accommodate the digitization gains made under the MRVS project.

NIRA took over from URSB and commenced BDAR in January 2016. Legal documents issued prior to the commencement of BDAR by NIRA remain valid documents. Figure 3 shows a new birth certificate issued in the Mbale district office by a NIRA registration officer. The declarant (one or both parents) must produce breeder and other supporting documents (a birth notification record, copies of the parents' national IDs, a receipt of payment of the fee at a bank). This is an important improvement, but still confined to a few district offices. One issue NIRA must contend with is the push back expected from local governments who have long enjoyed the local revenue generated by charging for short-form birth certificates and will now lose that revenue to NIRA.

Figure 3. New Birth Certificate and Legacy Short-Form Birth Certificates







A total of 117 districts (including five divisions in Kampala City) have been officially gazetted as registration areas through a statutory instrument signed by the Minister of Internal Affairs and published in the *Government Gazette*, while births and deaths are officially notified by all Licensed Medical Facilities, subcounties, municipalities, town councils, and the five divisions of the city of Kampala. There is not yet a Memorandum of Understanding or similar agreement between NIRA and the Ministry of Health to set out the conditions and arrangements applicable to hospital-based registration (but this is included in NIRA's Strategic Plan for 2017/18–2019/20). Finally, all NIRA offices should be able to issue birth and death certificates. (Currently the registration and certification of births, deaths, and adoption orders are still restricted to NIRA HQ, Kampala Main Post Office, Georgina House, and the four regional offices of Mbarara, Arua, Gulu, and Mbale.)

Currently the Uganda Reproductive, Maternal and Child Health Services Improvement Project funded by the World Bank is providing financial support to NIRA in order to: (1) strengthen NIRA's institutional capacity to implement its mandate for the registration of births and deaths, and (2) scale up birth and death registration services.

## 2.2.2. National ID system

### Rollout of the NID

Prior to NIRA's founding, the Directorate of Citizenship and Immigration Control in the Ministry of Internal Affairs was responsible for issuing national IDs (NID). The introduction of a NID had been contemplated as early as in the 1990s. In 2000, Uganda committed to introducing a NID to be used as an identity document for travel within the East African Community. About a decade later a multiagency taskforce was formed to issue the NID prior to the 2016 general elections. The multiagency project was called the National Security Information System (NSIS) project. NSIS engaged the support of sections within the Ministry of Internal Affairs and other agencies, including UBOS, the EC, URSB, the National Information and Technology Authority (NITA-U), and security agencies, among others. At the end of 2013, support from agencies outside of the Ministry of Internal Affairs was formalized in a Memoranda of Understanding.

The NSIS Project implementation strategy provided for the registration of persons in two phases: Phase 1—registration of the population 16 years and above; and Phase 2—registration of persons ages 0–16 years. The target of the first stage was 18 million enrollments, to take place in over 7,400 locations across the country.

The first cards were issued in December 2014. By the NSIS closing date of June 30, 2015, enrollments stood at 16.5 million.<sup>19</sup> NIRA took over the activities of the NSIS Project in July 2015.

A measure taken in March 2017 to mandate the public to re-register their SIM cards using only a valid NID, as evidence of identity prompted new registrations for the NID and made others visit NIRA offices to collect their IDs. This gave another boost to NID coverage.

In May 2017, the "Learners Project" was launched with the support of the Ministry of Education and Sports. This campaign aimed at enrolling an estimated 10 million children in primary, post-primary, and secondary schools, both government and private. By the end of June 2018, enrollment reached 9,817,000, while 6,439,500 had been identified as citizens and were issued the NIN. Learners' 16 and older were issued NIDs.

By law, NIRA is also mandated to register legally resident aliens (excluding refugees). The population census of 2014 estimated the number of aliens to be 504,200.<sup>20</sup> At present, the process has been halted to allow for interlinkage of systems between NIRA and DCIC.

<sup>19</sup> Another USh 25 billion would be needed to enroll the remaining Ugandans by February 2015.

<sup>20</sup> An idea of the mobility of these nonnationals can be gleaned from an IOM study, see International Organization for Migration 2015 <a href="https://publications.iom.int/system/files/pdf/mp">https://publications.iom.int/system/files/pdf/mp</a> uganda 25feb2015 web.pdf. (URL as of 17 March 2018).

Throughout implementation of these campaigns, government has conducted outreach to persons with disabilities and allowed civil society organizations to observe the enrollment process. The campaigns have also experienced a number of issues, including: waiting lines, issues of pay, technology malfunctions, shortage of equipment, and complaints about the "long" enrollment form. NSIS even met opposition from certain sects who called it "satanic." Due to a lack of staff, NIRA continues to experience issues with waiting lines and backlogs of applications.

NIRA has a number of cases where applicants for NID have not been issued with a NID because their citizenship requires further verification. Clearing these applications in a timely manner is critical. According to a binding decision by the African Court on Human and Peoples' Rights (ACHPR) in *Anudo* v. *United Republic of Tanzania*,<sup>21</sup> states bear the burden of proof to show that an individual is not a citizen when it is the state itself that makes such a claim based on the integrity (or not) of its own official state-issued identity documents, such as birth certificates and NIDs.<sup>22</sup>

## Coverage and Inclusion

By the end of March 2017, NIRA had enrolled 16.8 million citizens of which 14.8 million were issued an ID.<sup>23</sup>The target population of those 16 years and older by mid-2017 was an estimated 19 million (of which about 1.5 percent were nonnationals).<sup>24</sup> **This put coverage at close to 90 percent of the target population enrolled and 78 percent of the target population issued IDs.**<sup>25</sup> According to the latest available enrollment data, more than 26 million Ugandans who are over 16 years of age have been enrolled in the national ID scheme, which represents about 66 percent of the Ugandan population.

The National Service Delivery Survey of 2015<sup>26</sup> included a question on enrollment in the NID system and possession of the NID. Table 3 shows the results of the survey: **90 percent of those 16 years and older were enrolled, while 62.9 percent had received their personalized ID.** In addition, the data shows no correlation between issuance of IDs and poverty. Remarkably, Kampala scored lowest of all areas in terms of enrollments. This could to be a self-chosen exclusion and/or unwillingness to enroll. The distribution was uneven, ranging from only 15.7 percent in Elgon (Bugisu; a cluster of eight districts) to no less than 89.4 percent in Karamoja (a cluster of seven districts).

As neither the NID system nor the civil registration system have reached universal coverage, one concern is who remains excluded. Using data from the National Service Delivery Survey of 2015, along with other information available at district levels, an analysis would be possible to determine the characteristics of those excluded. For example, because of the "Learners Project's" focus on children in school, it is estimated that about 4 million (35 percent) children and youth—those who are out of school—remain unregistered.<sup>27</sup>

Another exclusionary factor has been card replacement. Until recently, replacement of lost cards was only possible by the cardholder physically visiting NIRA's central office in Kampala. This had the greatest

<sup>21</sup> The case was brought by a Tanzanian man who found himself forced to live in the no-man's land between the borders of Tanzania and Kenya because of a citizenship dispute.

<sup>22</sup> http://www.african-court.org/en/images/Cases/Judgment/-012%20-%202015%20-%20Anudo%20Vs.%20Tanzania%20-%20 Judgment%2022%20March%202018%20-%20Optimized.pdf (URL as of 29 March 2018).

<sup>23</sup> Presentation Brigadier Stephen Kwiringira, Director Registration and Operations NIRA, delivered at the ID4Africa conference held in Windhoek, Namibia, April 2017. http://www.id4africa.com/2017\_event/Presentations/1-2-5\_National\_Identification\_and\_Registration\_Authority\_Brig.\_Stephen\_Kwiringira.pdf (URL as of 19 February 2018).

<sup>24</sup> This ignores "learners" from 16 and 17 years of age who were enrolled as well. FAQ NIRA website.

<sup>25</sup> Data reported publicly on April 21, 2017 were 16,815,976 cards had been "produced," 14,000,531 had been issued and 1,543,931 remained to be collected. http://www.monitor.co.ug/News/National/ID-registration-moves-to-districts/688334-3897678-duysos/index.html (URL as of 14 March 2018).

<sup>26</sup> Uganda Bureau of Statistics. 2016-2. Unfortunately, the actual period during which the survey was done is not mentioned in the publication. The sample size was about 48,500 persons.

<sup>27</sup> UNICEF Cameroon carried out projects that were similarly targeted at children in school for the issuance of a birth certificate. The projects proved very expensive per child registered because of the high cost of delayed registration in Cameroon, but their most important downside was that it left the most vulnerable children—children out of school—unregistered. https://www.crc4d.com/downloads/2011-12-civil-registration-support-in-cameroon.pdf (URL as of 13 March 2018).

Table 3. ID Enrollment and Issuance for Those 16 Years of Age and Older

Location	Applied for NID	Received NID
Rural	90.5	61.7
Urban	88.3	67.2
SUBREGION		
Kampala	84.5	83.1
Central 1	87.8	72.4
Central 2	88.8	54.7
Busoga	88.6	77.1
Bukedi	91.4	24.7
Elgon	91.9	15.7
Teso	92.4	62.7
Karamoja	95.0	89.4
Lango	90.3	79.2
Acholi	89.9	77.7
Bunyoro	91.5	84.9
Tooro	92.8	52.4
Ankole	91.1	43.4
Kigezi	93.5	77.3
National	90.0	62.9

Source: Uganda Bureau of Statistics 2016-2.

exclusionary effect on the poor and vulnerable, and those living far from Kampala. This invited the emergence of middlemen ("fixers"), illegal forms of "service delivery," and fraud. To address this, NIRA now allows Ugandans to get replacement IDs in 30 districts (including Kampala), and the process to increase availability to other locations is ongoing.

