THE STATE OF IDENTIFICATION SYSTEMS IN AFRICA



Country Briefs



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PREFACE

The global landscape of identification is changing rapidly. Technology is making it cheaper to identify people accurately, while the opportunities of the digital era are making it more important to be able to prove one's identity. Governments are spending billions on national identification systems which often co-exist with parallel systems established for a variety of purposes, including banking, voting, or transfers to the poor. The role of identification (ID) systems has become essential in areas ranging from financial inclusion, social protection, migration, and even coping with natural disasters.

International organizations have awakened to these developments and have begun to formulate their positions on identity and ID systems. In 2015, the objective of ensuring that everyone in the world has a legal identity was included in the United Nations' Sustainable Development Goals (SDG target 16.9). Two years later, the Principles on Identification for Sustainable Development: Towards the Digital Age were endorsed by most of the important players in the international community concerned with these issues.

But the real leadership is coming from governments in developing countries—a demand-driven phenomenon with huge implications. Developments have been most dramatic in Southeast Asia, where biometrically based, digital forms of ID have reached most of the adult population in Bangladesh, India, Indonesia, and Pakistan. The new systems are gradually being integrated into the delivery of public and private sector goods and services, especially in India and Pakistan. The Indian Aadhaar project is also notable for having separated the pure ID function of ensuring uniqueness and authentication from the determination of legal status—a paradigmatic shift that may have implications for many other countries.

The rollouts have not been without problems, and valid concerns have been expressed over the lack of personal data protection and potential exclusion. All four countries have a long way to go toward fully leveraging their new systems, and none have been able to integrate their national IDs with their civil registries. And only India has shown significant improvement in its birth registration rates. Nevertheless, a case can be made that the global identity gap has been

halved by these developments in Southeast Asia over the last decade.

As a result, the lion's share of the identity gap is now in Sub-Saharan Africa. Based on the World Bank's Identification for Development (ID4D) program's database, more than 40 percent of those lacking IDs in the world live in Africa. This overrepresentation is partly due to the fact that it is the region with the lowest birth registration rates; while these have risen impressively in some African countries, they remain low or have fallen in others. And while almost every country on the continent has opted to have a national ID system—most of them digital and making use of biometrics—some countries have not yet been able to implement their plans. Among those that have, only a handful have managed to enroll more than two-thirds of the eligible population.

There are promising signs that Africa may be entering a new phase in the development of its ID systems. The political commitment of African governments to improve birth registration rates as well as civil registration and vital statistics (CRVS) broadly is evidenced by the series of biennial ministerial-level meetings on the subject since 2012. More than a dozen countries have conducted a comprehensive CRVS assessment; many more will be completed in the near future. The list of countries digitizing their registries continues to grow.

National ID initiatives are under way in much of Africa. Some of these are greenfield projects as in Liberia and Malawi, while others involve better integration of the ID system into government programs such as cash transfers as in Mauritania. Lesotho and São Tomé and Príncipe have recently completed full integration of their civil registration and national ID systems. At the same time, regional bodies such as the Economic Community of West African Stats (ECOWAS) and the East African Community (EAC) have been developing plans and piloting programs for interoperability of ID systems to allow for free movement of people and better cross-border access to services.

Further evidence of the momentum in this field is the growth of the annual ID4Africa event (http://www.id4africa.com/), which has been held in a different African country in each of

PREFACE

the last three years. The event brings together government practitioners with private solution providers, independent experts and representatives from the key international organizations. Attendance has more than doubled since the first event. The conference has been a positive source of knowledge sharing and has helped engender a community of practice across the continent.

There is also evidence of more attention being given to the legal and institutional framework of ID systems. Recognizing the need to link the civil registration and national ID efforts at both a technical as well as an institutional level has led several countries to place the two functions under the same roof. Uganda is the most recent example. At the same time, many countries, especially in West Africa within the ECOWAS framework, have introduced personal data protection laws over the last few years.

The nature and scope of international support is also evolving. For the first time, the World Bank is planning to provide financial support and technical assistance to ID systems in Africa; this is an area in which it has had marginal involvement until now. In addition to engagements with specific countries, two regional projects with a view toward harmonization of standards and mutual recognition across borders are envisioned. Donor coordination on the topic has improved significantly, as evidenced by the recent endorsement by 18 international organizations of the common principles mentioned above.

The knowledge base related to ID systems in Africa has expanded dramatically. Applying a standardized assessment approach, the World Bank has financed more than 20 country reports and produced a synthesis report covering 17 of them. This publication draws from those reports as well as primary and secondary sources to provide a brief sketch of the foundational ID system in 48 African countries. Both are being released in 2017 at the ID4Africa conference in Windhoek, Namibia.

While encouraging, the expansion of our knowledge starts from a very low base, and huge gaps persist. The basic information included in the following country briefs is often incomplete and may reflect inaccuracies in secondary sources. In one country, Equatorial Guinea, there was insufficient information available from which to even produce a brief. In many

countries, one or more of the highlighted key indicators are missing, as can be seen at the bottom of the briefs.

The available data clarify the challenges that remain for ID systems in Africa. They confirm many of the findings reported in the 17-country report synthesis that is the companion piece to this volume, *The State of Identification Systems in Africa: A Synthesis of Country Assessments.* For birth registration, these include low birth registration rates; the prevalence of manual, paper-based civil registration processes in most countries; and the scarcity of infrastructure, including registration offices, in some countries. More than two-thirds of African countries for which data were available face the challenge of moving to a modern civil registration system.

For national IDs, low coverage was also an issue for most countries that had already begun implementation of new systems, especially larger countries. As a result, the weighted average for national ID coverage for the entire sample of countries for which data were available was only 28. (This figure is based on 85 percent of the total population of the countries covered in this volume.) Meanwhile, almost three-quarters of the countries covered have introduced digital IDs that use biometrics for deduplication to ensure uniqueness, and more are in the process of doing so. The contrast between the rapid adoption of digital, centralized processes for the NIDs and the ponderous shift from legacy paper based civil registration systems is stark.

The briefs also confirm that the gaps in the legal and institutional environment that were found in the subset of countries covered in the synthesis report are representative of the wider African context. A significant number of countries lack adequate personal data protection legislation. In the majority of countries, the agencies responsible for birth registration and national ID programs are separate. And very few countries—mostly those where the same agency is responsible for both programs—have managed to achieve the seamless lifetime ID process that is now considered best practice.

These indicators are in some ways the tip of the iceberg as far as the data that would be required to have an adequately informed understanding of the state of ID systems in Africa. The additional information needed falls into four categories.

For coverage, understanding who has access to IDs is clearly a priority. An effort to disaggregate this indicator



by age, sex, and income level is under way using the latest round of the Global Findex survey, which covers financial inclusion and is conducted in most developing countries every three years. After including additional questions on the possession of identity documents in this most recent round, the preliminary results should be available toward the end of 2017.

Another important element related to coverage is the situation of stateless individuals and how countries address their ID needs. Assessments to date have not focused on this, while organizations such as International Organization for Migration (IOM) and the United Nation's High Commission for Refugees (UNHCR) have amassed important cross-country information that can be used to round out the analysis and integrated into reforms of ID systems. This information will become more important in the context of regional initiatives where the determination of citizenship and movement across borders have consequences for statelessness.

■ Robustness of ID systems in terms of their ability to ensure uniqueness and to be able to authenticate identity is another area where more information is needed. The quality of and capacity to utilize technologies procured for these purposes vary widely but are not systematically documented. Moreover, the numerous cases of problems with vendors documented in the synthesis report suggests that this is an area that merits further investigation. The prevalence of expensive credentials whose features are rarely utilized—such as high-capacity chips and elaborate security features—indicate that there may be significant savings to be achieved in future implementations.

- A third area where there is little information available is the degree to which ID systems are being leveraged and integrated with public and private sector activities. Some countries provide authentication services to government programs and private sector entities such as banks and telecommunication providers. While these arrangements are uncommon in Africa at the moment, as coverage increases, integration can and should be achieved to reap the benefits of a good ID system and avoid duplication of costs.
- Finally, and related to the potential for linking databases through a unique identifier, the superficial information on the legal and regulatory environment that is now available is clearly insufficient for the purposes of benchmarking this particular aspect of an ID system. The mere existence of a personal data protection law does not imply that it is good or effective—or, even if it is, that it is likely to be applied. Other relevant legislation and regulations dealing with the legal application of digital transactions as well as cybersecurity will also need to be taken into account.

More data are needed so that countries can learn from each other and progress can be effectively measured and lessons learned. These data points will also be essential for research that aims to find a causal relationship between certain policy choices such as the fees charged for credentials or the minimum required infrastructure and attaining high enrollment. Empirical research can also help reveal the impact of variables exogenous to the identification system such as country scale and population density. Ultimately, the research will begin to quantify the impact on people's lives and the economy as a whole. In short, this volume represents a very small step toward increasing our understanding of the rapidly changing landscape of ID systems in Africa.

In the infographic displays for the country briefs, the following data are presented:

- Rate of birth registration for ages 0-5 from UNICEF
- Whether the civil registry is a paper-based or digital process



■ The ratio of birth registration centers per 50,000 population



- The percentage of eligible people who have been issued a national ID (NID) card
- Whether the NID is based on biometric deduplication or not



■ The ratio of NID enrollment centers per 50,000 people eligible for the NID



ANGOLA

Birth registration. Birth registration is mandatory in Angola and provided without charge by the Ministry of Justice and Human Rights. Birth registration must be completed within five days of childbirth. UNICEF found that the absence of a birth certificate may cause obstacles to secondary school enrollment, immunization, voting rights, the ability to secure a marriage license, or even proper burial after death. Angola has maintained a national birth registry since 1914. However, in the fmid-1990s, after three decades of civil war, the country had to cope with massive population displacement, with the result being that more than 70 percent of children were unregistered. The country's institutional birth rate is 45.8 percent. In 2013, the birth registration rate for children younger than five years of age was 56 percent, compared to 36 percent in 2001.

A 1994 case study of Angola revealed two parallel registration systems—one state-run that barely functioned at all, and an unofficial system that allowed people to buy fake documents such as birth certificates. In August 2001, the government launched the National Children's Registration Campaign, linking government ministries, churches, NGOs, the private sector, and UNICEF to facilitate birth registration. Around 230,000 children were registered in the first four months of the campaign. Angola's national free birth registration campaign has so far allowed over 1.8 million children to be registered.

Angola, or bilhete de identidade, has been available for a price of Kz 15 (US\$0.14). National IDs, issued by the Ministry of Justice and the National Directorate of Archives of Civil and Criminal Identification, are mandatory from the time the citizen reaches age 10. Angola has been issuing digital IDs to

its citizens since 2009, modeled on the U.S. permanent resident "green card" and valid for 10 years. The new ID system was designed to safeguard personal data while also storing substantial amounts of information directly on the card, including two thumb fingerprint biometrics and iris images, a birth certificate, and demographic data. The cards easily allow inspectors to match individuals to their biometrics.

The frequent lack of connectivity has made off-line authentication necessary, leading Angola to deploy mobile data capture and card issuance units. Data from these units are sent back to the center via secure satellite transmission or uploaded in batches. The mobile units enable collection and validation of an applicant's personal data, and control of the quality of the biometric images captured, to ensure reliable future ID verification.

The credential has strong visual security attributes, laser-engraving, and data encoding onto the optical security media, as well as machine-readable technology: bar code, machine-readable text, and optical security media. It also has sufficient capacity for all required demographic and biometric information. All of the information saved on the card can be accessed, and new biometrics or personal data can be added by authorized personnel to help prevent obsolescence and fraud.

The legislation covering personal data protection is the Lei da Protecção de Dados Pessoais. Angola does not yet have a data protection authority, however. As of 2014, Angola was in the process of introducing amendments to the existing legislation to further simplify the processes of birth registration and national ID cards issuance to all of its citizens.



BEN IN THE STATE OF THE STATE O

Public Security is responsible for civil registration in the Republic of Benin. Civil registration has been in place since 1933, and birth registration has been carried out since 1960. Birth registration is mandatory within 10 days of birth and is free of charge during that time. However, many parents have a cultural preference to name the child eight days after childbirth, leaving very little time to visit the official center, register the child's name, and obtain the birth certificates at no cost. Therefore, many birth declarations lack the child's name. In addition, rural areas do not have easy access to registration centers.

After the 10-day period, families must pay a birth registration fee of CFAF 18,353 (US\$30). Many individuals cannot pay this fee and therefore do not register their children even though birth certificates are necessary to enroll in school and to access health care and social services. Individuals without birth certificates cannot obtain identity cards, vote, open bank accounts, or obtain official travel documents (passport). UNICEF, USAID, the UN Population Fund, and Plan Benin have been working together to support government initiatives to increase birth registration. According to UNICEF, the institutional birth rate is 86.9 percent, and the birth registration rate for children younger than five is 80.2 percent. Only 4 in 10 registered children have birth certificates.

National ID. The Republic of Benin has been issuing national ID (NID) cards, or carte d'identitade, which are paper-based IDs, since 1992. The Beninese NID is issued only to citizens of the country. The Prefecture of the Mayor is responsible for issuing NIDs. NID applications can be submitted at the local town hall with copies of the supporting documents such as a birth certificate, proof of occupation, parental consent (minors), marriage certificate (couples),

etc., and a fee of CFAF 2,400 (US\$4.12). NIDs are mandatory and issued to individuals who are at least 18 years of age. The applicant must produce the original birth certificate, proof of occupation, marriage certificate, nationality certificate, and medical certificates.

Though Benin has a fairly basic NID, it conducted biometric enrollment to issue voter IDs to its citizens before the presidential and legislative election cycle in 2013. The country employed 3,215 mobile registration units to enroll citizens in remote regions. The mobile units captured and documented the enrollees' demographic data, fingerprints, and digital photos. These mobile units were equipped with a range case and a generator set that allowed them to operate normally in case of electricity shortage. This was particularly beneficial in places lacking the proper infrastructure. The mobile enrollment systems were small enough to fit into a suitcase and came equipped with laptop, camera, fingerprint scanner, printer, and signature pad. Elections in Benin are conducted on the basis of a permanent computerized voters list that contains the names of all citizens of voting age, along with their photographs.

In 2009, Benin adopted a data protection act, the Loi Portant Protection des Données à Caractère Personnel. The act outlined the standards and guidelines to be applied for personal data protection and established a data protection agency, the Commission Nationale de l'Informatique et des Libertés. In 2016, ECOWAS announced that Benin is set to begin issuing biometric cards for its citizens, which will facilitate travel within the region and remove the requirements for residence permits among ECOWAS nationals migrating to member states. These cards will not replace NID cards but will be circulated along with NIDs and promote the security of the migrants and data management within the subregion.

Birth registration REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE

BOTSWANA

Home Affairs is responsible for civil registration. Botswana introduced birth registration in 1908, making it mandatory in 2003. Botswanans are required by law to register all births and deaths, and to obtain a national registration number by the age of 16. The institutional birth rate is 99 percent, and the birth registration rate for children younger than five is 72.2 percent. The urban birth registration rate (77.5 percent) is only slightly higher than the rural birth registration rate (66.9 percent). The Housing and Population Census Report 2011 found that the 2010 national registration rate was 75 percent.