Among non-Ugandans to be registered as aliens there will be those for whom the cost (US\$100) is prohibitive (e.g., students and perhaps certain nationals from neighboring countries who reside in border areas). This is another important potential point of exclusion. Additionally, interoperability between the DCIC and NIRA will be of crucial importance for DCIC's issuance of nationals' passports and NIRA's registration of aliens.

## Organization and Management

The National ID was rolled out in 2014 and NIRA took over officially in July 2015. NIRA presently has 117 offices in districts across Uganda and a planned staff establishment of 607 staff fiscal year (FY) 2018. Each district is expected to have five staff, but all are currently understaffed with an average of just one person.

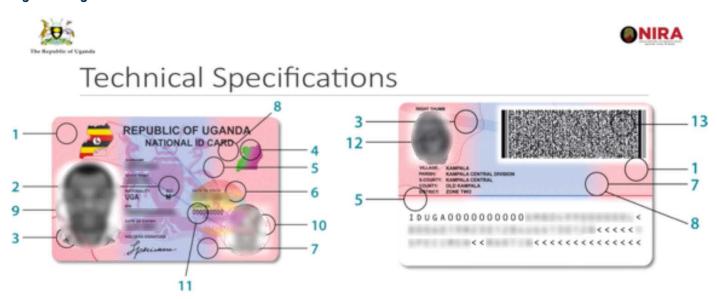
The Board is the governing authority and is supported by a management team which is headed by the Executive Director. The district offices are supervised/overseen by a District Registration Officer (DRO).

#### The NID and Its Features

Extensive demographic data and 10 fingerprints are collected on enrollment for the NID. A 14-digit national identification number (NIN) is issued for all citizens and legal foreign residents at birth registration or immigration (a first letter C or A is used for citizen or alien), and the card is issued to those ages 16+.

The NID is a polycarbonate card with special features intended to make it forge and tamper proof. The front includes the national flag, a laser engraved photograph, watermarks, name, date of birth, gender, card number, and the holder's signature. The back has a barcode which includes biographical and biometric data (2D PFF417—best fingerprint encoded), ultraviolet ink, and other features only visible under UV light. The card format is ISO 7810 and the card has an ICAO 9303 machine-readable zone. Since 2014, the NID card is a valid travel document for entering Kenya and Rwanda.

Figure 4. Uganda's New National Identification Card



Authentication of identity is possible offline against the fingerprint encoded on the card and online against the database through NIRA's Third Party Interface (TPI). NIRA has successfully integrated five mobile network operators into their TPI and has already tested integration with the Uganda Investment Authority (UIA), Ministry of Lands, Ministry of Public Service, URSB, and NSSF. There are ongoing discussions with the Bank of Uganda; Uganda Revenue Authority; and Ministry of Agriculture, Animal Industry, and Fisheries to link them to NIRA's TPI. A template Memorandum of Understanding and nondisclosure agreement (NDA) have been developed for stakeholders accessing NIRA's data through the TPI.

NIRA runs its own database rather than to co-locate with a government data center. NIRA has a backup with another agency at a separate location, and four copies of backups are stored separately.

## Cybersecurity

Cybersecurity is key for governments and national registration authorities. Legal and regulatory amendments to enforce the privacy, confidentiality, and integrity of the most basic personal data are critical.

On the cybersecurity front, NIRA has deployed various tools, including firewalls, invasion detection, data encryption, and mock address filters to mitigate threats. Currently, the biggest threat to NIRA is the offline nature of the system and, with it, the human and physical threat potential. Since identification data are carried manually from rural areas to Kampala, the potential for breaches is in insider threats, theft, and loss. As NIRA moves from analog to digital transfer of this data, and as the frequency of online authentications increase, threat intelligence, detection, mitigation, and defense mechanisms will become increasingly important.

Regarding physical threats, sensitive equipment such as hard disks and flash drives should be physically protected by, for instance, storing the kits in a secure room and using secure transport for the physical transfer of data to NIRA in Kampala. Future live capture of data by connection to the system in headquarters (HQ) is recommended, with a focus on utilizing existing connectivity or rolling out mobile connectivity in districts that do not yet have it, such as Bukwo, Kween, Manafwa, and Bududa. NIRA has planned to implement such reforms.

As enrollment and authentication processes move online, a Computer Emergency Response Team (CERT) and/or Security Operations Center (SOC) for NIRA and the ID ecosystem should be considered, with the aim of threat intelligence, detection, defense, and breach mitigation.

Capacity building on cybersecurity is needed—both for staff at the technical levels, who need in-depth training on the latest trends in threat intelligence, software, and services, as well as for top managerial levels, who need to understand the risks, threats, and importance of cybersecurity.

## Budget

The capital investment made thus far in the NID system can be estimated at US\$137 million, equivalent to **US\$7.50 per cardholder.**<sup>28</sup> Assuming depreciation over seven years of useful life, this is equivalent to US\$19.5 million depreciation annually, about four times the cost of civil registration annually. In one of the early versions of NIRA's strategic plan for 2017/18–2019/20, NIRA's budget planning provided for a budget of USh 142.8 billion for FY 2017/18, USh 260.5 billion for FY 2018/19, and USh 220.9 for FY2019/20, a total of USh 624.2 billion, equivalent to US\$57 million annually.<sup>29</sup>The Government of Uganda, the World Bank, UNICEF, and Plan International cover half of this amount, but the overall shortfall is US\$85 million over three years. The "Medium Term Framework Allocation" under the strategic plan is just USh 269 billion, or only 43 percent of what NIRA estimates it needs.

## 2.2.3. Refugees and asylum seekers

Uganda has a long history of hosting refugees—having sheltered an average of 168,000 per year since 1961. As of May 2018, there were an estimated 1.4 million refugees and asylum seekers living in Uganda, a number which has risen sharply since March 2015 when there were 430,000. Uganda currently hosts the largest refugee population in Africa, while it is third globally behind Turkey (2.9 million) and Pakistan (1.4 million).

<sup>28</sup> CRC4D (https://www.crc4d.com/) data on the cost of 30 new national ID systems published from 2011 through 2018 indicate that Uganda's national ID system would have an expected cost of US\$140 million, i.e., Uganda's national ID's actual cost is equal to expected cost. However, the NSIS project has included in-kind contributions from other MDAs that have not been included in this cost estimate. An approximation is: (1) US\$64 million for the contract with Mühlbauer (2010–2012), (2) USh 138.5 billion for 2014-15 (about half of the requested USh 285 billion), (3) another USh 25 billion needed to conduct the second tranche of the enrollment campaign, and (4) USh 30 billion from the Electoral Commission during the course of 2015.

<sup>29</sup> NIRA 2017, Table 5.2, p. 41.

Uganda's laws and policies on refugee management are widely regarded as among the most progressive and generous in the world. Refugees are integrated into host communities and have access to basic and social services just as Ugandan nationals do. After registering with the Department of Refugees and having their refugee status determined by the Refugee Eligibility Committee, refugees receive food rations and have the right to work, establish businesses, go to school, and freedom of movement. Refugees are also allocated land for shelter and agricultural use. These practices make it possible for refugees to participate in and contribute to the local economy.

In 2015, the Department of Refugees introduced the Refugee Information Management System (RIMS). RIMS, which was developed by a local IT firm, is intended to be a comprehensive web-based information system with modules for registration of refugees (including management of the register of refugees, biometric capture, and credential production and management) and case management (including refugee status determination and special needs management). RIMS enables data to be collected in offline modes (e.g., when connectivity is an issue) and synchronized with the central server periodically. The features of RIMS were inspired by UNHCR's equivalent, ProGres, which the Department of Refugees was using until they launched RIMS. The data from ProGres—then around 350,000 records—was migrated to RIMS by the Department of Refugees at the time of transition. Aside from serving the identification needs of refugees and their case managements, RIMS is also used as the main database for delivering benefits and services specifically to refugees, such as rations.

As of November 2017, 1.38 million refugees were enrolled in RIMS and had active records. Due to delays with centralized personalization of refugee identity cards, a relatively significant number are still waiting for refugee identity cards. The number of unregistered refugees is unknown, however any gap in coverage can be assumed to be minimal. With the considerable rights and benefits arising from registering as a refugee, and the efforts made by the Department of Refugees to offer registration services, there are strong incentives for refugees to register themselves.

The biometric verification of refugees that began in March 2018 uses UNHCR's software—Biometric Identity Management System (BIMS). Refugees who are being registered receive new ration cards and the Proof of Verification document. The aim was for the verification to be completed by October 2018 with 14 verification sites across the country. As of 16 October, 1,084,477 refugees had been verified. At the time of writing, the Government of Uganda is using tools supplied by UNHCR (proGres v4/BIMS) for registration, which have been rolled out across the country. A long-term strategy for refugee data being collected (e.g., where it will be migrated to) and the future of refugee registration was being defined by the Government, with support from the humanitarian and development community.

By law, NIRA bears no responsibility for the registration of refugees for identification; that responsibility lies with the Office of the Prime Minister. However, in line with its responsibilities under the relevant laws in Uganda, NIRA does register the births of refugee children that take place in Uganda. Currently, NIRA issues free birth certificates for children born to refugees, a practice that was inherited from URSB, which previously conducted birth registration. With the support of several Development Partners, including but not limited to UNICEF and Plan International, NIRA provides birth registration services in refugee-hosting communities through periodic registration drives. Because registration of refugees is not catered for under ROPA for identification purposes, refugee birth coverage cannot be clearly ascertained since the child is not assigned a unique identification number.