Birth registration is free of charge if registration is completed within 60 days of birth, while late registration can result in a fine of up to P 100 (US\$10) per month of default. All live births must be reported by the parent or guardian of the child and must be accompanied by a notice of birth from either the doctor (using Form CRB-2) or a *kgosi* for home births.* The World Health Organization report (2000–08) reveals that 94 percent of the births in Botswana were attended by skilled health personnel.

The birth certificate is a prerequisite for national registration and subsequent issuance of an identity card. Individuals without birth certificates must present an affidavit from a chief or headman in lieu of a birth certificate, and another affidavit from the chief or headman. Minors must be accompanied by parents, a guardian, or another relative, and present any records or other documentation such as school records or baptismal certificates in order to provide proof of identity.

In 2003, Botswana officially launched the Birth and Deaths Registration System, which linked to the automated National Identification System. In 2011, four pilot on-site registration centers were launched in two government hospitals and two

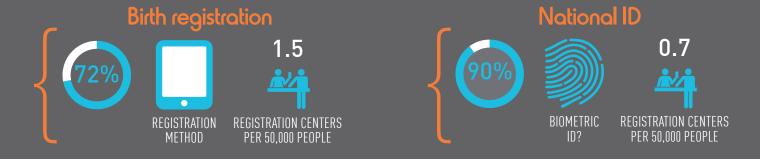
* A hereditary leader of a Botswana tribe.

private hospitals to ensure immediate registration of births and deaths. The initiative improves data integrity and security by assigning a unique birth registration number. Foreign nationals born in Botswana receive a seven-digit birth registration number, while children born to Botswanan citizens receive a nine-digit number. This number is used for the identity card that is mandatory for residents 16 and older. In addition, the number is necessary for school enrollment, employment, pensions, and other purposes.

Notional D. Botswana's national ID (NID) is also known as *omang*. Since 1988, the Department of Civil and National Registration, of the Ministry of Labour and Home Affairs, has issued the mandatory *omang* to citizens who are 16 or older free of charge. The NID must be obtained within 30 days of turning 16 or acquiring Botswanan citizenship. Failure to comply is an offense that may result in a late registration fee of P 650 (US\$65) or imprisonment up to six months.

Botswana's NID card displays a photograph of the card-holder, a nine-digit ID number, full name, date of birth, place of birth, and the cardholder's signature. The back of the card includes the holder's thumbprint, gender, eye color, place of application, the issuing authority's signature, and a bar code consisting of the card number and the cardholder's last name. The card is valid for 10 years, after which it can be renewed for a price of P 5 (US\$0.50). Lost or stolen card replacement is available for P 110 (US\$11). Citizens can apply for an NID at any civil and national registration office in the country, and will receive it in 8–14 days, depending on their distance from the production center in Gaborone.

Botswana plans to introduce an electronic NID card system to address some of the current security challenges, such as forgery and production delays. Botswana's Electronic Transactions Act, promulgated in 2014, includes provisions to establish a data protection agency that will supervise implementation and enforcement of the legislation.



BURKINA FASO

Administration and Decentralization is responsible for civil registration in Burkina Faso. Civil registration is governed by article 106 of the Code des Personnes et de la Famille (CPF), which states that every birth in Burkina Faso territory must be declared within two months. The government is presently revising the CPF to introduce digital civil registry.

Birth registration has been carried out since 1990 and is offered free of charge. There are 370 primary civil registration centers in the country. In order to facilitate access to birth registration, there are 1,200 secondary centers at communes, district town halls, health centers, maternity units, and pre-approved private clinics across the country. The institutional birth rate is 66.3 percent and the birth registration rate for children younger than five is 76.9 percent.

Individuals registering a birth must submit a birth registration form with the child's name, sex, age, and date of birth, as well as the names, address, occupations, and nationality of both parents. Birth registration also requires the details of the birth to be submitted by a witness, who can be physician, midwife, or a birth attendant. The registration forms must be accompanied by supporting documents such as proof of birth, proof of identity for parents, notarized statement of the witnesses, and the residential card of the parents. Children born in hospitals receive their birth certificates there. In the case of home births, the parents of the child must report the birth to the authorities of the village in which they reside, and the registration officer must issue a declaration/certificate.

According to a 2017 World Bank report, about 6 million Burkinabès—roughly 34 percent of the total population—lack birth certificates and cannot prove their identity. A birth certificate is essential in order to access social services and government programs, and only children with a birth certificate can register for the secondary education entry examination.

In 2012, Burkina Faso launched an integrated civil registration management system project, which is still in the pilot

phase. Additionally, a private initiative namely iCivil, which is also in the pilot phase, uses bubble code technology for unique birth registration. Prior to the 2015 elections, the government launched an initiative to issue free birth certificates in order to increase the number of people covered in the voter registry and strengthen the national identity database. As of December 2016, birth registration was said to be free, although there was a charge of CFAF 1,000 (US\$1.65) for a copy of a birth certificate.

Birth certificates include a number containing personal information. This number is different from that issued for the national ID (NID) and there is no link between the two databases.

National D. The National Identification Office (NIO) is the government agency responsible for NID cards, which it has issued since 1989. Law 005-2001/AN of May 16, 2001, Portant Institution d'une Carte Nationale d'Identité Burkinabé, governs the NIO. The NID card is known as the carte nationale d'identité Burkinabé (CNIB). Applications to acquire CNIBs must be submitted at a centre de collecte des données and are processed at the two centers of card production in Ouagadougou and Bobo-Dioulasso. Applicants must submit one of the following documents: a birth certificate, marriage certificate, or citizenship certificate. NID enrollment is mandatory for all Burkinabés over 15 years of age, and the CNIB card is valid for 10 years.

Prior to Burkina Faso's December 2012 parliamentary and municipal elections, the country's Independent National Electoral Commission (CENI) conducted biometric registration of voters, generating a biometrically verified national electoral registry. NIDs are required for electoral registration and voting. CENI collaborated with the WebAFIS deduplication service to enroll 4.4 million citizens in four weeks, and cleared 45,000 duplicates.

According to a recent World Bank report, there are 370 data collection centers and, as of December 2015, 7.2 million individuals—73.3 percent of the eligible population—have an NID.

Birth registration 4.3 REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID 0.7 REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE REGISTRATION RATE Notional ID REGISTRATION BIOMETRIC REGISTRATION CENTERS PER 50,000 PEOPLE

BURUNDI

Birth registration. The Vital Statistics Records, Officer de l'Etat is responsible for birth registration in Burundi. Birth registration has been carried out since 1980, and civil registration has been documented since 1922. Birth registration must be carried out within six months of birth, and if the child is registered within two weeks, the process is free. However, beyond the given period it would cost FBu 30,000 (US\$21.4). Birth certificates are to be obtained from the community administrator of the individual's commune of birth. In 2012, it was estimated that 1.5 million children in Burundi did not have birth certificates which led to a nationwide effort to register 170,000 children under 18. The main barriers to obtaining birth certificate included lack of knowledge, local customs in areas, children born to single mothers, or into polygamous marriages fall through the cracks, distance to the registration office, corruption, and the penalty associated with late registration.

Birth certificates can be obtained by submitting an application at the civil registry at the individual's commune of birth. The application must be submitted with proof of identification of the parent or the applicant, along with the name of the applicant, DOB, city, and province of birth. The officials add the date, name, and signature of the certifying registrar/acting registrar/secretary along with the official seal. Unregistered children in Burundi have more difficulties in accessing free medical care provided by the government and some sources suggest that they are also more vulnerable to being trafficked, forced into child labor and underage marriage.

National ID. The Ministry of Interior is responsible for issuing national IDs in Burundi. The NIDs are

paper-based IDs and have been issued since 1980. In 2013, Burundi launched a pilot program to issue machine-readable national identity cards to individuals who are 16 and older for a price of FBu 6,000 (US\$3.83). The cost of this initiative was estimated to be FBu 224 million and proposed timeline from 2013 to 2017). The new electronic NID card contains the cardholder's name, sex, DOB, province, commune, address, parent's names, and children's name. In principle, it could be used for medical assistance, travel document, service number for police/military. It also contains bank account details, signature, education, marital status, medical assistance information, fingerprint and blood group. To obtain an NID individuals need to submit supporting documents such as the birth certificate, two recent passport photos, identification documents, medical assistance card, affiliation card for Mutuelle de la Fonction Publique. Social security national institute card, employment card, court clearance certificate, passport, driving license, military/police card and poling cards are also accepted.

The current status of this initiative is unclear. However, in 2014, the Independent National Electoral Commission (CENI) of Burundi announced that Burundians would no longer need the National biometric ID card to register for general elections in 2015. Burundians have previously used baptismal certificates, driving license and passport to register to vote. In 2010, the United Nation's High Commission for Refugees issued 1 million national identity cards (paper based) to Burundian citizens old enough to vote by the UNDP, to establish an inclusive electoral process for marginalized population and women who could not afford the cost associated with NID.



CABO VERDE

Registry, Notary and Identification, in the Ministry of Justice, is responsible for birth registration in the Republic of Cabo Verde. Birth registration has been in place since 1967. Parents must register their child within 30 days of birth. Cabo Verde computerized its entire CRVS system from 2007 to 2008. The modernized system facilitates registration of births in remote areas and enables the issuance of birth certificates online. Digital birth certificates can be requested on Cabo Verde's online portal, known as the Porton di In Island.

To submit an in-person application for a birth certificate, an applicant must visit one the registration offices. The applicant must provide the name of the child, date of birth, the place of birth, and the names of the parents, along with supporting documents. The officials affix the date of registration, name, and signature of the certifying registrar, acting registrar, or secretary, and attest with the official seal.

Late birth registration after 14 years of age incurs a penalty of CVEsc 258 (US\$2.64). Application requests for late birth registration must be made by either the parents, a person with special power of attorney, the head of the hospital where the birth occurred, the doctor or midwife present at the birth, or a witness who was present at the birth on behalf of the applicant. Cabo Verde has the highest birth registration rate in West and Central Africa. According to UNICEF, the institutional birth rate is 75.6 percent and the birth registration rate for children under five years of age is 91.4 percent.

National D. The National System for Identification and Civil Authentication, Núcleo Operacional para Sociedade de Informação (NOSi), is responsible for civil identification in Cabo Verde. The National Identification Card (CNI) is the main identification document in Cabo Verde. The

country's centralized identification and management system serve as a platform for the electoral system. The CNI contains the cardholder's photograph, signature, and fingerprints. All residents of Cabo Verde are eligible to obtain the CNI. The parents or guardians of minor applicants can help acquire CNIs for them. CNI applications must be submitted to either the National Archives of Civil and Criminal Identification or the Delegations of Registration Services, Notary Identification, with a fee CVEsc 550 (US\$5.46) for a normal application and CVEsc 655 (US\$6.50) for expedited service. The processing time is 24 hours for a standard application and immediate delivery for expedited applications. Foreigners who live in Cabo Verde can also obtain CNI cards through the same process.

A biometric enrollment system was implemented to issue CNIs and voter ID cards. The system has a customized AFIS server platform to process and inspect digital fingerprints, complete the registration, centralize the information, and validate biometric data. The country has introduced mobile biometric enrollment kits in all major hospitals, where personnel receive ongoing training in use of the equipment. NOSi has computerized all CRVS events. All births, death, paternal affiliation, and marriage certificates have been documented and digitized, and biometric information (finger-prints and ICAO-compliant photo) was collected and stored.

The Data Protection Legislation of Cabo Verde is known as the Regime Jurídico Geral de Protecção de Dados Pessoais a Pessoas Singulares (Data Protection General Legal Framework, 2001). This data protection act establishes a notification requirement for data processing operations and transfers of personal data outside of Cabo Verde. However, the country has yet to set up a data protection agency or regulatory body.

Birth registration REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE

CAMEROON

Registration, or Bureau Nationale de l'Etat Civil (BUNEC), is responsible for civil registration in Cameroon. Cameroon has carried out civil registration since 1917, and birth registration since 1968. Ordinance No. 81-June governs the legal registration of birth, marriage, and death.*

Birth registration is free of charge when the child is registered within the legal time frame of 30 days. This short time interval is one of the main barriers to birth registration. According to UNICEF (2013), the institutional birth rate is 61.2 percent. The birth registration rate of 61.4 percent is a decline from recent years.

In addition to cost, other barriers to birth registration in Cameroon include lack of awareness, the centralized process, the time taken to complete registration, and poor management of registration facilities. Birth certificates can be obtained from authorized hospitals, health centers, and local authorities, and usually take a week or two to process.

To obtain a birth certificate parents must present the application with supporting documents—hospital registration certificate, baptismal certificate or notification issued by village executive officers, both parents' proof of Cameroon nationality, valid passports or birth certificates of parents, and proof of residential status. Individuals without a birth certificate cannot register their marriage, vote, obtain formal employment, or register their own children.

The Universal Birth Registration campaign aims to provide children in Cameroon an official identity and enable easy

access to education and health services, while also preventing child labor, child marriage, and child trafficking. Cameroon used radio campaigns to promote birth registration and raise public awareness, as most rural births happen at home and birth certificates are issued only in hospitals. Baka children are significantly underrepresented in Cameroon's birth registry and are more likely to be excluded from the health and education services that require a birth certificate

and Defense, or Délégation Générale à la Sûreté Nationale, is responsible for issuing national IDs (NIDs) in Cameroon. Since 1964, Cameroon has been issuing a paper ID card, the carde d'identité national (CNI), as mandated by Decree No. 64/DF/394 of 29 September. The CNI contains user data in English and French, including the following information: name, date and place of birth, marital status, photo, thumb-print, signature, a card number, and a stamp and signature from the issuing official. The CNI is valid for 10 years and is a necessary identity credential to vote in Cameroon. In 2011, ahead of its presidential elections, Cameroon reduced the cost of the NID from CFAF 7,000 to CFAF 2,800 (US\$11.45 to US\$4.58) to encourage more voters to participate in the elections. Later, the entire fee was waived.

There have been multiple identity programs in Cameroon but none have been sustainable or robust. In 1994, the government of Cameroon worked with an industry partner to complete enrollment, and to produce and issue NID cards and residence permits. A biometric recognition system was implemented in 2005. In 2008, the NID was upgraded to include a color photo and finger biometric of the cardholder, along with additional security features. Cameroon began issuing an electronic NID in 2013. These electronic IDs were meant to be used for multiple electronic services such as civil identification and health and social services.

According to the World Bank, the recent identification initiative was not successful. The government of Cameroon



^{*} There were several colonial identification and registration initiatives. In 1968, a unified regime for civil registration was introduced through law No. 68/LF-2 of 11 June. In 1972, civil registration came under Ordinance No. 81/002 of June 26, 1981, which was further complemented by the Decree of 17 August 1987, providing for the modalities for the creation and the function of special civil registration centers.

CAMEROON

is said to have terminated its contract with the ID vendor in 2014. Poor service delivery of the CNI has led to widespread identity fraud and proliferation of counterfeit IDs. As of early 2017, Cameroon was in the process of reviving its national identification program with a new vendor.

In 2012, Cameroon began to implement biometric voter registration to ensure transparency and credibility in its

upcoming presidential election. The government completed a biometric voter registration campaign involving 1,200 electoral kits and 2,400 staff nationwide. The voter data were compiled and verified in regional centers, and later transferred to a central production site (Bastos-Yaounde). However, the voter database is not harmonized with the national identification database. Cameroon does not have any legislation addressing personal data protection.