## 2.3. Functional Systems

## 2.3.1. National Voters' Register

The Electoral Commission (EC) of Uganda started as an interim commission for the organization of the 1996 elections, which were held after 16 years without elections. In 1994, Constituent Assembly Elections had been held and delegates drafted the Constitution promulgated in October 1995. The new Constitution provided for a permanent EC. The Electoral Commission Act of May 1997 established the EC.

The National Voters' Register, maintained by the EC, is the most important functional ID system in Uganda.<sup>30</sup> Indeed, prior to the NID, the only ID that the majority of adults would have possessed was the voter ID, making it in essence a foundational ID. Elections are thus among the government activities that will benefit most from an accurate NIR.

The data show that Uganda has already made great strides in limiting the cost of elections. The average African election cost US\$2.60 per elector prior to 2000. This more than quadrupled to US\$11.30 per elector after 2000. The EC was able to keep costs at US\$8.60 per elector for the 2015–16 elections, saving the country US\$42.7 million (USh 156 billion). More savings should be possible in the future through an accurate National Identification Register which is linked to the National Voters' Register.

As has been mentioned before, ROPA 2015 recognizes the voter ID as an acceptable breeder document for the application for the NID. The national ID project was also originally meant to support the elections of 2011, but it started too late. This changed in the lead-up to the 2016 elections. The EC was an important partner in the NSIS-project, and its resources were used for the NID project. Savings were also realized because the EC was allowed to use NSIS resources, including equipment, for the 2016 elections.

Preparations for the new general elections in 2021 foresee that a new voter roll should be available by February 2020—a year before the elections. The general expectation is that the NIR, and the availability of NIDs to the population, will reduce the workload of the EC and thus the election budget. By law (ROPA 2015), EC polling stations are available for use by NIRA, while the EC is allowed to use NIR data. The veracity of the National Voters' Register is as important as the veracity of the NIR, and the two institutions responsible have to manage some of the same problems: who needs to be included in the database anew and who needs to be flagged in the database as deceased.

Incomplete death registration implies that the EC may have to use expensive methods (biometrics and countrywide registration) to eliminate "ghosts" in the electoral register. Meanwhile, almost 5 million new young voters will need to be enrolled and will require some form of identification to register. In addition, address data are important for the EC to be able to assign voters to polling precincts.

Presently, updating an individual's information in the NIR comes at no cost. However, where the change results in a change of data on the ID card, the fee for printing a new card is USh 50,000. This may disincentivize the public from keeping their data up to date. An online self-service functionality not incurring a fee should become available soon to address this.

## 2.3.2. Single social register and social protection

Since social protection programs provide tangible benefits, they have proven to be effective vehicles to improve the inclusion of beneficiaries in identity systems. Without tangible benefits, poor citizens may often view birth registration or enrollment in an ID system as too costly, yielding no benefits. Social protection programs, when they target the poorest citizens, will at the same time target those who are least likely to have been included in the civil registration or NID system. A recently published World Bank report,

<sup>30</sup> As of mid-year 2018, UBOS data shows the voting-age population is 17,967,000, or 46 percent of the population.

*Incentives for Improving Birth Registration Coverage*, finds linkages between social transfer programs and birth registration coverage, while another upcoming publication of the World Bank provides similar examples for a broader scope of identity evidence than birth registration alone.<sup>31</sup>

One well-known example of the impact of linking Social Protection programs to identity comes from South Africa. Birth registration coverage increased from less than 30 percent in 1996 to 98 percent 15 years later through a strong linkage with the Child Support Grant, which was introduced in 1998 during the presidency of Nelson Mandela.<sup>32</sup>

In Uganda, the Ministry of Gender, Labour, and Social Development (MGLSD) is responsible for social protection policy, the implementation of which includes direct income support and other programs that require reliable identification for effective targeting and financial transfers. Undue duplication of enrollments also needs to be avoided, within programs and between programs. For this purpose, over the next three years, the ministry is introducing a single social registry (SSR) to be linked to the NIR.<sup>33</sup>

A study of various social protection programs to be included in the SSR covered direct income support, social insurance, social care and support services, and other complementary interventions. The Public Service programs are (still) very small in size, but several have sizable target populations. The Public Service Pension Scheme (PSPS) reaches 373,168 civil servants, of which 66,168 are pensioners. The National Social Security Fund (NSSF) caters to at least 1,538,865 registered employees. The Social Assistance Grants for Empowerment (SAGE) program covers 110,000 direct beneficiaries and 500,000 indirect beneficiaries, in 15 out of 121 districts. There are also a number of public works programs, including the Northern Uganda Social Action Fund (NUSAF 3), the Karamoja Livelihoods Programme, the Community-Driven Development Programme, and the Agricultural Livelihoods Programme, which reached an estimated 500,000 beneficiaries as of 2012. The World Food Programme (WFP), with support from Irish Aid, also launched a school-feeding program that caters to 100,000 children in primary and secondary schools in Karamoja.

It is especially important to seek synergy between the SSR and the NIR because NIRA has achieved high coverage of the NID and is expanding its authentication services to more functional users. There are choices and decisions to be made with regards to the seeding of the SSR, online and offline authentication of identity with data held in the SSR or NIR, and credentials to be used (NID or "Social Protection Card"). These choices and decisions have major financial consequences for the Government.

Linkages between the SSR and the NIR can result in cost savings across the Social Protection (SP) sector. For example, in WFP's pilot enrollment in the SSR in seven sub-counties of Karamoja, cost of registration has been about US\$5 per enrollment—expensive by comparison to the national ID (US\$7.50 per ID-holder) and the "Learners Project" (US\$1.40/pupil), especially considering that no credential is being issued in the WFP pilot. **Equipping SP program beneficiaries with NINs and NIDs would reduce duplication across programs and realize significant cost savings alongside the SSR.** 

<sup>31</sup> World Bank 2018.

<sup>32</sup> This is part of a good practice case study of South Africa to also be published by the World Bank.

<sup>33</sup> Social Registries are information systems that support outreach, intake, registration, and determination of potential eligibility for one or more social programs. They have both a social policy role, as inclusion systems, and an operational role, as information systems.

<sup>34</sup> Development Pathways 2017.

<sup>35</sup> Government budget for the Disability Grant, while the number of persons with disabilities according to the population census is 5.6 million, about US\$3 billion (less than US\$1 million) per year only. The same amount is available for the Uganda Women's Entrepreneurship Programme (UWEP). The Youth Livelihood Programme (YLP) receives about US\$12 million per year.

<sup>36</sup> Statistics as of May 2016. The statistics are from Uganda Retirement Benefits Regulatory Authority 2017.

<sup>37</sup> Statistics as of 2015. National Social Security Fund 2016. NSSF's own statistics differ from those reported by Uganda Retirement Benefits Regulatory Authority (URBRA) for end of 2016 (1,143,910 registered members, of which "active" 521,603).

<sup>38</sup> Statistic as of 2015. Source: Ministry of Gender, Labour and Social Development 2016. URBRA reports 152,353 beneficiaries of the Senior Citizens Grant as at June 2016. Oxford Policy Management 2016 (the evaluation of SAGE) states that the SAGE pilot reached around 560,005 people in 124,547 households over a period of four years (April 2011–February 2015), covering approximately 15 percent of households in 14 pilot districts.

In turn, social protection programs and the SSR can help address gaps in NID enrollment by including a program component that provides beneficiaries with support to acquire identity documents.<sup>39</sup> SP programs might target children left out of the "Learners Project" because they were not enrolled in school. In Karamoja, where more than half of school age children are not in school, this leaves out a significant number of poor and vulnerable children. Office- and hospital-based registration will not succeed in capturing those children in the short term without the support of SP programs.

The Ministry of Gender, Labour, and Social Development has already put forward a request to work alongside NIRA to validate the identities of beneficiaries and register those who are eligible under the SAGE scheme.

## 2.3.3. Electronic health management information system

The Ministry of Health (MoH) uses identity information for clients that use its intramural and extramural health services. The vast majority of Ugandans will at some point be clients of the health service, and hence will be entered into a health record kept by the ministry. These records are still very much paper based, but the ministry has plans to further develop the electronic Health Management Information System, as well as a second-generation District Health Information System.

A health credential (health card) has been contemplated but has not been introduced. At some point in the future, a fully functioning electronic health records system will be in place and could in theory have as many records as Uganda's total population. This system will have potential to capture all deaths and their causes, which is the Achilles heel of civil registration and national ID systems in developing countries in general. Health insurance coverage will also begin expanding. For both of these services, electronic authentication of patients' identities can greatly reduce staff time. Future linkages between NIRA, health facilities, and health insurance companies will be discussed.