CENTRAL AFRICAN REPUBLIC

Birth registration. Central Africa Republic (CAR) has been registering births since 1961. Birth registration is mandatory and costs from CFAF 500 (US\$0.81) to CFAF 3,500 (US\$5.70). However, the present civil registration system is highly dysfunctional due to ongoing conflicts. The birth registration rate declined from 72.5 percent in 2002 to 61 percent in 2010. The current figure is probably lower due to the 2013 conflict and the ensuing political crisis. Registration centers are vandalized regularly, resulting in a reliance on mobile registration offices.

According to a UNICEF report, children born in CAR after March 2013 have not been registered or issued birth certificates, so that approximately 30,000 children are unregistered in the capital city of Bangui alone. In order to address this, the CAR government set up a collaborative platform encompassing all partners supporting birth registration, in order to coordinate. Working with UNICEF, CAR initiated efforts to enroll children who could not be registered until after the conflict. In July 2014, UNICEF launched an initial 10-day campaign that registered 30,000 children in Bangui and the neighboring towns of Begoua and Bimbo.

Birth certificates are crucial, especially in conflict-prone areas such as CAR, as they protect children from child labor, child trafficking, illegal intercountry adoption, and conscription or recruitment into the armed forces. Birth certificates also help trace the family in case children become lost during conflicts, and help children to be repatriated if they become refugees. There have been disparities in birth registration rates among ethnic communities. For example, the birth registration rate is 77 percent among the Zande/Nzakara, but only 49 percent among Sara.

ID. The Ministry of Public Security, Immigration, and Emigration is responsible for issuing national IDs (NIDs). NIDs are paper-based and issued free of charge. CAR does not have any legislation for protection of personal data. Recently, there has been discussion regarding a partnership between the government and a private firm to launch biometric identification and delivery of electronic IDs to all Central African Republicans. CAR has had biometric passports since 2012, in compliance with the Monetary and Economic Union of Central African States requirements.





Politiques et de l'Etat Civil (DAPEC), Ministère de l'Administration du Territoire, is responsible for birth registration in Chad. The local civil registration bureaus are housed within city halls and district administrative offices. Civil registration in Chad dates back to 1961. In 2013, Chad adopted Law 008/PR/2013, a comprehensive civil registration law that set the current 30-day time limit for birth registration. Birth certificates are free when registration is carried out within that time. However, only 6–9 percent of children are registered in the first 30 days. According to UNICEF (2013), the institutional birth rate is 15.8 percent, and the birth registration rate for children younger than five is 15.7 percent.

One of the main barriers for birth registration in Chad is that parents have no incentive or motivation to register the birth of their child. In order to address this, the prime minister recently signed Executive Order NO 660/PR/PM/MATSP/2015, which makes civil registration mandatory. School enrollment can be done without a birth certificate, although after sixth grade children need a birth certificate to obtain a secondary school leaving certificate and continue their education. Applications for late birth certificates require testimony from four individuals who can guarantee the applicant's biographic data. There is also a fee of CFAF 2,000–5,000 (US\$3.27–US\$8.17).

The country lacks centralized archives of civil registration information. As a result, civil registration records are scattered across the country in thousands of bureaus. In May 2015, Chad's Regional Authority of the Batha Region, the European Union, and UNICEF Chad launched a program called "Promoting Decentralization and Civil Registration." The goal of this program is to strengthen civil registration by engaging civil society organizations, elected officials, village chiefs, and religious authorities in explaining the benefits of birth registration to local communities.

National ID. The Ministry of Interior and Public Security, Direction de l'Identité Civile, is responsible for national IDs (NIDs). Chad has had a national identity system since 2002 and issues NIDs to Chadian nationals over 18 years of age. The NID card costs CFAF 4,000 (US\$6.60), though applicants also face indirect costs of transportation and time taken from work. Despite the relatively large number of civil registration centers, there are fewer than 20 NID enrollment centers throughout the country, which makes it even more difficult to enroll. The NID card is valid for 10 years. About 3 to 4 million cards have been issued, covering 30–40 percent of the population.

The NID card register, maintained since 2002, is a centralized database that contains biographic data such as the family name, name, data of birth, place of birth, father's name, mother's name, sex, profession, address, and biometric data of the cardholders. The registry also contains scanned copies of foundational, or "breeder," documents and other NID details.

There are two generation of NIDs in circulation. The first generation cards were issued from 2002 to 2012 and capture two fingerprints; second generation cards, issued after 2012, capture four fingerprints. Both cards contain a 2D bar code that encodes user information. The first generation card is a simple laminated card, and the second has a few extra security features, such as a hologram, high resolution printing, and dense 2D bar code. The second generation card also contains a control code to track the stock on which the card was produced, in order to help eliminate counterfeit cards. The NID number is assigned for life and is the same on whichever card the user is carrying.

According to a World Bank report, Chad has a plethora of identity credentials. The country recently completed a biometric census of the adult population, which functions as

Birth registration 4.6 REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE REGISTRATION RATE REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID 7.9 REGISTRATION BIOMETRIC REGISTRATION CENTERS PER 50,000 PEOPLE



an electronic identity system. This is different from the NID and has almost 100 percent coverage. Over a period of 45 days, the country enrolled 6 million adults 18 years of age and older, using thousands of mobile biometric centers. As

noted, NIDs have only 40 percent coverage at best. These two systems have not been harmonized and their databases are not interoperable. Chad does not have data protection and data privacy legislation.

COMOROS

Birth registration. The Prefecture du Centre is the government organization responsible for birth registration in Comoros. According to UNICEF, the institutional birth rate is 76.1 percent and the birth registration rate for children younger than five is 88 percent. Comoros promulgated a new law that decentralized the birth registration procedure in 2011–2012, in order to improve access to civil registration and harmonize birth certificates for the three islands of Comoros. The country aspires to achieve 100 percent birth registration.

Notional D. The Ministry of Interior is responsible for issuing national IDs (NIDs). Comoros has issued NIDs since 2010. The country's NID card is a 2D bar code card with biometric information for authentication and is valid for 10 years. An applicant for a NID must produce a birth certificate or court transcript attesting to the birth. In 1987, Comoros passed an act providing guidelines for the NID card. The Assembly of the Union of the Comoros subsequently mandated a biometric NID card in 2014, under the Law No.14-023/AU. This law declares that there will be a digital identification card with biometrics, and that the cardholder will be assigned a unique national identity number.

NIDs are mandatory and issued to Comorian nationals who are 15 years of age and older. The Comorian NID contains the holder's name, DOB, place of birth, card expiration date,

a digital photograph, NID number, card number, height, and sex on the front of the card. The back of the card contains the profession, home address, date of issue, signature, bar code, and name and signature of the issuing authority. The NID is valid for 10 years, after which it must be renewed. Failure to obtain or renew a NID results in a fine of CF 5,000 (US\$10.87), and repeat offenders face a fine that is doubled.

The applicant must visit the local enrollment center (a police station with an enrollment kiosk), and submit a request for the NID card as well as seek biometric enrollment and authentication, capture all 10 fingerprints, take a digital photograph, and provide personal data. The card also contains a color photo and a unique bar code with user information to prevent duplication or forgery.

The NID card is strictly personal and cannot be lent to friends or family. Misuse of the NID is an offense punishable under the Penal Code relating to forgery and other alterations. Lost NIDs must be reported to the police office or the nearest gendarmerie brigade as quickly as possible. The individual must provide a proof of loss statement in order to receive a duplicate card. Before the 2014 elections, Comoros created a biometric electoral file to ensure transparency of the electoral system. Comoros does not have any legislation addressing personal data protection, nor does it have a data protection agency.



DEM. REPUBLIC OF CONGO

the Ministry of Justice and Human Rights are the two ministries responsible for the management and overview of civil registration. The Ministry of Interior has administrative control and establishes acts for birth, marriage, and death registration. The Ministry of Justice facilitates judicial supervision, and prints and distributes records of civil status certificates in all offices across the country. The Directorate of Population, Ministry of Interior, controls 1,202 main offices of civil status and population, and through the Law on the Family, the code has created 3,677 civil status offices (1,006 are already operational).

Civil registration has been carried out since 1908. The country's Family Code, Article 82, stipulates that all births, marriages, and deaths must be documented. Registration of the child's birth at the registry office is free within 90 days after birth. Beyond that deadline, applicants are required by law to obtain a court judgment from the juvenile court if the person is less than 18 years and from the high court if a person is over 18 years.

According to UNICEF, the institutional birth rate is 74.9 percent, and the birth registration rate below five years is 27.8 percent. Birth registration facilitates access to social and other basic services. The Congolese birth certificate is issued free of charge if the child is registered within 30 days of birth. Beyond the time limit, it costs CGF 400 (US\$0.43). In 2013, there were 8 million unregistered children. The government of the Democratic Republic of Congo collaborated with UNICEF to pilot several efforts to increase birth registration.

The main barriers to birth registration include lack of adequate budget allocation, lack of coordination and collaboration between ministries involved—at the national level, and at the provincial level. The main reasons cited by parents

for low birth registration include lack of awareness about the importance of birth registration, costs associated with obtaining a birth certificate, and the distance between state offices and residential areas.

A birth certificate helps an individual enter school, vote, enter civil services, register marriage, qualify for professional licenses, drive a motor vehicle and claim benefits. Place of birth captured in the birth record helps establish citizenship for obtaining a passport, provide the basis for immigration and naturalization claims, allows one to obtain an exemption from alien restriction.

National D. The National Identification Population Office (ONIP), Ministry of Interior, is responsible for issuing national IDs. The ONIP was established by a Presidential Decree No.011/48 and Ordinance No. 15/015 signed in 2013. Although the Ministry of Interior set out to issue national ID cards in 2014, to this date this has not been possible. The main form of identification is the paper, voter ID which has no security features. As a result, there have been efforts by private parties such as banks to issue their own, robust forms of identification. The Democratic Republic of Congo does not have legislation regarding personal data protection.

The Democratic Republic of Congo has a high influx of refugees, this prompted the United Nation's High Commission for Refugees (UNHCR), in collaboration with National Commission for Refugees to issue ID cards in 2010. The refugee ID card is equivalent to a resident permit; it provides cardholders the same rights and privileges as a Congolese citizen—the right to work, education, access to health care, and freedom of movement in the country. In April 2015, the UNHCR began biometric registration of 245,000 Rwandan refugees in the Democratic Republic of Congo; the process involved capturing fingerprints, iris biometrics, and facial recognition.

Birth registration 1.6 REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE National ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE National ID REGISTRATION BIOMETRIC REGISTRATION CENTERS PER 50,000 PEOPLE

REPUBLIC OF CONGO

Birth registration. The Civil Registry Offices are responsible for civil registration in Congo. Birth registration is mandatory and is free of charge if the child is registered within 30 days of birth. According to UNICEF (2013), the institutional birth rate is 91.5 percent and the birth registration rate of children below five years of age is 91 percent. UNICEF reports also reveal that 65 percent of Baka or Mbuti (usually referred to as pygmies) children between ages 12 and 15 do not attend school since they do not have birth certificates and face many hurdles in obtaining birth certificates. UNICEF, in partnership with the UN Indigenous Peoples Partnership, initiated efforts to send mobile teams to register births and issue birth certificates for indigenous children in remote areas. Congo also has a high influx of refugees, mostly from Rwanda. Refugee children do not have access to school or health care due to the absence of identification.

Congolese were introduced in 2007, and the NIDs were re-issued in 2010. Local experts helped establish personalization centers, and police officers received training in handling data and machines. The Ministry of Interior is responsible for issuing NIDs in Congo. NIDs are issued to individuals who are 16 years or older, free of charge. Congo has an electronic national registry and database to store information about its biometric ID card, e-passport, resident card, police card, voter registration, and electronic access control. The biometric database center, including AFIS, serves as a base for a variety of government ID applications, including census, elections and ID documents, ePassports, driver's licenses, and health cards. Congo does not have any privacy legislation about personal data protection.



CÔTE D'IVOIRE

Birth registration. The Direction Générale de l'Administration du Territoire, under the Office National de l'Identification (ONI), or National Identification Office. of the Côte d'Ivoire Ministry of Interior (Internal Security), is responsible for civil registration and national identification. Birth registration in Côte d'Ivoire has been mandatory since 1964 and must be completed within three months of birth. Côte d'Ivoire has 427 civil registration bureaus across the country. The birth registration rate for children five years of age is 55 percent, and is higher in urban areas (79 percent) than in rural areas (41 percent). The registration process is free of charge, but acquiring a copy of the birth registration certificate requires an administrative stamp that costs CFAF 500 (US\$0.80). According to a 2013 UNICEF report, an estimated 2.8 million children were not registered at birth, and three out of 10 rural births go undeclared. There have been efforts to digitize historical records as well as new registrations since 2016

the national ID (NID) known as the *carte nationale d'identité*. The ONI was established in February 2001 via Decree No. 2001-103, which charged the office with implementation of civil registration policy, identification of the population living in Côte d'Ivoire, and monitoring immigration and emigration. Cote d'Ivoire has had a national ID system since the country gained its independence in 1960.

Côte d'Ivoire has two identification credentials: a certificate of nationality and the NID card. These two credentials are not interchangeable. The certificate of nationality, which is a prerequisite for obtaining the NID, must be issued and attested by a judge at a local court. The applicant must submit a copy of his or her birth certificate or a copy of a parent's birth registration document. The cost of obtaining a certificate of nationality is CFAF 3150 (US\$5.10). There is no electronic register or centralized database of the nationality certificates. Instead, the courts that issue these certificates maintain an archive.

The United Nations High Commissioner for Refugees (UNHCR) estimates that 700,000 people who are stateless or of undetermined nationality live in Côte d'Ivoire. Stateless individuals can encounter numerous obstacles throughout their lives, finding it difficult to enroll in school, open a bank account, travel across borders, obtain a marriage certificate, or register their children. Following independence in 1960, changes in the legal code deterred immigrants from acquiring Ivorian citizenship. Both the civil war in 2002 and the post-electoral crisis that ensued from 2010 to 2012, in which the civil registries and documents were destroyed, made it difficult for some individuals to prove identity.

The NID was established after the Ouagadougou Peace Accord was signed in March 2007. Between August 2008 and April 2009, the ONI registered and gave free NID cards to 6 million individuals over 16 years of age. However, this process was halted in 2010 and did not resume until 2014. The ONI provides resident aliens with a document similar to the NID.

The NID costs the applicant CFAF 5,000 (US\$8.33), though the expenses associated with obtaining associated documents can result in total costs of CFAF 10,000–13,000 (US\$16.66–US\$21.65). NID applicants must provide 10 fingerprints and a digital photograph they are then deduplicated using an AFIS process to validate uniqueness. It takes one to three months to issue the NID card after the application process is complete. Côte d'Ivoire has 150 enrollment centers throughout the country and conducts mobile enrollment campaigns as well.

The NID card contains identity card number, name, family name, photo, date of birth, place of birth, gender, height, date of issuance, and date of expiration on the front, and residential address, profession, signature, name of father and mother, their dates of births, and the serial number of the card stock on the back. The card also includes 10 digits that encode the center at which the cardholder applied,

Birth registration O.8 REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID 1.8 REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE REGISTRATION RATE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE

CÔTE D'IVOIRE

and a sequential number. This identification number is not a unique identifier that can link government databases. The NID card has not been used for electronic authentication, and there is no procedure to update information. Cardholders must wait until the cards expire, 10 years after issuance, to make any changes.

Côte d'Ivoire has another interesting biometric identification system for the almost 4 million people covered by Caisse Nationale d'Assurance Maladie, the national health insurance fund. This project aspires to ensure efficient operation

of the fund's reimbursement system for its members, and to provide the country with a national population register and family register. The ID card is a 2D bar code card that contains the holder's biometric (two index fingers) and biographic information, includes a range of security features (embossing, guilloches, microtext, and fluorescent UV ink), and provides a mechanism for authentication.

Côte d'Ivoire's Law No. 2013-450, adopted in late 2013, protects personally identifying information under the Regulatory Authority for Telecommunications (Autorité de Régulation des télécommunications Tic de Côte d'Ivoire).

DJIBOUTI

Birth registration. Djibouti's État Civil is responsible for civil registration in communities throughout the country. Civil registration has been carried out since 1977. Birth registration is mandatory and offered free of charge within the child's first 30 days. In addition to the application form, registration requires a certificate of birth that includes the place, date, and time of birth. This information typically comes from the clinic at which the birth took place. All children, whether born of married or unmarried parents, have equal status. The institutional birth rate is 87.4 percent, and the birth registration rate for children younger than five years of age is 91 percent.

National D. The Direction Générale de la Population et de la Famille (DGPF), within the Ministry of Interior, is responsible for issuing national ID (NID) cards, known as the carte d'identification nationale numérique. Djibouti does not have a robust identification system. Instead, it has a few separate, insular identification programs, with their own databases. These databases are fragmented and are neither interoperable nor harmonized.

Before 2012, the NID was a laminated piece of paper with no security features. It was issued free of charge to everyone 18 years of age and older. The DGPF database contains 250,000

identity records of residents (both citizens and foreigners) from the old identification system. In 2012, the DGPF introduced a new national identity card, which costs about DF 2,498 (US\$14) per person. Because this was expensive, few individuals applied for the card. The country sought to issue electronic cards to 250,000–300,000 individuals, but a World Bank report found that only 9,000 had been issued as of 2014.

The card had a few security features; it was a laser-engraved, polycarbonate card, but it did not have any digital biometrics despite the fact that 10 inked fingerprints were captured on paper, scanned, digitized, and stored in the database. The Commission Identifiant Unique is working toward addressing the issue of a unique identity number.

Besides this NID, the Department of Police also issues identity cards. The department has 1 million cards containing historical police and immigration records, 50,000 records of passport applicants, and information regarding foreigners who are presently living in Djibouti. The documents are handwritten paper records and are not digitized. The social safety net programs under the Secretary of State for National Solidarity have registered about 17,000 households that participated in food ration coupon programs. Djibouti does not have legislation protecting personal data.



ERITREA

Office, in the Ministry of Information, is responsible for civil registration in Eritrea. Birth registration has been carried out since 1939, and is mandatory. Children must be registered within 90 days of birth in order to receive a birth certificate. Issuance of a birth certificate after 90 days requires a government-issued clearance paper to confirm parenthood and date of birth. According to UNICEF, the institutional birth rate is 26.4 percent, and the birth registration rate for children younger than five is 15 percent. UNICEF notes that birth registration reports were used to identify children for forced conscription which, along with fear of under-age recruitment, may result in reluctance to register children. However, there are also claims that there is no evidence of under-age recruitment.

The Public Registration Office issues birth certificates in either Tigrinya or English. The applicant must submit proof of birth (hospital birth record, baptismal certificate, and vaccination certificate), a statement from witnesses familiar with the birth, and the residential card of the parents. In addition, applicants must submit a copy of the birth record from their administrative area, a copy of the applicant's residential card, and copies of the parents' identity cards. Individuals living abroad must also present the 2 percent income tax clearance receipt, national identity cards, and passports. In case of home births, a witness at the birth (the attending physician, midwife, birth attendant, or others) must produce a notarized statement in addition to the supporting documents required for institutional births.

ID. The Public Registration Office issues national IDs. Citizens must appeal to their local government *Mmhdar* to obtain national IDs, which are required of Eritrean citizens over 18 years of age. National ID cards have no expiration date or cost, and are issued only in Arabic and Tigrinya.

The Eritrean NID card is a laminated card, with the cardholder's photograph and a seven-digit identity number. It also contains biographic and demographic information. In 2010, Eritrea began issuing electronic ID cards with a bar code, which will replace the old paper IDs. In an effort to curb illegal migration, false documentation, and forged paper IDs, the government announced that it will retire ID cards issued before 1993, the year Eritrea declared independence. It is not clear how the current system is migrating to the electronic cards as the paper IDs are phased out. There is proof of an underground market for fraudulent Eritrean ID cards in refugee communities, especially in Ethiopia, Sudan, Tel Aviv, Italy, Kenya, Egypt, and South Africa.* Eritrea does not have any legislation pertaining to personal data protection.



^{*} http://www.justice.gov/sites/default/files/eoir/ legacy/2014/10/01/ERI104939.E.pdf

ETHIOPIA

Birth registration. The civil registration system in Ethiopia is one of the world's most recent. Although the original legislation relating to civil registration dates back to 1960 in the form of Ethiopia's Civil Code, the relevant provisions were never enacted. The Family Act in 2000 was the first legislation to acknowledge marriages and divorces that had been issued by municipalities and towns. Finally, in August 2012, Ethiopia issued the Registration of Vital Events and National Identity Card Proclamation No. 760/2012, covering registration of vital events in the country (Federal Negarit Gazeta 2012).

Regulation No. 278/2012 to Provide for the Establishment of the Vital Events Registration Agency, established the following national bodies in December 2012: the Vital Events Council, the Board of Management, and the Vital Events Registration Agency (VERA) (Federal Negarit Gazeta 2012b). The Vital Events Council (established by Articles 8 and 9) is the highest authority on matters of civil registration. The council is chaired by the minister of Justice, with additional members from specified government entities.* VERA's director general is the secretary of the council. The Board of Management provides oversight to VERA; its members are also designated by the government. VERA itself is ostensibly an autonomous agency mandated to direct, coordinate, and support the registration of vital events nationally as well as to maintain records of these events. It falls under the jurisdiction of the Ministry of Justice.

Ethiopia is divided into nine administrative regions and two city administrations; the regions and cities are further

* These include the Ministry of Justice; the Ministry of Finance and Economic Development; the Ministry of Health; the Ministry of Education; the Ministry of Urban Development and Construction; the Ministry of Foreign Affairs; the Ministry of Defense; the Ministry of Women, Children, and Youth; the Ministry of Federal Affairs; the Government Communications Affairs Office; the National Intelligence and Security Service; and the City Administrations of Addis Ababa and Dire Dawa.

subdivided into 73 zones, which include 741 woredas. The kebele is the lowest tier administrative unit. There are currently 16,475 kebeles in Ethiopia, an average of 20 per woreda. Of these, 1,618 kebeles are urban. Kebeles are further subdivided into smaller entities known as katanas. Every kebele, whether rural or urban, has its own kebele office. A typical kebele has 5,000–12,000 residents, who elect a cabinet for administrative purposes.

Currently, most of the government *kebele* offices are authorized to complete registration of vital events and issue the corresponding certificates. These offices then transmit their completed records to the corresponding *woreda* VERA (RVERA) civil status office. Home births are reported by a parent or guardian, and abandoned children are registered by an officer from the police or any other relevant government agency. The *kebele* registers the birth and issues a certificate, and transmits three copies of the vital events forms to the RVERA, which returns any forms with errors for correction and resubmission. All births should be registered within 90 days. The *kebeles* must verify and transmit the details to the RVERA in 30 days. The RVERA must then transmit the records to VERA in 30 days, and VERA transmits records to Central Statistical Agency within 30 days.

The kebele offices issue identification cards, called Kebele Cards, to their residents, resulting in one of the most decentralized national ID systems in the world. Kebeles have a surprising degree of autonomy in the color and design of their cards, which they order from local printers. Some cards are simple, with details about the resident on the front, and the stamp and signed authorization of the kebele on the back. Others are in the form of a folded booklet.

The paper cards differ in content and appearance across the country and have no security features. The issuing officer verifies the card after confirming the user's identity. Coverage appears to be very high, although there is no centralized

Birth registration 8.5 REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION BIOMETRIC REGISTRATION CENTERS PER 50,000 PEOPLE

ETHIOPIA

database that allows for an accurate estimate of how many individuals hold *Kebele* Cards. These cards are used for many private and public sector transactions.

While they may look different, *Kebele* Cards include a standard set of information: full name (including the name of the father and grandfather*), mother's name, photo, data of birth, occupation, ethnic group, emergency contact details, *kebele*, *woreda*, date of issue, issuing officer, and *kebele* stamp. Cards also include the telephone number of the *kebele* to facilitate queries on the authenticity of the document.

Not all *kebeles* require every member to hold a valid card, although a high percentage of the adult population holds them regardless. In one recent exercise that required the registration of all *kebele* residents for food aid, only about 5 percent were found not to have cards.

Cards are not usually free. Most applicants are charged a fee, typically Br 10-20 (US\$0.44-US\$0.87), to defray the costs of printing the card. They will also need to pay for the photographs—typically Br 20 for four prints—which may

require travel to another town or village with a photographer. With the minimum public sector wage around Br 500 (US\$21.85) per month—and far lower incomes for most rural residents—the cost of obtaining a *Kebele* Card is not negligible. The cost of a *Kebele* Card would be equivalent to about one-fifth of the monthly earnings of beneficiaries of the Productive Safety Nets Programme (PNSP) targeted at the rural poor. However, the practice of charging for the cards is not uniform, as some *kebeles* that require residents to hold a *Kebele* Card make the cards available at no charge.

Ethiopia's *Kebele* Card system reflects the features of its tight, community-based administrative structure. To begin with, every adult belongs in a community, and has access to an identifying credential issued by that community that serves virtually the full range of functions expected from an ID. Obtaining a *Kebele* Card involves relatively little transaction costs, given its local administration.

The Kebele Card system is increasingly challenged to provide for Ethiopia's identification needs. The challenges will grow as Ethiopia develops, and as its population urbanizes and becomes more mobile, moving farther away from traditional social and communal structures. There are plans to replace the Kebele Card with a modern, biometric digital ID, in accordance with Proclamation No. 760/2012

^{*} The naming convention of Ethiopia follows a patronymic system. Children have a unique first name that is followed by the father's name and the grandfather's name.



the Ministry of Health and Public Hygiene, is responsible for birth registration in Gabon. Birth registration has been carried out since 1957. It is mandatory, and must be carried out within six months of childbirth for a charge of CFAF 1,000 (US\$1.71). Gabon's institutional birth rate is 90 percent, and the birth registration rate is 89.6 percent. The rural birth registration of 89.3 percent is slightly lower than the urban birth registration rate of 91 percent. The Registrar General ensures that birth registration is carried out in all districts in the country. A birth notification must be obtained and presented to the district registrar of births and death in order to have the birth certificate processed. Notification of non-institutional births can be handled at the local offices.

Individuals who register their child and obtain a birth certificate after six months must produce notifications cards, a baptismal certificate, and either a school leaving certificate, identity card, or passport. In 2007, in an effort to be more inclusive, the government of Gabon took special initiatives to issue birth certificates to pygmy children reside in remote areas. Most pygmies live in remote forests and are often seen as inferior, as they cannot register births or obtain identity cards, and so they are systematically sidelined. Failure to register birth also denies children access to education and health care.

Gabon's Ministry of the Interior, in association with Agence Nationale des Infrastructure Numériques et des Fréquences, launched a biometric identification initiative called Identification Biométrique Officielle au Gabon. This initiative seeks to replace the existing paper registry with a reliable

national biometric civil registry that will serve as a master registry for issuing national IDs (NIDs), birth certificates, drivers licenses, etc.

National D. The Ministry of Interior is responsible for issuing NIDs in Gabon. Gabon initiated the e-ID solution protect its citizens from identity fraud and ensure transparency in its electoral process. Ahead of its 2013 elections, the government of Gabon partnered with a vendor to issue e-ID cards and build a reliable national biometric registry to replace paper-based records with digital records. The new system would issue a unique identification number and a central biometric registry, and the information stored in this database can be used to issue birth certificates, ID cards, passports, and drivers licenses.

The Ministry of Interior has placed high priority on developing the digital civil registry, also seeking to improve electoral register accuracy and provide enhanced security ID documents as a part of its "Emerging Gabon" initiative. As a foundation for future e-services and transactions, the government is implementing a public key infrastructure to facilitate integration of the national biometric ID program into future e-government services. Enrollment for this end-to-end system was carried out in desktop and mobile stations that recorded citizens' demographic data, fingerprints, and digital photographs. The fingerprint biometric is used to match to the database to prevent duplication. In 2011, Gabon enacted a law to facilitate personal data protection. The Gabonese data protection agency is called the Commissariat à la protection des données personnelles.



THE GAMBIA

Birth registration. The Registrar of Births and Deaths, in the Ministry of Health and Social Welfare, is responsible for birth registration and death registration in The Gambia. According to WHO, registration of births and deaths began around 1880. The present system of birth registration has been in place since 1965. According to UNICEF (2012), the institutional birth rate is 55.7 percent, and the birth registration rate for children younger than five is 52.5 percent. The centralized system of birth registration and distance from the registrar's office, as well as costly and time-consuming processes, are some of the barriers to birth registration in The Gambia.

In an effort to decentralize the birth registration process and involve reproductive and child services, The Gambia began requiring health professionals to function as civil registrars in addition to their usual work. This initiative extends civil registration services to cover more children, increasing the birth registration rate from 32 percent in 2000 to 55 percent in 2005.

Two laws—the 1968 BDMR Act, CAP 41.01 of the Laws of Gambia and the 2005 Children's Act—mandate birth registration as a legal entitlement of every child in The Gambia. Birth registration is free of charge, while failure to register a birth may result in fines or even imprisonment. Births must be registered within 14 days of childbirth or the father is held accountable and must pay a fine or go to prison. In case of the father's absence, the mother is held accountable.

Birth certificates are required to enroll in preschool and Islamic school (*Madrasa*). The Gambian birth certificate consists of DOB, place of birth, child's name, father's name and

occupation, name of the person who registered the child, date of registration, registrar's name, and signature of the registrar. There are plans to conduct a comprehensive assessment of the CRVS. The country also plans to digitize registration of births and deaths, as envisaged in the strategic plan for 2016–2020.

Notional ID. The Gambia Biometric Identification System (GAMBIS) is responsible for issuing national ID cards. In 2009, The Gambia introduced a new biometric identity card that captures two thumbprints. Gambian citizens who are 18 and older are required to possess a national ID card. Individuals must fill out a GID-001 form, which can be downloaded from the GAMBIS website. Along with this form, individuals must produce copies of supporting documents—such as a birth certificate, Gambian passport, voter's card—as well as Form GID 008—District Seyfo/Alkalo Attestation form, and registration/naturalization certificates. The application fee is D 200 (US\$4.66).

The national ID is a chip-based smart card with biometric and biographic information, and is presently used for civil identification purposes. The card contains a photo, thumbprint, encoded chip, name, address, signature, and the National Identification Number (NIN). The NIN is an 11-digit unique number that is matched with the cardholder's thumbprint. The 11 digits correspond to date of birth, place of issuance, nationality, sex, and a checksum. The NIN must be provided during various transactions, including renewal or replacement of an identity card. The Gambia has also implemented a biometric voter registration system. The Gambia does not have any legislation pertaining to personal data protection, nor does it have a data protection agency.