MoH is also critical for identity management—especially for the notification of births and deaths, in addition to the capture of cause of death, and the generation of vital statistics. While ROPA 2015 does not provide for a notification role for the health sector, NIRA has reported that "All Government, Missionary and Industrial Hospitals" (152 in 2012) are "notification areas" to which Health Centers Type IV (193) have been added.<sup>40</sup> The health sector has a presence in the country with over 5,000 health facilities and interaction with the population for births and deaths, which makes it the natural partner for NIRA. For example, 97 percent of those requiring immunization for their children access a health center.<sup>41</sup>

## 2.3.4. Education Management Information System (EMIS)

The identity of children and youth in school, as well as the identity of teaching staff and other staff in schools are important. According to the latest Uganda National Household Survey of 2017, for the whole of Uganda, 70 percent of the age group of 6-24 years old are in school, which is a total of 12 million, while the number of teaching staff is about 480,000—together amounting to 12.5 million identities. This makes the Ministry of Education and Sports (MoES) a very important institutional client of NIRA.<sup>42</sup>

MoES was a key partner in the implementation of the "Learners Project," whose expected benefits included:

- 1. Authoritative identification of students and pupils,
- 2. Ensure effective implementation of capitation grants and,
- 3. In the future the NINs will be used as index numbers during national examinations.

<sup>39</sup> The study done for the single social registry noted: "Since the NIN will effectively act as unique number for establishing linkages among program MISs and other external databases, the SP sector should put in place strategies to ensure that vulnerable households that do not have National IDs are supported to enroll with NIRA." Development Pathways 2017.

<sup>40</sup> Kwiringira, Brig. Stephen 2017; Ministry of Health 2017.

<sup>41</sup> Data from Uganda Bureau of Statistics 2016-2.

<sup>42</sup> An important proportion of schools is run by religious institutions, not-for profit organizations (NGOs), and private enterprises.

Now that the project has been concluded, MoES plans to use NINs and NIDs as the primary identifiers of pupils and students in schools. This will enable establishment of a credible **functional register for learners** and weeding out of "ghosts." The statistics generated through the functional register will be linked to the **Education Management Information System (EMIS)** and will facilitate easy tracking of transfer of learners, drop-out, and fresh enrollment rates, and ensure effective implementation of capitation grants.<sup>43</sup> This will also support MoES in providing timely data to OPM to establish feedback mechanisms between results and budgeting.

The linkage to the NIR and NID systems will also benefit NIRA by encouraging greater registration. In Kenya, for example, the requirement that students have a birth certificate to enroll in school leads to a rush to registration offices each year (and a high birth registration rate of 60 percent). In Uganda, about 1.2 million children turn six every year and enter primary school. Requiring them to have a birth certificate in order to enroll in school would boost civil registration and help keep the NIR up to date.

## 2.3.5. Integrated Personnel and Payroll Service (IPPS)

The Ministry of Public Service (MoPS) is responsible for human resource management in the government sector—central and local. The government payroll is a substantial outlay. According to the Ministry of Finance data, it amounts to USh 3.2 trillion (US\$880 million) in FY2017/18, or 3.1 percent of GDP.<sup>44</sup> The Ministry is using an Integrated Personnel and Payroll System (IPPS) which it commissioned about nine years ago as part of the Public Service Reform Programme (PSRP). It is a web-based human resource information management and payroll system, implemented in about 200 sites, including in all central government ministries, agencies, departments, and in local government. IPPS includes a payroll system managing a civil service workforce of active employees, as well as pensioners.

From April 11–30, 2016, the Ministry, together with the Office of the Auditor General, conducted a validation exercise by matching the Ministry of Public Service payroll with the data held in the NIR, as a follow-up to an earlier payroll validation exercise conducted in 2014. Civil servants were required to present themselves at NIRA HQ for validation. (Some categories such as Foreign Service Officers deployed abroad, Administrative Attaches, Officers on Study Leave, and Newly Elected Political Leaders were exempt from the exercise.) The "Current Size of Service" was 313,979, of which 303,149 were validated (including 20,676 for follow-up). A total of 2,477 names or dates of birth (1.8 percent of the total) proved irreconcilable and were removed from the July 2016 payroll. The exercise led to an annual savings in the government wage bill of USh 24.6 billion (US\$6.9 million). As a follow-up an interface between IPPS and the NIRA database has been established.

#### 2.3.6. Driving permits

The Ministry of Works and Transportation is responsible for the issuance and replacement of driving permits. Data from the Uganda Revenue Authority (URA) indicate that the number of motor vehicle licenses is close to 800,000 (786,397 per 31 December 2016). The ministry is in contact with NIRA to discuss how to collaborate. The current driving license operation is managed by Face Technologies from South Africa in the form of a Build-Operate-Transfer (B.O.T.) contract that was entered into in 2005. Driving licenses currently have a one- or three-year validity, and the cost of the license depends on the validity duration: USh 115,000 (US\$25) for a one-year license and USh 210,000 (US\$47) for the three-year version. They are laminated, paper-based cards (Figure 5). For each license issued Face Technologies retains USh 60,000 (US\$13.50, since 2011). The contract is set to expire by 2020. The ministry was unable to provide the number of licenses issued yearly, but given the short validity duration, estimate that the annual number might be around 500,000. The current ID card is used for identity verification.

<sup>43</sup> Capitation grants are paid to schools based on the number of recognized pupils enrolled in the schools.

<sup>44</sup> Ministry of Finance, Planning, and Economic Development 2016.

<sup>45</sup> Estimate provided by Ministry of Public Service of Uganda.

Figure 5. Current Driving License





## 2.3.7. Land registry

The Ministry of Lands, Housing and Urban Development (MLHUD), is a cabinet-level government ministry responsible for "policy direction, national standards and coordination of all matters concerning lands, housing and urban development." The ministry's responsibility for land administration reform is of special interest. This process includes: (i) improving land administration; (ii) systematic registration of communal and individually owned land; (iii) strengthening institutions and mechanisms for land dispute resolution; and (iv) strengthening land administration and land management institutions.

A Land Information System (LIS) was launched in 2013. The modernization and computerization of the land registry entailed sorting, reconstruction, indexing, and data capture. By November 2017, 784,000 records had been captured. The modernization of land administration contributes to the reduction in time and costs associated with the registration, storage, access, and retrieval of titles. It prevents encroachment on wetlands, forests, road reserves, and other public land reserves, and reduces the risk of fraud and litigation amongst individuals, families, and communities, and improves the service delivery to the public. Of currently captured land titles, 85 percent are linked to a single owner, while 15 percent have multiple owners. Revenue collections have increased since the launch of the LIS in February 2013 from US\$10.4 m per annum to US\$36 m per annum, an increase of almost 250 percent. Total revenue collected from 2013 to 2016 is US\$88 million.

The ministry would like to be able to verify the identity of owners to enhance integrity of its system. While virtually the whole of the Central Region is covered by the new, digital land administration system, at the start of the project only 18 percent of the country's land was registered, with registration of rural land as low as 5 percent. Land administration has been highly inefficient and characterized by corruption. Risks remain very high for both investors and communities, thus limiting volumes of investment. Improved access to land would enable firms in the private sector to secure loans using land as collateral. Security of property rights and the ability to draw on local or national authorities to enforce those rights would be central to preserving livelihoods and maintaining social stability in Uganda.<sup>46</sup>

For government there is also the immediate interest of land tax revenue. It is hard to estimate how many individual identities are associated with land ownership for the whole country. Based on what has been captured and assuming two owners for the 15 percent of properties with multiple ownership, 900,000 individuals are associated with 18 percent of the country's land. Applying this to the whole of the country renders 5 million persons, which may be well below the actual number, considering the important share of the population in agriculture (about 60 percent are engaged in agriculture, forestry, and fishing).

<sup>46</sup> Customary land tenure, applicable to about 80 percent of Ugandan landownership, is without any official documentation. Local systems of justice that were used to settle disputes have suffered from a breakdown of the clan system.

#### 2.3.8. Financial inclusion and e-KYC

Uganda's financial inclusion profile is weak compared to selected African countries, but over the short period covered by research (2009-2013), there has been significant improvement. The FINSCOPE survey for 2013 showed that the share of financially excluded adults decreased from 30 percent in 2009 to 15 percent in 2013.<sup>47</sup> While the (adult) population grew from 14.1 million to 16.3 million, the number of financially excluded adults decreased from 4.2 million to 2.4 million. The growth of the use of formal institutions (banks and formal non-banks)<sup>48</sup> from 4 million adults in 2009 to **8.8 million adults in 2013 (54 percent of all adults)** is most relevant in this context, as it is an indicator of the number of persons whose official and accurate identity registration is essential for KYC<sup>49</sup> requirements. This number will have grown further. This increase has not been accompanied by an increase in the number of persons that operate an account, which remained at only **19.5 percent (3.1 million adults)**. Further, FINSCOPE analysis shows that bank account penetration is highly correlated with financial affluence. Banks have difficulty bringing down perceived and actual thresholds for less affluent citizens.

World Bank data indicate that 28 percent of the population 15 years and older had an account with a financial institution in 2014, equivalent to 4.8 million Ugandans.<sup>50</sup> The **number of bank accounts by end of 2017 was approximately 8 million, of which 6 million were active.** By comparison, there is serious competition from **Mobile Phone Network Operators (MNOs) which have 19 million registered mobile money accounts of which 11 million are active.** Unlike the growth in banking, **mobile money services** have expanded quickly. The FINSCOPE survey has shown that it is especially these services that have brought about the decrease in financial exclusion over the 2009–2013 period. The number of mobile phone subscriptions rose from 2 million in 2006 to 16 million in 2012 (and according to GSMA have further risen to 29.5 million subscriptions). While **33.7 percent of the adult population (5.4 million) were registered users on mobile money services, 56 percent (8.9 million) are using the services.** For banks this means an extra challenge from MNO competition over customers. On the other hand, it implies that financial inclusion could be further improved if financial services can be offered in an easily comprehensible and user-friendly way. The inclusive coverage of the NID is helpful in this regard.

The Uganda Bankers Association (UBA) management believes banks do have a disadvantage in onboarding clients because of KYC regulations. Even while progress has been made because of the NID, there are remaining problems. Even if a customer has a NID, providers are unable to directly query the NIR to verify the authenticity of the information. As a result, providers must conduct manual customer identity verification. Many banks will not onboard customers without requesting additional documentation such as utility bills, local council letters, or tenancy agreements. This drives up the cost of doing business, discouraging banks from targeting low-income customers. In addition, low-income customers may struggle to obtain the required documents and drop out of the bank account application process (UNCDF, MM4P 2015).

A recent study of KYC requirements for digital financial services, done for the United Nations Capital Development Fund's (UNDCF) Mobile Money for the Poor (MM4P) program sets out how the new national ID can bring about a watershed change for the KYC process.<sup>51</sup> Discussions are taking place between the Bank of Uganda (BoU), the Uganda Bankers Association (UBA), NIRA, and National Information Technology Authority Uganda (NITA-U) about allowing banks access to the NIRA database for **online** 

<sup>47</sup> Economic Policy Research Centre 2013. An invitation to submit expressions of interest for conducting a new survey was issued in September 2017 by Financial Sector Deepening Uganda (FSDU); unfortunately the data used in the text is somewhat dated.

<sup>48 &</sup>quot;Formal" financial institutions are those regulated by the Bank of Uganda (commercial banks, microfinance-deposit taking institutions [MDIs], and credit institutions). "Non-bank formal" institutions (other formal) are other microfinance institutions (MFIs), Savings and credit cooperative organizations (SACCOs), insurance companies, cell phone mobile money, non-banking financial institutions like foreign exchange bureau, money companies, money transfer services like Western Union.

<sup>49</sup> e-KYC facilitates banking, insurance, telecoms, and other institutions to validate the identity of an individual by verifying their personal details, such as name, address, etc., against his or her biometric information stored in a national ID system. Robust national ID systems (with authentication mechanisms) can reduce AML/CTF risks by supporting financial institutions to reliably identify and authenticate users through e-KYC.

<sup>50</sup> https://data.worldbank.org/indicator/WP\_time\_01.1?locations=UG (URL as of 24 March 2018).

<sup>51</sup> UNDCF-MM4P 2017.

**identity verification (e-KYC),** and the role which BoU, NIRA, and NITA-U will play. Options need to be evaluated for technical and legal feasibility, costs, and risks of data breaches (identity and/or financial). The stakeholders may learn from the solutions that have been found in other countries (e.g., in Estonia and South Africa).

For both banks and MNOs, the additional challenge is how to establish a solution for a large number of market players, without the risk of leaks of sensitive information both about clients as well as the banks/MNOs themselves, and the establishment of collective defenses for cybersecurity. For government and NIRA the risk of private sector players harvesting data from NIR needs to be managed as well.

## 2.3.9. Tax register

Uganda has a structurally low tax revenue to GDP ratio, 10-12 percent of GDP—the lowest among East African countries. Tax compliance and the broadening of the tax base would benefit from better data, including data concerning taxpayer identity. The Uganda Revenue Authority (URA), which is, just as BoU, an autonomous organization under the Ministry of Finance, Planning, and Economic Development, keeps a tax register that by end of 2016 numbered 79,243 nonindividual (legal person) taxpayers and 883,632 individual taxpayers. URA requires both groups of taxpayers to have a tax identification number (TIN), however the forms used for the acquisition of the TIN have not yet been amended to include the NIN, and the tax register has no existing linkage to the NIR. The TIN is needed for all taxpayers, for import and export, to claim benefits (e.g., tax refunds, to access bank loans over USh 50 million (US\$13,750), first time motor vehicle registration, and process land transactions over USh 50 million). This led the URA to administer transactions that involved 2.3 million natural or legal persons alone in the first half of fiscal year 2016/17. One could easily see that, when a TIN is required for a land or bank transaction, verification against the NIR could be simplified, and duplication of efforts could be avoided by linking the tax register as a functional user of the NIR to access basic information about individuals applying for a TIN.

#### 2.3.10. Business registration

URSB's **business registration** function is another important functional system that could benefit from linkage to the NIR. The **business registration** process, which has been found to be inefficient, slow, and a significant barrier for entering the Ugandan market, continues to be a burden for enterprises. According to the Doing Business Report 2013, starting a business in Uganda required 15 procedural steps and took 33 days, with a cost amounting to 77 percent of income per capita. This ranked Uganda number 144 among 183 economies analyzed on this indicator, significantly behind such regional neighbors as Rwanda (8), South Africa (53), and Tanzania (113). Forty-eight percent of surveyed microenterprises in Uganda noted that the financial cost of completing registration procedures was a serious barrier.

**Business licensing** was an additional encumbrance for businesses. The multiplicity and overlap of business licenses, levies, fees, and permits that exist at the national and subnational government levels creates unnecessary costs and stymies business activities. To avoid the high cost of compliance, a lot of firms choose to operate informally and, as result, gain an unfair advantage over formal firms. Easier registration and licensing processes could have a major impact on the reduction of transactions costs for firms operating formally and improve their competitiveness. It could also motivate firms in the informal sector to transition to the formal sector, thus leveling the field and also contributing to the increase in government revenues.

A One-Stop-Shop (Figure 6) on a dedicated floor in the URSB office and an online presence has been developed. The Pilot "Business Facilitation Centre" currently represents seven agencies: Uganda Registration Services Bureau, Uganda Revenue Authority, National Social Security Fund, National Identification and Registration Authority, Kampala Capital City Authority, National Environmental Agency, and the Ministry of Local Government.

URSB annual reports do reveal a growth trend of 11.3 percent for **business registration** over five fiscal years, 2012/13-2016/17. Each business registration requires due diligence regarding the identity of persons

Figure 6. URSB One-Stop-Shop Business Facilitation Center



Source: URSB 2017

involved, but URSB's volume of business registrations is very modest. Digital identity authentication might be possible at the point of service as URSB is now hosting NIRA in the Business Facilitation Centre. URSB conducts other activities of a legal nature, including trademarks, patents, and more, amounting to a total of almost **100,000 identified outputs** (not including marriage registration) that all may require reliable identity authentication of one or more identities of natural persons. That number has grown more quickly, from about 40,000 to about 100,000.

#### 2.3.11. Vital statistics

UBOS is an autonomous agency under the Ministry of Finance, Planning, and Economic Development. UBOS has a seat on the NIRA board, and it has played an important role in the NSIS project. Its statistical work has been instrumental in providing insight in the coverage of birth registration and the new NID, as has been shown before. The bureau is not a client for personal information on individuals. However, it is an institutional client for depersonalized data from the NIRA for the purposes of producing and publishing vital statistics. NIRA needs to work with UBOS to define what data UBOS needs, and what NIRA is advised to use in terms of key performance indicators. Monitoring coverage of the national ID system is equally important, and requires continuous engagement between UBOS and NIRA.

#### 2.3.12. Mobile Network Operators (MNOs)

MNOs are regulated by the Uganda Communications Commission. Mobile phone penetration according to the International Telecommunications Union (ITU) data (2016) was 55/100 as compared to 74/100 for Sub-Saharan Africa. Mobile voice and data services have changed Uganda's telecommunications market, as fixed-line infrastructure is rudimentary. Mobile networks carry most voice traffic and account for the vast majority of Internet connections. With recent investment in long-term evolution (LTE) (4G) technologies, the reach and capabilities of mobile broadband services have increased immeasurably. This has led to a range of social benefits, including the ability of individuals to make use of banking and a range of m-commerce services. Greater Internet bandwidth through international cables has also reduced the cost of mobile backhaul, and consequently the end-user cost of such services has fallen steadily. The market

has seen consolidation among operators. GSMA data<sup>52</sup> show a **4th quarter of 2017 number of connections of 29.5 million**, and a year-on-year growth of 8 percent, 97 percent being prepaid and 32 percent having broadband. A large number of Ugandans thus access the Internet with their mobile phones. International Telecommunications Union data indicate that Uganda had **21.9 million users of the Internet**, the providers of whom are regulated by the Uganda Communication Commission (UCC) as well.<sup>53</sup>According to information shared by UBA, **MNOs have 19 million registered mobile money accounts of which 11 million are active.** 

Two high-profile incidents have led to a strengthening of the regulations and identity verification of applicants for SIM cards.<sup>54</sup> Forensic research after the first incident in March 2017 led to information found on the victim's mobile phone regarding messages originating from unregistered SIM cards. This triggered the decision for a complete and mandatory re-registration of SIM cards, for which the NID was the only allowed credential. This led to a wave of new ID enrollments as well as collection of personalized IDs at NIRA offices from prior registration. Most recently a new problem of mobile money fraud has led to new concerns.

The onboarding of new mobile phone users, and frequency of de- and re-activation of SIM cards, make identity verification a high-volume, high-cost business obligation. For example, MTN has cited a volume of 10,000 identity verifications per day. In the beginning of 2018, the government obliged all SIM card holders to register their SIM card. NIRA provided some biometric ID readers to the UCC to enable MNOs to conduct real-time NID authentication while they aligned specifications with NIRA to procure their own devices. A third party interface integration for the telecom sector is now reported live.