Birth registration. The Births and Deaths Registry, the government agency responsible for civil registration in Ghana, was established under the Registration of Births and Deaths Act of 1965, (Act 301). Ghana had vital registration as early as 1888, though it did not capture deaths until after 1912.

Ghana's institutional birth rate is 67.4 percent, and birth registration rate for children younger than five is 62.5 percent. According to UNICEF, the birth registration rate improved from 51 percent to 63 percent between 2006 and 2011. However, there is a gap between the rural and urban birth registration rates, which are 55 and 72 percent, respectively. Community health campaigns and mobile registration initiatives have increased birth registration rates by reducing the indirect costs of birth registration, and by engaging more community volunteers, especially among poorer communities.

Ghana has 10 administrative regions and 170 registration districts, with at least one registration office in each district. Children from low-income families and rural areas are least likely to have a birth certificate. Ghana launched an integrated portal for requesting e-services, allowing birth registrations and national ID applications to be submitted online. This portal serves as a one-stop shop for requesting various services for citizens and noncitizens alike. However, the birth and death registry does not collect and store information electronically. It also has challenges in integrating and harmonizing civil registration data with identification data.

National ID. In 2006, Act 707 established the National Identification Authority (NIA) as the sole authority responsible for the enrollment of individuals in the program and issuance of national identity cards. Every resident of Ghana age 15 and over, regardless of citizenship status,

must obtain a national ID. The NIA is also required to establish a biometric-based national identity register. Sections 18 and 73 of Acts 707 and 750, respectively, state that NIA will craft regulations to create, maintain, provide, and promote the use of national identity cards, outline the NID's functions, and prescribe fees payable under the law, among other regulations to advance economic, political, and social activities in Ghana.

Ghana cards enable identification of individuals based on biometric information, specifically fingerprints. Each card is valid for 10 years and contains the name, sex, DOB, height, personal ID number, expiration date, and biometrics in a machine-readable 2D-barcode. The cards also carry the holder's signature. Double registration for Ghana card is an offense under section 40 of the National Identity Register Act, 2008(Act 750). Regulation 7 of L.I. 2111 provides for the mandatory use of national identity cards for various civil and administrative processes and transactions.

The NIA is planning to upgrade the existing identification system to accommodate institutional identity services requirements, and to harmonize all ID systems in Ghana. The proposed national identification system will consist of a database, communications networks, security, and card production systems. It is intended to facilitate the exchange of data between stakeholder institutions and the NIA under legally defined security and privacy considerations.

Under Ghana's Data Protection Act of 2012 (Act 843), a data protection commission functions as an independent statutory body to protect the privacy of the individual and personal data by regulating the processing of personal information. The commission is responsible for the process to obtain, hold, use, or disclose personal information, and for other related issues related to the protection of personal data.

Birth registration O.3 REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE

Birth registration. The Ministry of Health is responsible for birth registration, death notification, and issuance of birth and death certificates in Guinea. Birth registration is carried out by the municipalities under the civil registry. Birth registration is mandatory, and offered free of cost. Parents have to register the birth of their child within 30 days of birth. Article 192 of the Guinean Civil Code (2003) mandates birth registration. The civil registry is governed by the Civil Code and the Children's Code. According to UNICEF (2012), Guinea's institutional delivery rate is 40.3 percent, and the birth registration rate for children below five years of age is 57.9 percent.

According to a report commissioned by the World Bank, Guinea is currently in the process of modernizing its civil registration. This initiative, based on a 2015–16 action plan drawn up by the National Civil Registration Directorate, addresses both legal aspects (civil registration code, organization), and institutional aspects (roles of the main stakeholders, standards of interoperability between the various agencies). The European Union (EU) has provided €1 million toward this initiative. The modernization of civil registers is being carried out by the EU and UNICEF in the Nzerekore region.

programs with different vendors over the last decade. In 2011, the government proposed a strategy for developing a national ID register, with a database to be used for all functional applications including elections. It was to serve as a foundational national register to issue secure ID cards.

In early 2012, biometric enrollment stations and a Central Identity Database were set up. Enrollees were deduplicated using an automated fingerprint identification system, and software and printers were purchased to issue secure ID cards with a unique ID number.

Currently, about 5 million blank polycarbonate ID cards are stored at a warehouse in Conakry. These cards were delivered but never personalized or issued, as priority was given to the use of the register for elections and issuance of national ID cards was discontinued. Guinea had initially envisioned deploying smart cards, but decided to issue 2D bar codes to save on cost. Guinea does not have any legislation on personal data protection. Currently, there is an initiative under way supported by the World Bank to provide all residents with a unique ID number associated with biometric data.

Guinea's election commission, the Commission Électorale Nationale Indépendante (CENI), and its Ministry of Territorial Administration and Decentralization performed a biometric census. They enrolled users, capturing 10 fingerprints and high-quality images for facial recognition. In 2012, the enrolled/updated database contained approximately 4.2–4.3 million people. In 2013, the system was updated for the upcoming legislative elections; by the end of 2014, it contained data on nearly 5 million individuals of voting age. The register is the closest thing to an identity database in the country including biometric and biographic data and date of birth.



GUINEA BISSAU

Birth registration. The Ministry of Justice is responsible for birth registration in Guinea Bissau. Birth registration has been carried out free of cost since 1976. It is not mandatory but offered free of cost until eight years of age. According to UNICEF (2012), the institutional birth rate is 41 percent, and the birth registration of children below five is 39 percent. Guinea Bissau made an effort to computerize all its birth registration data since the year 2000. Nearly half a million children born between 2000 and December 2007 were registered in the electronic database.

Services, is the organization responsible for issuing national IDs. The country experienced major challenges with the previous paper-based national identity card and set out to modernize its existing paper-based system. Following this, a national ID program was introduced in 2013 to achieve new levels of security. The initiative hoped to prevent fraud and

counterfeiting. The new integrated ID card includes a civilian automated fingerprint identification system (AFIS) to reduce potential internal fraud, eliminate duplicate identities and precisely verify the identity of legitimate cardholders. Applicants must initially establish their identity via documentary evidence by providing an existing ID card or birth certificate and then fill out an application form for enrollment at an ID station. Following this, the cardholder's identification data are encoded and an operator captures a digital photograph and two index fingerprints. All of the captured information is registered and stored in a central database. The NID card contains the name, date of birth, national identity number and facial image, and a minutia of the left and right index finger embedded within a 2D PDF 417 bar code. Guinea-Bissau plans to issue more than one million national ID cards in the next five years. Guinea Bissau does not have any legislation for personal data protection.

Birth registration REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION BIOMETRIC REGISTRATION CENTERS PER 50,000 PEOPLE



Birth registration. The Kenya Department of Civil Registration has a mandate to register births and deaths, and to issue the corresponding paper certificates. Kenya has been documenting births since 1904. Birth registration is mandatory and must be completed within the child's first three months, according to Kenya's Birth and Deaths Registration Act CAP 149. The birth registration rate of children below five years of age is 63 percent, and the latest figure for the institutional birth rate is 60 percent. The village subchief is responsible for registering home births. The local registration office gives each registered child a unique birth registration number consisting of 12 digits. The number contains the subcountry code (three digits), the year of birth/death (four digits), and a running number (five digits) assigned to events in sequence as they occur from the beginning of the year. This set of 12 digits is referred to as the "birth entry number."

The absence of a birth certificate can prevent children from enrolling in school or deny them their rightful inheritance. The Ministry of Health has employed innovative mobile technology to improve CRVS, also launching the Monitoring of Vital Events through Information Technology (MOVE-IT) program, which had community health workers report births and deaths using their mobile phones.

NRB) is responsible for collecting biometric and biographic information and issuing national IDs (NIDs). The NRB also operates the Automated Fingerprint Identification System that checks for duplicate or multiple registrations. The ID card system can be traced back to 1915. The Kenyan NID is mandatory and must be acquired when an individual turns 18, when it is issued free of charge. The card includes basic information (name, sex, date and place of birth, date and place of issue), a photo, a signature, and an image of one fingerprint. It also contains a sequential eight-digit NID number (a number of digits sufficient to cover a Kenya's population)

and a nine-digit serial number. The Kenyan NID does not have an expiration date. Thus far, Kenya has issued 24 million cards, but this total may include duplicates as well as the inactive cards of deceased individuals. There are about 1.2 million new registrations each year.

In January 2015, President Uhuru Kenyatta launched Kenya's first Social Protection Week, which aimed at harmonizing all government agencies involved in social protection. This is relevant to the NID system because there are other registration or identification components within the government, and these have traditionally functioned in silos, each with a specific mandate. For instance, the Independent Electoral and Boundaries Commission uses its own biometric systems to register voters and authenticate them against voter lists at the polls. Voter registration requires a NID card or a passport, and passport applications call for a NID. Thus the NID is central to multiple civic activities.

Kenya recently launched the Integrated Population Registration System (IPRS), a central database that stores information about all residents, whether citizens or foreign nationals. The database contains data from different sources, including birth registration, civil registration, alien and refugee registration, and the national population register. However, these data are not completely harmonized. The IPRS consolidates population registration data into one database to enable verification of an individual's credentials by both government and private bodies. A unique identifier is assigned to each person's record and acts as a reference in all transactions regarding that person.

The national registration processes in Kenya are governed by the Constitution and a range of legislation. However, Kenya does not yet have specific personal data protection legislation. The draft National Registration and Identification Bill 2012 was still pending as of early 2017.



LESOTHO

Birth registration. The Ministry of Home Affairs, National Identity and Civil Registry (NICR) agency is responsible for birth registration in Lesotho. The Registration of Birth and Death Act 1973, mandates birth registration in Lesotho. According to UNICEF, the Institutional Birth Rate is 58.7 percent and Birth Registration Rate of children below five years of age is 45.1 percent.

Beginning in 2013, the birth registration and certification process has moved from a decentralized paper based to a digitized and centralized system. The parents submit the required forms, including attestation from the chief of nationality of the parents and medical declaration of birth to the district level registration office. The information is then entered using a customized software and checked by another operator. Once confirmed, a birth certificate with various security features that includes a centrally issued unique ID number is printed. The unique ID number is a 12-digit number with logic including the enrollment location, sex and a number denoting citizenship. The original paper files (which are required by law) are maintained at the district office while the electronic data is maintained at a dedicated data center.

Birth certificates are issued free of cost within the year of birth, but beyond a year it costs M 4.50 (\$0.32) for late birth registration and takes up to three days to be processed. These nominal fees contrast with the cost of transportation for families that live in remote areas. There is little demand for birth registration for young children as mandates to present birth certificates for primary education are not enforced. Many people request their first birth certificates only when entering secondary or even tertiary education. While birth certificates are required in order to access the means-tested program of child grants, this rule is not strictly enforced. There are efforts under way to utilize social workers to help increase registration rates of poor households.

National ID. The NICR is also responsible for issuing national IDs and maintaining a population registry. It was established under the National Identity Cards Act 2011

and is also responsible for passport issuance. As of early 2017, around 800,000 national ID cards had been issued out of an estimated eligible population aged 16 and above of about 1.2 million. Including children, the National Population Register includes around 1.2 million individuals out of a total population of about 2 million and is growing steadily.

The process for obtaining the national ID is completely integrated with the birth and death registration processes. The birth certificate is required as part of the application for the NID. In the case that the individual does not have a birth certificate, he or she will go through the process described above and after receiving it will move to the enrollment station for the NID. A photo and fingerprints from all 10 fingers are taken digitally. After an on-line deduplication check confirms that the individual has not already been enrolled, a 2-D bar code credential is printed. It contains a machine readable fingerprint and biographical information as well as a photo and other information on the face of the card. There are 15 enrollment centers that allow for birth registration and NID enrollment and are on-line and connected to a central server in a dedicated data center. There are also satellite offices that allow applicants to submit documents that are then carried to the district offices for processing in order to reduce transportation costs of applicants. However, applicants must visit enrollment centers to complete the biometric data collection. The exception to this rule is mobile enrollment where biometric capturing kits are taking to remote locations. There are six mobile enrollment kits that are used to serve remote areas on a periodic basis.

While the 2-D bar code card could be used for authentication by verification of the card or through biometric or other personal information, this is not yet in place. However, in 2015, Lesotho collaborated with South Africa on a successful pilot program to allow on-line, biometric authentication of migrant workers.

Lesotho passed personal data protection legislation in parallel to the National Identity Card Act 2011. The law specifies the rules for privacy and the sharing of personal data.

Birth registration O.4 REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID 1.9 REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE REGISTRATION RATE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE

BERIA DE LA CONTROL DE LA CONT

Social Welfare is responsible for birth registration in Liberia. Birth registration is mandatory and the Liberian government encourages its citizens to register birth within the first 12 years. Although birth registration is free of charge and has been carried out since 1973, Liberia has one of the lowest birth registration rates in Sub-Saharan Africa. The institutional birth rate is 36.9 percent, but the birth registration rate for children younger than five is only 24 percent, as 13 years of civil war disrupted the basic mechanisms for registering births. The government of Liberia and its partners are working together to reestablish a countrywide system of birth registration. Two significant challenges are lack of awareness and a highly centralized process that requires parents to travel to Monrovia, the capital, in order to register the birth of a child.

Initiatives are under way to decentralize birth registration and establish a digital registry. The Universal Birth Registration (UBR) program is a joint initiative of the Ministry of Health and Social Welfare, UNICEF, the United Nation's High Commission for Refugees, Plan Liberia, and the Crisis Management Initiative. The UBR aims to increase birth registration and certification for children younger than six years old to 90 percent by 2018. Under this scheme, all children under six will be issued free birth certificates.

The Liberian district registration officers use mobile phone technology to register births at health facilities, instantly sharing data with the county registration office in order to print birth certificates. The process is being accelerated with the help of traveling registration teams that visit communities, register births, and provide birth certificates on the spot. Birth certificates in Liberia can protect children from child marriage, child labor, and child trafficking. The government of Liberia encourages UBR through Public Health Laws Chapter 51; this law enforces the registration of children within 14 days of birth, making nonregistration punishable by a fine of \$4,725 (US\$50).

National D. The National Identification Registry (NIR) is responsible for issuing national IDs (NIDs), which all Liberian citizens have been able to obtain without cost since 2011. The Liberian NID is a pocket-sized laminated plastic card that contains the holder's name and some demographic information. Liberia is one of the few Sub-Saharan African countries that issues NIDs at birth.

The National Identification Registry Act of 2011 established the NIR and authorized it to implement the National Biometric Identification System (NBIS). Under this Act, NIR set up a management team in October of 2015. The NIR hopes to establish or acquire the technical infrastructure and control procedures that will serve as the platform for implementation of the NBIS. This system will collect, organize, store, secure, and grant access to secure biometric data collected from individuals applying for national biometric identification cards and other key documents, such as passports, driver's licenses, and social security cards. The NIR Act does not define digital identity as a legally recognized category, but instead simply provides the legal framework for national identity.

Liberia has certain key technical challenges, such as lack of IT integration and technical infrastructure, that must be resolved before it can roll out its next electronic and biometric ID system. The NIR has not begun implementation, nor has the country started issuing identification cards to its citizens.

In 2011, the National Election Commission used solar-powered equipment that printed and laminated voter ID cards within minutes of registration. Voter IDs contain individual information such as name, date of birth, address, etc., but no biometric information. Liberia has multiple functional identity systems, including passport number, civil servant registration number, social security number, driver's license number, birth registration number, and voter registration. A few of these systems capture biometric information. Liberia lacks legislation addressing personal data protection.



INADAGAS CAR

birth registration. The Ministry of Interior and the Ministry of Justice are the government agencies responsible for civil registration in Madagascar. When Madagascar initiated a Civil Registration and Vital Statistics System in 1878, it covered only the country's French population. Birth registration of all individuals began after the country gained independence in 1961. According to UNICEF (2012), the institutional birth rate was 35.3 percent. In 2015, the birth registration rate for children below five years of age was 83 percent.

Parents or guardians must register births at the local municipality with a live birth notification. During registration, the place of birth, date of the birth, full name, and sex of the baby are recorded. Parents must also provide their full names, address, date of birth, occupation, date of marriage, and family book* for parents who are married by the state. In the case of home births, registration happens at local administrative units called the *fokontany*.

All births must be registered, and the birth certificate must be issued within 12 days of birth. However, many parts of the country lack the infrastructure to carry out civil registration services. Furthermore, a UNICEF study cites the main reasons for nonregistration of births are lack of understanding among parents, and limited administrative capacities.

Birth registration completed within 12 days is free, but beyond that time limit there is a fine. The courts and local tribunals play a major role in late birth registration. Late registration costs the applicant FMG 100–1,600 (US\$0.03–US\$0.52). In 2004, Madagascar launched a campaign to improve birth registration, including door-to-door canvassing and large retroactive registration sessions, in order to revitalize birth registration in the country.

A committee established to monitor birth registration suggested that civil registration laws be revised to extend the

time allowed for birth registration to 45 days. This proposed reform also included provisions to facilitate birth registration in remote areas, launched programs to raise citizen awareness of vital events registration, and trained civil registrars on the importance of civil registration. Individuals can request birth certificates for themselves. For children under the age of 19, birth certificates can be requested by parents, custodial guardians, or representatives with written authorization from.

A 2016 World Bank report found that the distance to registration points, indirect cost of registration, fear of authorities, the short time frame for birth registration, and the lack of resources both to register the child and to issue a birth certificate were the key barriers to timely registration. The biographical data captured during civil registration, enrollment, and issuance of identification is not integrated or harmonized with national identification data. The civil registry database is decentralized and paper-based.

of Interior is responsible for issuing national ID (NID) cards. The Madagascan NID is known as carte nationale d'identité de citoyen Malagasy. This paper-based card, issued to all the citizens over 18 years of age, is required by law. The carte nationale d'identité has been issued at no charge since 1961.

The carte nationale d'identité has a serial number in addition to the unique number issued to all cardholders. The unique NID number is a 12-digit number that combines geolocation and a sequential number comprising region, district, commune, and gender, plus a six-digit sequential number. Once the information is captured on the document along with the fingerprints, the card is laminated. The issuance of the carte nationale d'identité is linked to nationality, and children born into families with a foreign father and a Malagasy mother face challenges. There are no data available regarding the issuance and coverage of the carte nationale d'identité. Madagascar has a data protection law, the Loi N° 2014-038, Sur la protection des données à caractère personnel. This legislation outlines standards and guidelines for personal data protection.









Madagascar issues family books upon marriage for the purpose of recording all vital events in the family.

TALAY!

Birth registration. The National Registration Bureau (NRB) is responsible for Malawi's civil registration. According to the Birth and Death Registration Act Cap. 25.01, which governs civil registration in Malawi, every district must maintain a birth register. Birth registration must be completed within 42 days of the birth, and there is no charge when the child is registered within six months of birth.

According to UNICEF, the institutional birth rate is 73 percent. However, the birth registration rate is just 2.3 percent, the lowest in Sub-Saharan Africa. In 2012, Malawi launched its universal birth registration program, following passage of the National Registration Act in 2009. This act makes birth registration mandatory and universal. The NRB began operations in three districts namely Blantyre, Ntcheu, and Chitipa and hoped to connect all district hospitals to the central database.

The main barriers to birth registration include lack of awareness and indirect cost. Parents must go to centers that are often far from their villages and must take their village headman along with them to complete the process. Individuals can vote, access education and health services, and obtain a passport and driver's license without a birth certificate, so there is little demand. Malawi has issued only 65,000 birth registration certificates so far. The NRB is in the process of issuing a unique ID number for birth certificates, ID cards, and death certificates

Notional D. The NRB has been issuing identification documents since 2007, following a 2005 initiative to issue national IDs (NIDs). The first NIDs were paperbased, issued after manual registration. The NID program registered 32,000 citizens at 120 District Registrar Officers spread over 28 districts. Currently, Malawi does not have a NID program or any data protection laws.

Malawians often use a driver's license, passport, or voter registration certificate as proof of citizenship. Individuals without such certificates need to bring any person who has such

documents to be a witness. Malawi has about 17,000 refugees and asylum-seekers, mainly from the Great Lakes region and eastern Africa. As part of the United Nations High Commissioner for Refugees (UNHCR) effort to establish an identification system for refugees everywhere, the commission set up a registration and identification system in Malawi. The UNHCR's identity registration initiatives for refugees in Malawi stores fingerprints, iris data, and photographs for facial recognition that will serve as a vital record for refugees without identification.

Malawi faces both structural and development challenges in setting up a national identification system. The absence of a centralized and up-to-date national register has led to a fragile capacity for evidence-based planning, beneficiary or service targeting, and accountable administrative systems. There are several fragmented initiatives that are expensive, unsustainable, and insular.

The United Nations Development Programme (UNDP) is spearheading an effort to launch an electronic identity initiative program known as National Registration and Identification System (NRIS). This initiative will issue chip-based smart ID cards and set up a multi-modal biometrics database to register all Malawians 16 years older. The Malawi National Registration Act (No. 13 of 2010) governs this national identification initiative. The NRB must complete the design and infrastructure to use biometrically secure smart cards, as well as obtain the necessary equipment. After these tasks are accomplished, Malawi will begin mass registration of all eligible Malawians within the country—an estimated 9 million individuals. Malawi hopes to transition to a system of continuous registration in 2018.

The NID database will be interoperable with other public and private sector systems within a legal framework and will comply with international standards of practice for privacy and data protection. The initiative is led by Malawi's UNDP country office and is set to begin the mass registration process in June 2017.

Birth registration O.4 REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE Notional ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE



Birth registration. The Office of the Civil Registrar is responsible for birth registration. It has been carried out since 1961, and it is mandatory. The process of birth registration is offered free of cost however it must be completed within 30 days of birth. According to UNICEF, the institutional birth rate is 55.5 percent, and the birth registration rate is 80.8 percent.

The United Nation's High Commission for Refugees (UNHCR) states that 527,000 Malian people remain internally displaced or in refugee camps in neighboring countries. Lack of birth certificates has hindered access to social services. Several independent nonprofit organizations work with Malian communities to improve birth registration and fund birth certificates to allow children to enroll in school.

In April 2015, Malian refugees in Mauritania were issued birth certificates by the UNHCR. As part of this initiative 7,807 children will be issued birth certificates. In principle, these birth certificates will enable them to apply for naturalization in Mali, and facilitate access to state services, sell land, set up companies, borrow from banks, sign work contracts, and most importantly enroll in school.

National ID. The Ministry of Interior and Security is responsible for issuing national ID (NID) cards. NIDs are issued to individuals 18 and older and it is issued free of cost. Mali has a national ID number called Numéro d'Identification National (NINA). Mali has been issuing NIDs since 2010, and it introduced an electronic ID card in 2013. This NID has been used for civil identification and voting. The credential is a static bar code enabled card with biometric authentication. The government of Mali used the existing biometric database stored in the country's civil register (RAVEC) to verify the voters. Mali's independent electoral commission pointed out flaws in the electoral roll as more than 6.7 million biometric voter cards were produced ahead of the 2013 presidential elections, but the issuance was based on the list drawn up from 2009 to 2011. Hence it was thought to have excluded some eligible voters.

Currently, the NINA initiative has become the main source of identification of all Malians. It is used as a breeder document to create passports, mandatory health insurance cards (AMO). However, the main challenge is that none of the computer applications for passport, health insurance or identity cards can access the NINA database directly. This raises the major need for interoperability and the inter-linking of databases. Mali has a personal data protection bill.



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Secure Title Registration Agency, or Agence Nationale du Registre des Populations et des Titres Sécurisés (ANRPTS), is responsible for civil registration in Mauritania, which has registered births since 1960. Birth registration is mandatory, must be carried out within 60 days of birth, and is offered free of charge. The penalties associated with failure to register a child's birth on time include one to six months in prison and a fine of UM 1,000 (US\$3.11). The country has implemented several community outreach events to promote birth registration.

According to UNICEF, the institutional birth rate is 64.5 percent and the birth registration rate for children below five years of age is 58.8 percent. Birth certificates can be obtained from the Citizens' Reception Center—Centre d'accueil des citoyens—of the Moughaata (department) in which the person was born, or in which his or her parents have their legal residence.

National ID. ANRPTS is responsible for birth registration, death registration, and issuance of the National Identity Number (NIN) and national ID (NID) cards (CNI) in Mauritania. The NIN, which is issued during birth registration and printed on the CNI, serves as a unique identity number from an individual's entire life. Individuals who do not obtain a NIN during birth registration can obtain one at a later time. The NIN is issued at the time the applicant registers, so there are no backlogs or delays. The NIN operates in all government databases. It is a logic number and, as described by the governing decree, contains two numeric characters for the year in which the CNI was issued, two numeric characters for the wilaya in which the application for the CNI was made, two numbers for the moughaata, two for the commune, and seven for a sequential number reflecting the geographical area.

NID cards have been issued since 2001 to all nationals who are 15 years of age and older. Prior to 2010, the NID was a plastic card with a photo of the cardholder and the cardholder's name, family name, date and place of birth, and an individual bar code, along with the signature of the Director General of National Police. The information on the NID card was linked to the cardholder's finger biometric in the database. In 2010, Mauritania introduced a single integrated system and renovated its public record system. The government uses this system to identify its population, produce identity documents, manage police records, and establish border control. Before the 2011 elections, the Ministry of Interior and Decentralization issued a call for bids for production of the IDs, in order to establish the software and systems for the registry that manages civil records, visa issuance, police records, and the issuance of NID numbers and cards. ANRPTS centralized all of the registration data, customized the secure ID documents, weeded out duplicates using biometric identification, and generated a NID number for each citizen.

Mauritania's "National Digital Confidence Framework" was designed to foster more effective management of Mauritanian public records. The present Mauritanian NID card is a smart card that uses biometric and facial recognition. It can be used for e-services, but it does not contain a digital signature and cannot be used for remote online transactions. During registration, 10 fingerprints, a digital photograph, and the cardholder's signature are captured and scanned. Supporting paper documents are collected at the same time. NID cards are issued for a price of UM 1,000 (US\$3.11).

From 2010 to 2011, Mauritania established 40 mobile registration stations, 110 permanent stations, and 54 citizen receptions centers where citizens can register and apply for a NID. As a result, 1.1 million NID cards were issued to citizens in less than a year. While NIDs are not mandatory, they

Birth registration REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE National ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE National ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE

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are a requirement for voter registration. Legislation on personal data protection has been drafted to provide the country with a legal framework governing personal data protection, and to set up a data protection agency—the Autorité de protection des données personnelles.

Mauritania has a large number of refugees, returnees, and internally displaced persons. The United Nation's High Commission for Refugees (UNHCR) is in the process of issuing biometric refugee ID cards to Mauritanian refugees in the neighboring countries of Mali and Senegal. In addition, ANRPTS has collaborated with the UNHCR to enable the

government of Mauritania to issue birth certificates to Mauritanian refugee children born in neighboring countries. The government-issued birth certificates will serve as official identity documents and enable the children to enjoy their rights and benefits. This is a milestone, as Mauritanian refugees born in exile have never been issued legal documents that could link them to their country of asylum or origin. The intent is to have the cards serve as official identity documents, allowing the children to enroll in school, and access health care and other services. The card contains finger-prints, a photograph, and biographical data.

MAURITIUS

Birth registration. The Registrar of Civil Status is responsible for birth registration in Mauritius. Civil registration is governed by the Civil Status (Amendment) Act, 1981, which outlines procedures for birth, death, and marriage registration in the country. It was enacted by the Code Civil Mauritian (1982), which introduced computerized operations and made it mandatory to produce a national ID card for all civil status transactions. Birth registration must be completed within 45 days of child birth. If the parents miss the 45-day time limit, they must obtain an authorization from the Registrar of Civil Status to enable registration; if the child is not registered within three months of birth, the parents have to apply for a declaration before the magistrate of the district in which the birth took place. The parents must produce their birth certificates, national ID cards, marriage certificates, and attestation of birth issued by the hospital or clinic authorities during child registration. The institutional birth rate of Mauritius is 98.4 percent; the birth registration rate for children below five years is 90 percent.

Under the Office of the Prime Minister) is responsible for issuing national IDs. Mauritius requires all its citizens who are 18 and older to apply for a national ID card. Mauritius had a paper ID card which was systematically phased out to incorporate the new electronic ID card, which can be used for accessing multiple e-services. In case the cardholder loses his/her card or if it is damaged, they will have to pay MUR 350 (US\$5.49) for a first new application and the fee is MUR 700 (US\$10.99) for the next and Rs.1000 (15.70) for the next claim. The new biometric ID contains the cardholder's name, sex, signature, black and white photograph, ID number, SC logo for senior citizens, a bar code (machine readable), a card control number, and date of issue. The chip in the smart card

stores information such as the photo, ID number, surname, first name, surname at birth, sex, date of birth, residential address, four fingerprint templates (two thumbs and two index fingers), and a digital certificate that ensures that the data on the card can be read only when validated through the Mauritius National Identity Scheme (MNIS) Certificate Authority. This card is linked to the population database to serve as an ID document, and prove identity and allow secure and reliable e-service transactions.

The process of obtaining the new biometric national ID is as follows: the individual must take his or her old paper ID, supporting documents (original birth certificate, proof of address, and marriage certificate and obtain a ticket. The officer verifies the documents, captures the applicant's fingerprints, takes a photograph of the applicant, and ensures all the data submitted are accurate. The applicant then verifies the data, and signs to confirm the same. Once the registration is complete, the officer prints a collection slip; the applicant obtains the slip and comes back in two weeks to collect the biometric card from the office after cross-checking finger biometric information on the card reader.

In 2015, the Registrar-General Department (RGD) announced that Mauritius is planning to implement the second phase of its eRegistry Project (MeRP) to provide e-services and facilitate e-submission of documents, e-payment of fees, e-registration, e-search, and e-delivery of registered documents. Mauritius has a Data Protection Act (2004), to ensure personal data protection. The Commissariat à la protection des données personnelles is the Data Protection Agency of Mauritius. Presently, 99 percent of the population in Mauritius has either has a national ID or a voter ID.



MOZAMBIQUE

Constitutional and Religious Affairs (MJCR) is responsible for birth registration in Mozambique. Birth registration is mandatory and must be carried out within 120 days of birth. There is no charge. Mozambique has had a civil registration and identification system since the Portuguese period, and has registered births since 1930. After achieving independence in 1975, the country retained most elements of the CRVS system, with few changes. The National Directorate of Registries and Notary, or Direcção Nacional dos Registos e Notariado (Conservatória do Registo Civil), under the MJCR, issues birth certificates. Birth certificates and identity cards are the two main forms of identification used in Mozambique.