#### 2.3.13. Credit reference bureaus

Banks and financial institutions more broadly depend for their lending business on credit reference information and client credit scores. **Compuscan Uganda** is one of nine subsidiaries of Compuscan Holdings South Africa (founded in 1994). Compuscan had for seven years (2008-2015) been the only credit reference bureau. In 2015 BoU licensed **Metropol**, a Kenyan company, to enter the credit reference market. Compuscan has been issuing "financial cards." It is currently mandatory that a customer presents a financial card detailing credit history during loan appraisal. Credit reference bureaus aggregate financial information about companies (corporate and SMEs) as well as individuals, providing lenders with information to access creditworthiness of borrowers and mitigate risk of default. To access credit, an individual or company must present a financial card to the commercial bank. This helps commercial banks track customers. Compuscan has issued close to **1.5 million financial cards** in Uganda. Reportedly the cards contain biometrics that can be read by fingerprint readers available in over 700 branches of financial institutions. The ability for credit bureaus to authenticate customers against NIRA's data has enormous positive implication for financial sector and credit market development based on the increased access to credit for individuals and businesses. This will also facilitate and increase financial inclusion, including for the underserved layers of the Uganda population.

#### **2.3.14.** Insurance

The insurance industry in Uganda is still nascent.<sup>55</sup> Uganda has one of the lowest insurance penetration rates in Sub-Saharan Africa, estimated at 0.8 percent compared to Tanzania's 1.1 percent, Rwanda's 2.3 percent, Kenya's 3.5 percent, and South Africa's 14.2 percent. Uganda's 0.8 percent penetration implies

<sup>52</sup> https://www.gsmaintelligence.com/markets/3506/dashboard/ (URL as of 23 March 2018).

<sup>53</sup> https://data.worldbank.org/indicator/IT.NET.USER.ZS?locations=UG (URL as of 24 March 2018).

<sup>54</sup> One incident in 2017 concerned the killing of police spokesman Andrew Felix Kaweesi, his bodyguard, and driver who were assassinated on 17 March, http://www.theeastafrican.co.ke/news/The-killing-of-Uganda-police-spokesman-outside-his-home/2558-3853730-qj0jpiz/index.html (URL as of 23 March 2018). The second incident was a kidnapping case which led to the killing of the victim in February 2018. http://www.monitor.co.ug/News/National/UCC-telecoms-under-fire-illegal-SIM-cards/688334-4323916-cxij88z/index.html (URL as of 23 March).

<sup>55</sup> A survey commissioned by the Financial Sector Deepening Uganda (FSDU) on behalf of Uganda Insurers Association (UIA) has allowed a better understanding of the sector. Financial Sector Deepening Uganda and Uganda Insurers Association 2016.

insurance coverage for just **300,000 insurance policy holders** in 2018. In light of this low penetration rate, the insurance regulator, Insurance Regulatory Authority (IRA), has over the years undertaken reforms in a bid to improve the industry. According to IRA, there are about 28 insurance companies in Uganda with 20 companies offering non-life insurance policies and eight companies offering life policies.

Ugandans still use "informal" coping mechanisms much more often than formal insurance. This includes borrowing from formal and informal institutions, friends or family, a salary advance, borrowing from moneylenders, seeking donations, or reducing consumption (FINSCOPE survey 2013). The FINSCOPE survey 2013 reports that **around 350,000 adults** use formal insurance.<sup>56</sup> The formal insurance market is still so small that, for online identity authentication services, the larger insurance companies would do best to join forces with the banking industry.

# 2.4. Legal and Regulatory Framework

No legal review has been carried out as part of this assessment. However, it should be noted that Uganda has a number of important pieces of legislation that may need to be reviewed in the future to ensure a favorable legal environment and clarity in the mandate.

- ROPA No. 4 of 2015, which established the National Identification and Registration Authority with a mandate to register citizens in Uganda and in the diaspora, and aliens. ROPA does not cover refugees other than for purposes of birth and death registrations. It should be noted that ROPA 2015 excludes marriages and divorces, which are still under the jurisdiction of the URSB. Although ROPA 2015 may have some gaps, it is a relatively new piece of legislation and has not run its course to be truly tested before amendments are considered. In the immediate term, there is a need to focus on enforcement of the ROPA provisions to enable NIRA to deliver on its mandate. Future amendments of the law may be necessary at a later date to close gaps identified during implementation.
- Data Protections and Privacy Law is currently being considered by the Parliament. There is an
  immediate need to expedite its adoption to ensure safeguarding of personal information sharing.
  Amendments to the current draft may need to be introduced to align with the EU's General Data
  Protection Regulation.
- The Refugee Act mandates the Refugee Eligibility Committee, supported by the Commissioner of the Department of Refugees, to accept and process applications for refugee status, but it is silent on the issue of refugee registration and identification. The 2010 Refugee Regulations have specific provisions regarding the registration and provision of identification and travel documents for refugees by the Commissioner. Neither the law nor the regulations refer to civil registration of refugees. Meanwhile, ROPA, which is supposed to govern the civil registration and identification of all persons in Uganda, specifically excludes refugees. In terms of confidentiality, the Commissioner is only allowed to disclose information in the register of refugees after receiving written consent from the refugee concerned. The regulations also allow, "... any public officer, in the exercise of his or her official duties, with the written authority of the Minister, inspect the register of refugees and make copies of extracts from it," which, owing to ambiguity, could pose a data protection concern.
- Other relevant pieces of legislation that need to be looked at in extensive detail to harmonize their correlation to the use of the NIR database include:
  - Children's Act
  - National Citizenship and Immigration Control Act

<sup>56</sup> In the case of insurance policies there may be next-of-kin, or third parties (e.g., 3rd party liability) as beneficiaries of a policy, which implies that a policy may often imply more than just one person and identity record needed.

- National Information Security Strategy (NISS) 2011 and the National Information Security Framework (NISF)
- Computer Misuse Act 2011
- Electronic Signatures Act 2011
- Electronic Transactions Act 2011

The laws listed above are critical aspects of the legal enabling environment for effective identity management.

# 2.5. Principles on Identification

Table 4 summarizes Uganda's degree of alignment with the Principles on Identification for Sustainable Development, which have been endorsed by 22 organizations including the World Bank, UN agencies, and other public and private sector institutions.<sup>57</sup>

Table 4. Principles on Identification

Principle	Diagnostic Uganda
Ensuring universal coverage for individuals from birth to death, free from discrimination.	Foundational Identity System rollout is equitable for the NID registration of learners focused on learners in registered government and private schools. Birth registration is currently done at NIRA HQ and four regional offices. However, registration campaigns have left out about 4 million children, 5–15-year-olds who were out of school, as well as those whose citizenship is difficult to determine.
Removing barriers to access and usage and disparities in the availability of information and technology.	NIRA is moving cautiously with regards to online identity authentication and working with a variety of stakeholders to find the best arrangements for each. Work is ongoing to improve connectivity between NIRA HQ and the districts to enable full service delivery at the districts.
Design	
Establishing a robust—unique, secure, and accurate—identity.	As far as the NID is concerned, this appears to be the case. NIRA is recommended to be in control of civil registration service delivery.
Creating a platform that is interoperable and responsive to the needs of various users.	NIRA is constrained by budget and human resources and a seriously challenging mission to achieve and maintain universal coverage of foundational identity, and at the same time serve institutional demand.
Using open standards and ensuring vendor and technology neutrality.	NIRA is constrained by contractual obligations.
Protecting user privacy and control through system design.	Data Protection and Privacy Law is now in Parliament (August 2018). No review has been done as part of this assessment.
Planning for financial and operational sustainability without compromising accessibility.	Uganda's Government is running a substantial deficit requiring fiscal restraint. NIRA is still forced to work with insufficient financial and human resources.

<sup>57</sup> World Bank 2017-1.

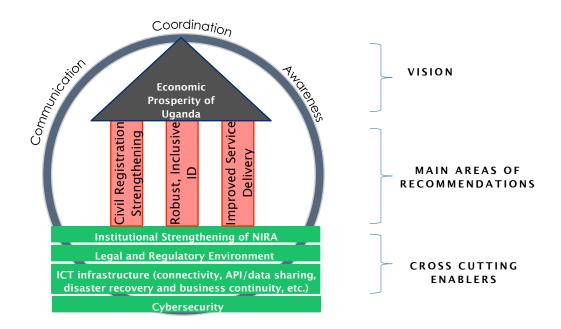
Governance	
Safeguarding data privacy, security, and user rights through a comprehensive legal and regulatory framework.	No legal assessment has been done as part of this work, but can and should be addressed through a targeted legal review exercise.
Establishing clear institutional mandates and accountability.	Improvement is needed in establishing accountability and performance parameters for all ministries and agencies involved in birth and death registration, in particular the Ministry of Health and Ministry of Local Government.
Enforcing legal and trust frameworks though independent oversight and adjudication of grievances.	The Minister of Internal Affairs, Parliament, and the Auditor General subject NIRA to oversight.

Source: For the principles, World Bank 2017-1.

# 3. Recommendations

The recommendations from this assessment fall within the following categories:

## Overview of recommendations



Based on Best Practices from OECD, InfoDev, UNESCO, ITU, NIAT

## 3.1. Overall Recommendations

Key Message: NIRA lacks the proper budget and staffing to fully meet its mandate. This lack prevents NIRA from providing robust, continuous service at district levels and making necessary investments to address coverage gaps and deficiencies in the civil registration system. Lack of staff also hinders NIRA's ability to meet growing demand from government and private stakeholders for access to NIRA's TPI for authentication and verification of identities.