According to UNICEF, Mozambique's institutional birth rate is 54.8 percent, and the birth registration rate for children younger than five is 47.9 percent. Mozambique significantly increased its birth registration rate from 6 percent in 2004 to over 50 percent in 2013. The country rolled out a national plan of action in 2004 and a national campaign in 2005 to increase birth registration rates and strengthen the CRVS system. As a result, about 4.2 million children under the age of 18 were registered. Mozambique then set up a national computerized database. The country intends to store and harmonize central, provincial, and district data in order to improve stability, prevent double registration, and simplify the process of acquiring birth certificates. Mozambique launched an operational plan in July 2014 to improve the CRVS system.

National D. The National Directorate of Civil Identification, or the Direcção de Identificação Civil (DIC), in the Ministry of Interior, has been responsible for issuing national IDs (NIDs) since 1980. NIDs in Mozambique are called bilhete de identidade. A Mozambique national can apply for a NID upon turning 18. Children below 18 years of age are documented under their parents' NID cards, at a charge of Mt 90 (US\$2.50) per child. A NID card for an adult costs Mt 180 (US\$4.99).

Mozambique has a unique national identification number, assigned during birth registration. This national identification number is used on NID cards, health cards, driver's licenses, and passports. Birth certificates are a prerequisite to obtaining NIDs. The NID is valid for 5 years for individuals below 40 years of age, and is valid for 10 years for individuals between 40 and 50 years old. The card is valid for life if the cardholder is over 50.

The NID is mandatory, and is regulated by Decree no 11/2008 of the Council of Ministers. Mozambique's NID is a laminated card with a magnetic strip that contains an ID number, photograph, full name, sex, date of birth, nationality, address, biometrics (fingerprints), place and date of issue, height, occupation, marital status, expiration date, and signature of the user. Mozambique does not have any legislation for personal data protection.



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Birth registration. The Ministry of Home Affairs and Immigration (MHAI) is responsible for the identity management system in Namibia. This includes birth, marriage, ID, and ID registration. According to the National Population and Household Census (2011), 89 percent of all Namibian citizens hold a birth certificate, including 78 percent of all children below five years of age. Birth registration happens in real time and is offered free of charge, while duplicate registration takes seven days and costs N\$12 (US\$0.91). Changes to a birth certificate cost from N\$30 (US\$2.28) to as much as N\$220 (US\$16.73).*

To complete birth registration, applicants must provide the health card, marriage certificate (if parents are married), and identification documents of both parents. For late registration, the requirement also includes an affidavit from the principal of the first primary school and, in cases where the applicant's parents are deceased, affidavits from two witnesses who are at least five years older than the applicant (a single affidavit will suffice if only one parent is deceased). In 2008, Namibia launched a series of campaigns to promote birth certificates. At the time, the institutional birth rate was 81 percent and 70 percent of all children were registered, yet 40 percent of children aged five and under lacked birth

* Corrections, verifications, and some changed details cost N\$30 (US\$2.28), while other modifications on a Namibian ID and birth certificate cost up to N\$220 (US\$16.73). A change of surname costs N\$80 (US\$6.08) for a minor and N\$220 (US\$16.73) for an adult.

certificates. The government of Namibia set up mobile teams to reach remote communities in order to increase this rate to the current 78 percent.

[NID] cards to Namibian citizens and permanent residence permit holders who are 16 years of age and older. Applicants must request NIDs at MHAI offices. The Identification Act, no. 21 of 1994, governs the registration and issuance of NIDs.

As of July 2016, 21 of the country's 64 MHAI offered ID registration services, sending all applications to the MHAI head office in Windhoek for processing. The applicant's finger biometrics are checked against existing records in the National Population Registration System to avoid duplication. NID cards are free of charge, as are ID cards reissued due to errors. Replacement of cards that are lost or stolen costs N\$50 (US\$3.80).

The NID card contains the cardholder's photograph, personal identification number, date of birth, name, signature, country of birth, gender, height in meters, date of issuance, unique application number, nationality, eye color, biometrics (fingerprints), and a machine readable bar code. The personal identification number is a quasi-logic number containing the cardholder's date of birth written backwards (YYYY-MM-DD), followed by four automatically generated numbers. Namibia does not have specific legislation for personal data protection.



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Birth registration. The Department of Civil Status and Refugees (Direction de l'État civil et des Réfugiés), Ministry of Interior, Public Safety, and Decentralization, is responsible for birth registration and civil identification in Niger. The birth registration system has been in place since before Niger achieved its independence in 1960. Births must be declared within 10 days, to either the notification office or directly to the civil registration office. The civil registration office has another 30 days to complete its paperwork. Birth registration is free of charge when carried out with 10 days of birth. Local communes handle civil registration in Niger, and these primary registration centers come under the aegis of the local mayor's office. There is a late registration fee that ranges from CFAF 1,000-10,000 (US\$2.50-US\$25.00). Children without a birth certificate cannot enroll in higher education, access public health programs, or receive social services.

Most children who lack legal identity are born to parents with little or no education, tend to live in severe poverty, and reside in remote rural areas. In 2013, the government started a mobile civil registration initiative. The initiative consisted of bringing judges to remote areas to ensure a legally acceptable process for the enrollment of nonregistered children. Late registration fees were waived and birth certificates were issued to children living in rural and tribal regions. The campaign also created more than 6,000 tertiary registration points to continue this effort. These tertiary registration points are not permanent civil registration points, but act as declaration centers or administrative notification points to document vital events. The registration points are maintained by municipal workers such as a midwives, who manage these declaration centers in addition to their regular work.

In recent years, Niger has reformed the civil registration and vital statistics system in order to make it more efficient. These reforms played a major role in improving the birth registration rate. The reforms also reduced wait times to obtain birth certificates from 45 days to 30 days. Niger issues a five-digit sequential number on the birth certificate. However, these numbers are not unique because Niger begins each year by reissuing numbers from 1 onward, thus making it likely that multiple users will have the same number, and thereby causing confusion. A recent World Bank report found that there is a significant gap between the number of children registered and the number that receive birth certificates.

Ministry of Interior, Public Safety, and Decentralization, is responsible for the issuance of national IDs (NIDs) in Niger. NIDs have been issued since 1999, and all Niger citizens above 18 years of age must hold a national identity card (carte nationale d'identité). Two laws govern these NIDs. The first decree (64-193/MI), dates back to 1964 and states that all individuals over 18 years of age must possess a NID. It remains the main governing law that mandating NIDs. A law passed in 2003 mandates digital NIDs for all individuals over 18. However, the new digital NID card carried a cost of CFAF 2,000 (US\$3.30), which proved too expensive. Therefore, Niger reverted to paper cards, which are issued by the local police departments.

Although the Ministry of Interior, Public Safety, and Decentralization is responsible for both the civil registration and civil identification, the data gathered under these two processes are not harmonized or interoperable. The NID contains a person's full name, DOB, place of birth, photo, a seven-digit alphanumeric identity number, signature, inked left thumbprint, and an authority seal, and is valid for five years. The seven-digit identification number is a combination of sequential numbers, an abbreviation of the commune where the ID was issued, and the birth certificate number. The paper ID card does not have any additional security features beyond a gold ink print of the "Republic of Niger"; these



NIGER

cards are produced by local commercial printers. Applicants must submit proof of nationality and a birth certificate, fill out their biographical details, and attach a passport photograph. Registration of user data is completed manually and maintained in registration books.

Niger does not have a personal data protection law. However, there is a decree to establish a Data Protection Agency that

would conform to the Economic Community Of West African States treaty on data protection. This decree outlines general provisions, rights of access to public information and administrative documents, and accessible and non-accessible information. The decree also provides details on procedures to access public information, notification and publication of administrative documents, appeals procedure and penalties, and transitional and final provisions.

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Commission (NPopC) is responsible for registering births in Nigeria. The NPopC was established by the National Population Commission Act in 1988, and the registration of births is regulated by the Births, Deaths, Etc. (Compulsory Registration), Act of 1992. The NPopC has established nearly 3,624 civil registration centers across Nigeria, with more than 5 in each of the 774 local government areas. It also runs registration desks at major hospitals and other health facilities and works closely with the National Primary Healthcare Agency. Birth registration is mandatory and must be carried out within 60 days of childbirth and is free of cost. A birth certificate is a prerequisite for school enrollment and may be used to obtain travel documents and a national ID (NID) card.

According to the 2013 Nigeria Demographic and Health Survey (NPopC and ICF International 2014), the institutional birth rate is 36 percent, and the birth registration rate of children under five years is 30 percent. The birth registration rate in rural areas (19 percent) is lower than that in urban areas (50 percent). Nigeria does not impose any penalty on citizens who have not registered births, although registration is legally mandated. Registration of birth of children under age five is lower in some northern states and in conflict-affected areas of the Niger Delta region.

In January 2011, the NPopC implemented a mobile phone-based platform, RapidSMS, as a pilot scheme in 19 states, including 382 local government areas and 1,582 registration centers. The system was designed to identify—in real time and center by center—birth registration disparities, and prompt and facilitate appropriate action. The NPopC and UNICEF seek to use RapidSMS to improve birth registration activities and provide evidence-based responses for programming and advocacy.

National ID. Nigeria has a fragmented identity landscape, with 13 or more identity programs run by different government agencies—e.g., the Central Bank, the Election Commission, and the Communications Commission. The National Identity Management Commission (NIMC), established by the NIMC Act No. 23 of 2007, is the federal agency responsible for issuing foundational IDs/NIDs; it succeeds several earlier national ID initiatives. The NIMC aims to bring together and integrate all other past and present biometric ID schemes. It is mandated to register adults as well as children, establish a national database of unique identities, assign unique national ID numbers (NINs), and issue NID smart cards to registered individuals. With 404 enrollment locations nationwide and 2,500 enrollment staff, the NIMC has so far registered 16 million of the total population of 173.6 million (i.e., 3.5 percent) and issued 418,000 NID cards.

The NIN is an 11-digit random unique number assigned to an individual for life upon successful enrollment in the NID database. The NID card is a microprocessor chip-based general multipurpose ID card, with 13 applications including ID verification, authentication, and payment technology to help promote financial inclusion. NID registration and issuance are free to citizens and legal residents, although there is a fee for subsequent card replacement. There is no penalty if citizens fail to obtain an NID. The ID card contains two photographs of the holder and a chip storing an individual's biometric information (10 fingerprints and an iris scan). Biometric deduplication is carried out before NIN issuance. After successful deduplication, a unique NIN is issued and stored in the NID database. Children below age 16 are required to register their biometric information with the NIMC and update it every two years; however, the child's biometric information is not used for deduplication. The child is issued an NIN linked to that of the parent.



NIGERIA

In 2013, the NIMC prepared a privacy policy that eventually led to the privacy bill being considered by the National Assembly. The privacy policy aims to ensure the protection of information by making reasonable security arrangements against risks due to unauthorized forms of access, collection,

use, disclosure, storage, or disposal of user data. This policy would also help ensure that the NIMC meets its obligations under the NIMC Act in managing the data collected and held in its registry. The National Security Advisor is responsible for cybersecurity in Nigeria.

RWANDA

birth registration. Rwanda has registered births since 1922. The current legislation governing civil registration is Law No. 32 of 2016, concerning individuals and families, and the relations between them. The 2016 law was part of an institutional reform that transferred responsibility for civil registration from the Ministry of Justice to the Ministry of Local Government; the latter includes the National Identification Agency (NIDA) and the civil registrars in each of Rwanda's 416 administrative sectors.

The 2016 law requires parents or health workers to report births within 14 days. Each sector is responsible for maintaining books of births. The sectors send birth registration data through a secure online portal to NIDA, where the data are verified and used to create a record in the digitized population registry. Forms, processes, and fees differ by sector. Sectors also issue birth certificates, although these cost as much as RF 500 (US\$0.70), and the population perceives them as having limited value. As a result, there is a significant gap between the coverage rates of birth registration and the possession of birth certificates.

According to Rwanda's official demographic and health surveys, birth registration coverage of children under five years old has decreased between 2010 (when it was 63 percent for birth registration and 6.6 percent for birth certificates) and 2014/5 (when it was 56 percent for birth registration and 2.7 percent for birth certificates). There is no difference in the rates for rural and urban registration or birth certificates, nor is there a difference by sex. However, there is a gap of 11 percent in birth registration coverage between the highest and lowest wealth quintiles. In 2014/5, 91 percent of births were assisted by a skilled health provider, which presents an important opportunity for increasing birth registration coverage.

National D. Rwanda's population registry covers all citizens, including those living abroad, starting from

birth. Coverage also extends to legal foreign residents and refugees from time of immigration. National ID cards are issued to all people 16 years and older, and include biometric data (photo, two thumbprints, and signature) and associated biographic data. Rwanda's national ID system is one the most advanced and well functioning in Africa.

The electronic National Population Register (NPR) is maintained at NIDA, and is the repository that contains a comprehensive list of everyone in the country. Rwanda's historical ID records were destroyed during the conflict; the country resorted to conducting a one-time campaign for registration of the population to serve as a baseline. During a three-day weekend (Friday to Sunday) in 2007, the government asked everyone to stay where they were, and thousands of civil servants went door to door and registered 9.2 million people. This information was digitized into a computerized database and constitutes the baseline population register.

The procedures for updating the register outlined above have kept this database growing and the vital information that it contains up to date. Today, the database includes over 11 million people and continues to grow at a rate of 220,000–250,000 per year. It tracks the rate of annual births stage in time. In addition to the NPR which covers the entire population of all ages, another database covers those below 16 years. These individuals are required to visit an enrollment center within six months upon turning 16 to complete their biometric enrollment and request a national ID card.

The country has 416 registration offices at the sector level; however, there are only 163 enrollment kits. Each enrollment kit consists of a laptop, a camera for capturing facial images, a fingerprint scanner for capturing the two thumbs, and a signature pad. Nevertheless, the number of enrollment kits is more than sufficient, as the sector offices have worked out an effective way to share it among themselves by publishing kit availability on a calendar.



RWANDA

Rwanda's national ID is a secure card with a 2D bar code on the back but without a chip. Each person in the population registry receives a unique 16-digit ID number, which is displayed on the card, along with a code reflecting their status as a citizen, foreign resident, or refugee. The cards also include the cardholder's photo, name, date of birth, and sex. The first national ID card costs RF 500 (US\$0.61), and replacement cards are RF 1,500 (US\$1.82).

The national ID system has emerged as a central part of life in Rwanda and, according to NIDA, has achieved over 95 percent coverage among the eligible population. A national ID card or number is required for accessing most services, including health care, higher education, taxation, pensions, social assistance, financial services, and SIM registration. While there is currently no biometric verification, service providers can access a secure online portal where they can verify identity and biographic data using a person's national ID number. Since 2014, Rwandans have been able to use the national ID card as a travel document to enter Kenya and

Uganda, as part of the Northern Corridor arrangement with those countries to implement the East African Community (EAC) Common Market Protocol (CMP) agreement on the free movement of people.

NIDA will soon introduce an optional multipurpose smart card, available for RF 15,000 (US\$18.17). It will enable biometric verification using the thumbprints stored on the card, and will initially contain photo, driving license, passport, social security, taxpayer, and health insurance data, as well as biographic data on dependents. In addition, the new national ID card will have a machine-readable zone on the back to conform with International Civil Aviation Organization standards for machine-readable travel documents, which is part of Rwanda's commitment to implementing the EAC CMP. NIDA will also soon begin issuing child ID cards to citizens, foreign residents, and refugees who are younger than 16. These cards will come in non-smart card and smart card forms at the same price as the adult cards. NIDA is looking into how it can earn revenue from verifications in order to reduce the fees it charges for the cards.