- NIRA's budget needs to be raised to 2 percent of GDP for the medium term (2018/19-2023/24), justified by itemization and review. This translates to USh 200 billion annually with a 5 percent annual inflation adjustment.
  - NIRA's Strategic Plan for 2017/18–2019/20 provided for a total budget of USh 624.2 billion over three years. In comparison, Peru spends 0.065 percent of its GDP on civil registration and national ID (USh 65 billion), while South Africa spends 0.2 percent (USh 200 billion). This puts Uganda in the same league as South Africa, at 0.2 percent of GDP. However, both Peru and South Africa have systems in a "steady state," meaning they already have universal coverage of their civil registration and national ID systems and require no further major

<sup>58</sup> Based on 2016 GDP corrected for 5 percent annual GDP growth and 5 percent annual GDP inflation.

- investments. Uganda, meanwhile, needs to continue investment to achieve full coverage and a "steady state," thus the budget will need to exceed 0.2 percent of GDP for a few years.
- According to benchmark data based on five country cases studied by the World Bank and the World Health Organization, the investment in civil registration needed in Uganda could cost between US\$1.41-2.98/capita.<sup>59</sup> This implies an investment between USh 200 billion and USh 420 billion. If this investment were done over a period of five years, NIRA's annual budget would have to be between USh 105 billion and USh 285 billion. However, NIRA is required to stay within a three-year budget of USh 270 billion.
- Justification for increasing NIRA's budget could come from a cost-benefit analysis. In Zambia, for example, a World Bank-funded cost-benefit analysis found an investment of US\$135 million in the ID system was estimated to return US\$1.9 billion in savings and benefits. Costs and savings for Uganda would be proportionally higher given a population 2.5 times as large.
- A costed national CRVS strategic plan will also be critical for providing direction, strategies, and the associated costs for achieving universal civil registration. It should be linked to the NDP to ensure adequate budget allocations.
- A continuous presence in all districts would mean NIRA's workforce must be reviewed and adjusted upwards significantly, with an associated budget increase. NIRA's budget allows the deployment of only 600 staff, 8.5 percent of South Africa's 7,000 staff, while the workload is comparable in both countries. NIRA's staff structure was approved based on operations that focus on registration. With the changing nature of daily work demands, such as to continue to develop TPIs and work more closely with key stakeholders who want to leverage NIR data for authentication and verification, NIRA needs to review its structure to cater for additional requirements, including in managing technology. Therefore, staffing requirements and allocation should also be reviewed and used to amend the wage bills.

Key message: Revenue streams need to be revisited to encourage birth and death certification. Authentication and verification fees could replace lost revenue from charging for documents.

- Fees are an onerous requirement which discourage individuals from seeking birth and death certification. Abolishment of fees for basic NIRA services would raise public awareness through word of mouth, and help instill in NIRA, health, and local government staff that civil registration serves the public interest. If it became widely known that NIRA's services are free, charging "informal" fees would also become more difficult and would be more commonly seen (and reported) as corruption.
- The Government of Uganda should therefore consider providing free birth and death certification for births registered within the prescribed period, while fees should be charged for late registration certifications and replacement of lost documents. Lost revenue would be compensated for by the savings possible across the public and private sectors from having access to accurate and complete population and identity data (leveraging the NIR).
- In revising the revenue streams, it is important to recall that NIRA is expected to contribute to the consolidated fund through Non-Tax Revenue (NTR) from fees levied on services (e.g., access fees for the TPI, etc.). A trade-off would therefore be required between removing fees on birth and death certification and adding or increasing fees on other services, such as authentication and verification. Additional options for revenue generation include building revenue-producing services around civil records, such as services for tracing ancestry.
- Changes to the fee structure may necessitate amendments to ROPA 2015, thus revising fee structures is recommended as part of a review of ROPA 2015 once it has run its course.

<sup>59</sup> World Bank and World Health Organization 2014.

# Key message: Identification is an issue of national significance, with multiple stakeholders involved and affected.

- MDAs need to be held accountable in their key performance parameters for their role in the identification ecosystem.
- Other stakeholders, such as Development Partners and the private sector, also need to be accountable for supporting the identification ecosystem for financial inclusion, improved service delivery, and cost savings.

# Key message: Expedite the adoption of the Data Protection and Privacy Bill, which is needed to safeguard personal information sharing.

 Amendments to the current draft may need to be introduced to align with the EU's General Data Protection Regulation.

# 3.2. Civil Registration Strengthening as the Foundation of Identification

Key message: NIRA has to focus on an ambitious civil registration agenda, achieving universal registration of births and deaths within the shortest possible time frame (less than five years).

- Civil registration and the national ID should be recognized as national priorities and reflected in the National Development Plan III. NIRA should be included in the consultations on the preparation of the NDP III.
- The organization of civil registration should address the 'flow' of vital events, meaning it should capture childrens' information immediately when they are born or die, enable real-time (or near-real-time) updates of the NIR, which is critical for maintaining the veracity of the NIR.
- On the path toward universal birth registration, the tendency is for disparities to grow before they have been overcome when universal registration is reached. The country has an option to choose a more "pro-poor" birth registration policy. This, for example, can be achieved when birth registration is linked to social protection programs that are targeted at the poorest segments of the population. Alternatively, adequate management information could help the NIRA to focus especially on regions and districts that show low coverage.
- Reduced budget allocations prevent NIRA from adequately populating its structure and bringing services closer to the people. NIRA should have a fully strengthened district presence in the long term, while finding a way to leverage collaboration with others.
- NIRA should consider decentralizing its registration and certification services to hospitals, health centers, and sub-counties. It may also consider conducting itinerant (mobile) registration for underserved and hard-to-reach locations to ensure that all vital events are captured, including those not notified. Mobile registration units (traveling buses) can be introduced for late and delayed registrations, special events, or where a temporary office is needed. These should not, however, replace permanent district presence.
- NIRA would benefit from more presence in larger district health facilities where higher volumes
  of vital events occur and limiting dependency on local governments for notification by
  employing mobile phone notification using a standard analog and/or digital (USSD) format.
- NIRA should supply standard birth and death registration materials to all registration points, to eliminate the various types of materials used in the field.
- A multi-sectoral CRVS coordination mechanism is needed to support strategic planning and coordinate implementation of CRVS across agencies.

Key message: To achieve continuous universal registration, NIRA needs to build partnerships with and leverage the comparative advantage of key stakeholders, particularly the Ministry of Health, Ministry of Local Government, faith-based organizations, cultural institutions, civil society organizations, and the private sector.

- A stakeholder mapping is needed to assess opportunities for collaboration with the Ministry of Health, Ministry of Local Government, and other civil society and community-based organizations. A national-level workshop should be held with identified stakeholders to discuss ways forward and agree on the role each can play in achieving universal registration.
- NIRA should engage with the Ministry of Local Government to include CRVS as part of the
  performance assessment indicators for local government, and to ensure that NIRA's activities are
  embedded in local governments' development plans and are not seen as "other activities."
- NIRA should engage with the Ministry of Health and Ministry of Local Government to have clear roles and responsibilities for health works and sub-county chiefs, which should be included in their official roles and responsibilities.
  - Health officials could, for example, do the very simple e-birth notification or registration of
    deaths occurring at health facilities. Registration points at health facilities and elsewhere
    could be staffed by civil registration personnel, and NIRA could consider using NIRA staff as
    registration officers in those health institution-based registration points.
- The enforcement of performance parameters for the Ministry of Local Government and the Ministry of Health in their support of BDAR is essential. Government can play a significant role in driving this message through a requirement that Ministerial Policy Statements should be explicit about ministries' roles in BDAR.
- NIRA staff deployed to districts should be introduced to the CAOs and the district leadership (LCV Chairpersons, RDCs, etc.) and incorporated as members of the District Technical Committees for ease of coordination.

Key message: NIRA must work toward a functional district presence with a fully populated staff establishment, and this requires Parliamentary support.

- As noted in the overall recommendations, this necessitates proper budget and staffing to be addressed.
- Awareness needs to be raised within the policy arm of Government on the importance of properly funding and staffing continued registration to keep BDAR up to date and ensure the NIR is reliable.

#### Key message: The deficiency of death registration should be addressed.

- Death registration is compulsory by Ugandan law, but enforcement is lacking and actual death registration rates are extremely low.
- Flagging of deceased NID holders in the NIR is one of the most important activities that needs to be done to preserve the veracity of NIRA's database.
- Considerable investments will be needed to increase birth and death registration, including
  partnerships with the health sector and local governments. In particular, the health sector and
  NIRA should enter into a detailed discussion on how to better capture deaths occurring at health
  facilities.
- Positive incentives for timely vital event registration (e.g., burial permit, life insurance) need to be identified and introduced. An awareness campaign also needs to be launched to help people understand the importance of proper reporting of vital events such as deaths.
- The importance of birth and death registration could be articulated in the NDP III.

#### Key message: Marriage registration is also a critical part of civil registration.

- ROPA 2015 excludes marriages and divorces, which remain under the jurisdiction of the URSB.
   These are a critical part of the overall CRVS system.
- URSB is working to improve the organization of marriage registration and already requires a NIN for marriage registration. Once records are computerized, a linkage to NIRA's TPI should be explored to enable the systems to interoperate.

Key message: Legacy records are permanent, legal records which will eventually need to be collected and digitized, though this may not be an immediate priority.

 Legacy records are present in local government offices countrywide and will need to be collected and centrally stored. Part of these records will have to be digitized. Domestic and international support can be sought for the preservation and digitization of these records.

Key message: NIRA and partners should carry out awareness campaigns and sensitization for citizens to understand the importance of registering vital events.

# 3.3. Ensuring a Robust, Inclusive NID System

Key message: The current model employing both continuous registration combined with the campaignbased approaches of the past is not sufficient to meet the annual expected caseload for registering vital events and issuing NINs and NIDs.

- Government will need to be made aware of the necessary planning and budgetary implications
  of continuing to institute mandatory registration campaigns which NIRA must execute.
   Campaigns should be planned at a national level, and NIRA should be included in the planning
  process.
- The campaign approach can continue to be used to address backlogs and ensure data are up to date
- NIRA's continuous country-wise presence needs to focus on single year caseload cohorts: those
  that will reach 16 (the age for the NID), the expected newborns, and the estimated deaths in a
  given year, while also managing late registrations.
- Staffing in NIRA's district offices will need to be increased in order to meet annual demand of new entrants.

Key message: A focus is needed on closing coverage gaps, especially among vulnerable populations, and clearing backlogs.

- Closing remaining coverage gaps should be prioritized. For example, children who may have been missed in the registration of learners' project.
- Emphasis also needs to be made to extend registration service to vulnerable populations (e.g., people in hard to reach areas, the elderly, and special needs persons). This may necessitate a mapping of the existing excluded groups and structures which exist to help reach them, as well as development of incentives and tools (e.g., developing an app) to encourage and facilitate registration.
- Backlogs arise when applications are held up in the process of citizenship verification. More time and resources may be required to verify citizenship and address other issues to ensure that applications are processed in a timely fashion.

Key message: UBOS must work toward improving their backend system to link with NIRA's TPI for continued collaboration. NIRA already employs UBOS' detailed population projections to predict annual caseloads. NIRA is also charged with producing vital statistics data on an annual basis and receives technical assistance (TA) from UBOS for this purpose.

• To further strengthen existing collaboration, the UBOS system needs to be upgraded to meet the technical requirements for linking with NIRA's TPI.

Key message: NIRA and the Directorate of Citizenship and Immigration Control (DCIC) need to develop and upgrade their 3rd Party Interfaces to be able to link to the NIR for mutual benefit.

- DCIC needs to expand the information it collects from resident aliens to support NIRA to update the NIR without having to redo each resident alien's registration.
- Linkages between the two systems are needed to facilitate the production of nationals' passports by DCIC, which requires information from the NIR, and the registration of aliens by NIRA, which requires information collected by DCIC.
- To ensure information sharing and the updating of the NIR, DCIC should have online access to the NIR. This will necessitate they fast-track the development of a third-party application program interface (API) to link to NIRA's TPI.

Key message: NIRA needs adequate information and communication technology (ICT) infrastructure and solutions, including a full disaster recovery and business continuity plan and a business resumption location so services can quickly resume in the event of a disaster.

- NIRA needs the budget to achieve a robust ICT infrastructure. This is outlined in the draft ICT strategic plan.
- Key stakeholders should be identified (e.g., UTL, NITA-U, etc.) and their roles and potential synergies should be explored to facilitate connectivity and achievement of a robust ICT infrastructure.
- Timely notification and feedback to clients throughout the ID application process is important. NIRA's USSD shortcode should continue to be employed for checking status of applications, and the potential for Short Message Service (SMS) notification in some cases should be explored.

Key Message: NIRA will need to undertake a detailed review of their business process workflows to improve efficiency and turnaround times.

 NIRA inherited a number of business processes on civil registration and registration of persons and needs to streamline their current process flow.

Key message: Registration, provision of identification, and authentication of refugees and asylum seekers is a critical function within the ID ecosystem. It is important for Government to explore linkages between the NIR and refugee registration systems in use (e.g., currently ProGres v4 and BIMS).

- NIRA is mandated to register all births and deaths occurring in Uganda, including refugee births and deaths.
- Furthermore, there is a need to link the refugee registration systems used by OPM with the NIR at NIRA to facilitate cross verification of applicants on either side and the inclusion of refugee births, marriages, and deaths in the civil register. This will involve the development and upgrade of systems to enable interlinkages.
- Efficiency gains could be realized by linking NIR to the refugee registration system through NIRA's TPI. The ongoing biometric verification exercise is an opportunity for the Government to develop a long-term strategy for refugee registration that will reinforce Uganda's progressive

- refugee management policies and provide coherence to the overall identification ecosystem of the country, including deduplication of citizen, foreign resident, and refugee identity records.
- Global learnings on effective integration of refugee populations into foundational ID systems should also be explored, including ensuring appropriate privacy and data protection guarantees.

Key message: National-level measures for cybersecurity are critical. Cybersecurity capacity building for technical and management staff, as well as other measures, are necessary to ensure the security of NIRA's data.

A national task force on cyberthreats should also be considered, to monitor threats on a continual basis and support upgrading of systems as necessary.

- NIRA should undertake regular, independent, and external cybersecurity audits of systems and processes.
- As enrollment and authentication processes move online, consider a Computer Emergency Response Team (CERT)/Security Operations Center (SOC) for NIRA and the ID ecosystem, aiming at threat intelligence, detection, defense, and breach mitigation.
- NIRA should develop a capacity building plan for technical staff to be exposed to cutting edge technologies and tools for real-time solutions, awareness of new threats, and enhanced technological exposure.
- NIRA should also develop a capacity building plan for top management, so that cybersecurity can be appropriately prioritized in budgets and procurement.

Key message: Continue collaboration with public and private sector stakeholders, as well as development partners (e.g., Plan, UNICEF, and the World Bank).

- NIRA is already collaborating with a number of public and private sector stakeholders; further stakeholders should be mapped to explore additional opportunities for collaboration.
- Development partners need to recognize that NIRA and the underlying law have created an integrated identification system, and assistance which does not support this degree of integration may be less suitable for Uganda (e.g., a business process mapping exercise that ignores the link between a birth record and the ID system and NIN.)

# 3.4. Improving Service Delivery

Key message: NIRA should continue to increase linkages to the TPI to meet demand for authentication and verification of identities by other stakeholders.

- The focus in the long-term needs to be on ensuring adequate full-time personnel are available to support the additional workload of adding stakeholders interested in authentication services. NIRA has clearly outlined its long-term staffing needs in its Strategic Plan and in the draft ICT strategic plan.
- In the short term, temporary staffing could be explored to fill gaps while recruitment for long-term staff is ongoing.

Key message: Functional users wishing to link to NIRA's TPI need to meet the technical requirements and be prepared to provide for change management of their own business processes.

 NIRA has a functioning TPI which already provides services to several functional users. NIRA should continue to clearly publicize its technical specifications to new stakeholders wishing to link to the TPI.

- Functional users wishing to access the TPI for authentication will need to be responsible for upgrading their systems to meet minimum technical specifications. This is primarily an issue for public sector partners as the private sector systems already meet the technical specifications.
- NITA-U should support a needs assessment of public sector agencies and provide technical support for upgrading their systems to meet the technical requirements. Priority MDA's for this support include the Ministries of Gender, Education, Health, and Agriculture, and JLOS.
- Functional users joining NIRA's TPI will need to provide for change management of their business processes.
- NIRA may wish to explore the experience of other countries, such as India, Tanzania, and South Africa, to draw some applicable lessons learned in expanding its TPI.

# 4. Conclusion and Next Steps

A robust and inclusive Identification system is a matter of national significance. It is a part of critical infrastructure that touches every aspect of a person's life, produces significant cost savings for the government, and improves service delivery in key sectors.

This ID4D assessment noted significant progress in Uganda in the area of registration, with almost 27 million registered (including nationals and nonnationals and with 15.7 million NID cards printed for citizens 16+ years old. No other country in Africa has issued first and new national ID cards so quickly.

In addition, first examples of successfully leveraging NIRA's data was noted, such as in cases of SIM card verification and identifying "ghost" public service employees, which resulted in an estimated in USh 24.6 billion savings for government in less than a year.

Even more efficiencies and cost savings can be achieved when a national ID register starts being used by other key stakeholders such as the Electoral Commission of Uganda, MDAs engaged in social protection, subsidy programs, education, health, land, agriculture, taxes, and business registration, as well as private sector partners including banks, mobile network operators, insurance companies, and credit reference bureaus.

However, the initial investments into national ID systems can be undermined unless strong attention is paid to improving civil registration and statistics. Integration of the national ID system and civil registration system is critical for a dynamic, sustainable, and accurate NIR. Special attention is needed to improve birth and death registration rates, which remain quite low. Focus on death registration is an urgent priority, to remove the deceased from the NIR and keep it up to date.

NIRA cannot do it alone and needs to build partnerships with key stakeholders to achieve continuous universal registration and coverage. This includes the Ministry of Health, Ministry of Local Government, community-based organizations, and development partners.

NIRA is currently understaffed, and although already receiving substantial resources from the Government, even more investments are needed. In addition, NIRA now needs a different set of skills to address the growing demand to access NIRA's data and continue to keep the date secure. Multiple government and private stakeholders are eager to develop services that require authentication and verification of identity against NIRA's database.

In addition, with more personal data collected and used, it is important for Uganda to ensure the proper legal and regulatory environment. The adoption of the Data Protection and Privacy Bill to safeguard personal information sharing needs to be expedited.

The recommendations made in the ID4D assessment are based on lessons learned from best practice in other countries, understanding Uganda's unique environment, and feedback resulting from consultations with key stakeholders. They are made in support of the objectives set out in NIRA's 3-year Strategic Plan 2017/18–2019/20 and to position NIRA for the next phase, to address the growing demand for authentication and verification services for other MDAs, and to improve financial inclusion and service delivery in key sectors.

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