SÃO TOMÉ & PRÍNCIPE

Birth registration. São Tomé and Príncipe is an island nation in the Gulf of Guinea, encompassing two sets of archipelagos and constituting the six districts of São Tomé and the Autonomous Region of Príncipe. The total population in 2015 was 190,344. The Direcção Geral dos Registos e Notariado (DGRN) is responsible for civil registration, which has been required since 1961. Birth registration is legally mandated to be carried out at the hospitals where children are born. Those children who are born at home must be registered at the nearest precinct office. DGRN registry offices also record births. Failure to register a birth can result in a fine. The 2014 Multiple Indicator Cluster Survey (MICS) states that approximately 95 percent of children below five years of age had their births registered. Between the poorest quintile and the wealthiest quintile, there is a significant gap in the rate of birth registration for children below age five: 87.5 percent and 100 percent, respectively. Birth certificates include an 11-digit PIN number in which the first four digits are the year of birth, followed by a sequential seven-digit logic number.

According to a 2017 World Bank report, São Tomé and Príncipe had a remarkable improvement in its civil registration and vital statistics within a short period (2008–2014). Though the birth registration rate for children younger than five was 75 percent in 2009, it rose to 95.2 percent by 2014. This improvement is attributed to various factors, including the Decree (No. 45/2009) "National Strategy for Permanent Birth Registration" (ENRPN). The objectives of ENRPN were to modernize the country's civil registration and vital statistics systems, improve service delivery to both users and institutions, and reduce counterfeiting of civil registration and civil identification documents.

The entire system for civil registration and identification is being computerized as a result of reforms implemented to modernize the public administration. Over 90 percent of institutional births are registered in maternity wards, and data from the maternity wards are sent to the Civil Registry

Office periodically. In addition to the existing 15 registration centers in the country, five new registration centers were added at the maternity wards.

The introduction of the new registration software, the CivID1.1, played an important role in increasing registration. CivID is a digital civil registration and identification system used for registration of births, deaths, and other vital events. It is also used for the issuance of national IDs. Digitization of the birth registration system was a major factor in increasing registration, as were improvements in infrastructure, adequate staffing, training, and the launch of the national ID and personal identification number. The next software iteration—CivID 2.0—will introduce electronic registration of birth, with options to print certificates. At the same time, it will be possible to save civil registration and vital event entries as PDF documents. CivID 2.0 will introduce mobile registrations, and registration will cover all vital events.

national ID. The DGRN is also responsible for national identification, notary services, and registrations of criminal records, vehicle, land, and businesses. The history and legal frameworks for the national ID in São Tomé and Príncipe are rooted in colonial times, and the Decree addressing the national IDs dates back to 1971, though the IDs themselves have been issued since 1961. The civil identification law, Decree 251/71 of June 11, governs civil identification and the issuance of identity cards, called the *bilhete de identidade*. National IDs are not mandatory. The current national ID is laminated and contains an individual number, nationality, full name, affiliation, DOB, marital status, photo, fingerprints, height, and signature. The individual numbers on the national ID cards and birth certificates are not the same.

Applications to acquire national IDs may be submitted at any of the DGRN registration offices. The applicants submit an application form, fingerprints, two photographs, and a service fee. Replacement of an expired ID requires a birth

Birth registration 5.0 REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE National ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE National ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE

SÃO TOMÉ & PRÍNCIPE

certificate. There are no available coverage data for national identification, but anecdotal evidence suggests that most of the voting age population has a national ID. The biometric data captured are not sufficient for authentication purposes.

The next generation of national IDs, and the upgraded CivID 2.0 software, will allow for biometric authentication and envisions a contactless chip for new national IDs. A personal data protection law was passed in 2016.

SENEGAL

Registration (Centre national d'état civil), is responsible for birth registration in Senegal. Birth registration has been carried out since 1730 and is offered free of cost when registered within 45 days of birth. Birth registration is a prerequisite for school enrollment and access to health services. According to UNICEF, the institutional birth rate is 72.8 percent, and below five birth registration rate is 74.6 percent. The WHO states that the vital statistics system of Senegal provides incomplete data and faces reliability problems. The country's is trying to modernize its vital statistics system.

Senegal piloted a mobile VRS system in collaboration with NGOs, local governments and a telecom operator (Orange). In the context of the difficulty the village chiefs faced in sending birth information to the regional and national registration office, an initiative was launched in which mobile operators equipped them with birth registration software that could easily capture information and send it to the Senegal State Register. The National Registration Office has a special mobile phone to collect information sent by village chiefs. The Chiefs are issued a special birth registration number that can be used to collect a birth certificate from the registration office. Birth registration can be carried out by the father, mother, parents, close relatives, doctor, nurse, midwife, the village chief, district delegate or public prosecutor. Birth registration beyond 45 days of birth is noted as late declaration and registration beyond a year requires the approval of a court.

National D. In 2005, the Senegalese government announced they would issue digital national ID cards for all citizens. 174 registration centers were set up for issuing digital identity card throughout the country. Senegal has

been issuing e-IDs since 2005 which are being used for civil, social security and voting purposes and 67 percent of the population has either a national ID or voter ID. The Senegalese ID has bar code with biometric information along with biographic information. The electronic ID is used for multiple e-services.

Senegalese citizens who are at least five years old may apply to obtain a national ID card and, citizens who are 15 years and above must obtain a national ID card. Individuals who have no ID or outdated ID must pay a penalty of CFAF 6,000 (US\$10) for the first time, and CFAF 12,000 (US\$20) if it happens again. The Senegal national ID card is valid for ten years and must be renewed after 10 years, the initial issue and renewal can be done for a price of CFAF 1,000 (US\$1). In case the card is lost or stolen it costs CFAF 6,000 (US\$10). The NID applications can be requested at the police station, the gendarmerie brigade or the prefecture or subprefecture where the applicant resides, the application takes up to two weeks for processing.

In 2014 (December), the Senegal government issued another statement that they are preparing to roll out smart IDs and voter cards for all their citizens. This project was initiated to mitigate identity theft and electoral fraud. The smart ID cards were conceived to improve the reliability and efficiency of the administrative domain. The previous ID (bar code id) would be discontinued, and the smart cards (national ID + voter ID) would gradually replace the previous ID cards. Senegal presently has a law for data protection namely the Loi sur la Protection des Données à Caractère Personnel (2008) and its data protection agency is known as the Commission des données personnelles.



SEYCHELLES

Birth registration. Department of Immigration and Civil Status, Ministry of Home Affairs and Transport is responsible or birth registration. Civil registration has been documented since 1794. The process of birth registration is carried out free of cost. It is mandatory to register a child within 30 days of birth. Birth registration must be carried out by the parents at the regional office. Parents must produce their maternity certificate, and both their national ID cards. Besides the parents, two witnesses must be present along with their ID cards at the time of declaration. The Civil Status Office also issues birth certificates. The applicant must produce any document with the national identification number (NIN), e.g., a national ID card, passport, or driving license. The cost of a long-form birth certificate is SR 50 (US\$3.78). The Department of Civil Status was digitized in 1989, after setting up a National Population Database (NPD) in 1988.

The Department of Immigration and Civil Status is also responsible for national IDs in Seychelles. The NIN was introduced in 1988 and made compulsory in 1995. Seychelles maintains paper records and a computerized record for NPD use. The NID number contains information about the individual and is generated by

combining the year of registration, folio number, the place of registration and sex of the individual. Seychelles mandated all residents to obtain a national identity card. The applicants need to produce a birth certificate and certificate of registration or naturalization. Expatriates need to submit passport, GOP, dependent permit and residence permit. The national ID card must be returned to social security or ID card office after the cardholder is deceased and in the case of foreigners when they leave the country.

The national ID card is an electronic ID card that can use for remote transactions. The credentials required for residents to access the E-services gateway include the NIN and a password. Before accessing e-services on the e-service gateway, individuals must be registered and verified by Department of Information Communications Technology. Individuals and organizations can access this e-service gateway. Individuals need an E-ID and password, while organizations need a separate access code in addition to an e-ID and password. The Seychelle's Law for Personal Data Protection was introduced in 2002. However, as of January 2014, this act was still not in force nor was the Data Protection Agency established.



SIERRA LEONE

Birth registration. The National Office of Births and Deaths, in the Ministry of Health and Sanitation, is responsible for birth registration in Sierra Leone. According to UNICEF, the present birth registration rate is 78 percent and the institutional birth rate is 50.1 percent. Act No.11 of 1983 mandates registration of all births within 30 days. Birth registration is offered free of charge. According to Article 18 of the Act, if a child is born in a hospital or clinic, the medical officer, midwife, nurse, or any other person in charge at the hospital, is responsible for registration. If a child is born at home, any medically trained birth attendant who is present is responsible; if there is no such attendant, the parents or head of the household are responsible for registration.

Birth registration is decentralized and managed at district health management clinics in 14 districts around the country. These clinics are known as peripheral health units. There over 1,222 health facilities across the country where births can be registered. A birth certificate can be obtained for a fee of Le 5,000 (US\$0.66); this is also the fee for replacing a birth certificate.

The civil registration process in Sierra Leone is still in its infancy and heavily dependent on other health care service providers and NGOs. Sierra Leone is in the process of consolidating its civil registration processes.

ID. In 2001, Sierra Leone set up an ID program and began issuing national ID (NID) cards. The NID was issued upon application for citizens of any age, at no cost. The National Registration Secretariat (NRS) of the Ministry of Internal Affairs is responsible for issuing NIDs. In 2013, the NRS revealed that only 400,000 NID cards had been issued, and the secretariat was unable to process more than a million pending cards. The process was discontinued, and the NRS is revamping the country's ID systems.

In 2012, Sierra Leone initiated its first biometric voter registration and successfully captured the biometric information

of 2.7 million voters. It was estimated that the cost of voter registration was Le 75,333 (US\$10) per voter, and a smart card that the country plans to introduce may cost Le 120,579 (US\$16). The country's various cards are not interoperable, there are no mechanisms to link the identities across the different identity registers, and the data they contain is often inconsistent and has been described as unreliable.

Sierra Leone is one of the three main countries that were severely affected by the Ebola crisis. The country is in the process of reforming its civil registration and NID systems. A new agency, the National Civil Registration Authority (NCRA), was recently established, which merges the civil registration and national identification agency under a single authority under the National Civil Registration Act of 2016. According to the World Bank, a task force on civil registration is focusing on developing and issuing NID cards with biometric data, merging existing civil registration and electoral databases, and developing a roadmap for future integrated identity management.

Sierra Leone aspires to create an integrated national civil registration system (INCRS). The INCRS will enroll the entire population using biometrics, and establish an institutional framework necessary for digital identity. After enrollment, the agency will harmonize its records with those of the National Election Commission and the National Social Security Insurance and Trust (NASSIT). Authentication through a multi-application smart card will create a unified and nonredundant legal, policy, and regulatory framework that will cover all aspects of identity.

Sierra Leone does not have any legislation for personal data protection. As a part of its civil registration reform, it is expected to define digital identity as a legally recognized category and therefore seeks to establish an omnibus National Data Protection Act to supplement the NASSIT Act on privacy and data protection. Similarly, the Telecom Act of 2009 is being updated to include provisions for privacy and data protection related to electronic data, which could affect digital identity data.

Birth registration 1.2 REGISTRATION REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE National ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE National ID REGISTRATION REGISTRATION CENTERS PER 50,000 PEOPLE

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African countries to establish a civil registration that dates back to 1904. Today, in the wake of decades of conflict and a weak state, Somalia has one of the lowest birth registration rates in the world. The existing system is not integrated or centrally administered. Mayors issue municipal ID cards and register births and death and issue certificates.

According to UNICEF, the present the institutional birth rate is 9.4 percent and the birth registration rate in Somalia is 3 percent. In January 2015, Government of Somalia ratified UN Convention on the Rights of the Child, following which the government is planning to start investing in the wellbeing of its children and prioritize establishing a CRVS system. According to a World Bank internal report, municipalities like the capital of Mogadishu register the birth and issue birth certificates to its residents. However, this is not a coordinated effort. The records are manual and paper based, not digital. A draft citizenship law has a section that mandates registration of all live births in Somalia.

National ID. Somalia does not have a single national ID but rather several fragmented identity initiatives including the Benadir ID card, Puntland ID, Passports, Clan based electoral lists, and Somali national registration. There is a market for counterfeit IDs placing serious doubt on Somali travel documents. Some of the key challenges that Somalia faces to establish a national identity system include lack of trust in the system by citizens, lack of any legislation about personal data protection, high cost, and lack of interoperable systems. The World Bank has recommended setting up a foundational identity system that can be used for multiple services such as banking, government transfers to the poor and other programs.

The international donor community will shortly issue a report with recommendations for improving the identification system with an emphasis on fostering sound elections and pursuing important development objectives.



SOUTH AFRICA

Affairs is responsible for birth registration in South Africa. Birth registration must be completed within 30 days of birth. It is mandated by the Birth and Death Registration Act, 1992. The parents or guardian must fill out the B1-24 form and dispatch it to the nearest office of the Department of Home Affairs in South Africa to complete the birth registration. An unabridged birth certificate is issued free of charge a day or two after the child is registered. However, these certificates are issued only to South African citizens by birth or naturalization. According to UNICEF (2013), the institutional birth rate is 88.7 percent, and the birth registration rate is 93 percent.

Late birth registration after 30 days but within a year of birth must be completed with form BI-24 and a written explanation by parents/guardian on why the birth was not registered. For registering births after a year but within 15 years one must provide an affidavit with other supporting documentation such as hospital certificate, school verification letter, baptismal certificate, clinic card, school reports, etc. In case the applicant is above 15 years of age, he/she must be a South African citizen or permanent residence permit holder with a valid South Africa identity document.

National D. The Department of Home Affairs is also responsible for national IDs. All South African citizens and permanent residents who are 16 and above are eligible

to apply for national IDs. Before the introduction of the modern NID cards, South Africa had a NID book with very high coverage, about 48 million individuals had this NID book. The smart ID card stored biometric and biographic data of all South Africans in one single system and replaced the old civic and immigration identity systems. In February 2015, the government of South Africa set up a pilot to roll out the national smart identity card in collaboration with the country's banks. The smart ID roll-out is expected to be a seven-year long process. There are 425 office across the nine provinces of South Africa that carry out NID enrollment.

The national ID card contains information of the cardholder in text and braille, the data of birth, user's signature and other information fields. The card also has a range of security features such as card number, multiple layer image containing two elements (RSA and security number), line ID bar code (code 39). The card also has a PDF417 type bar code, a photograph of the cardholder on both sides of the card, optical variable ink, and invisible design printed that can be viewed only when exposed to UV light for security. South Africa's Protection of Personal Information Act, 2013, clearly outlines the definitions and purpose, conditions for lawful processing of personal information, exemptions, prior authorizations. This personal data protection law also defines the various codes of conduct, the rights of users, Trans-border information flow, enforcement procedures in places, offenses and penalties, and general provisions.



SOUTH SUDAN

Birth registration. South Sudan has been issuing civil documents since it became independent in 2011. The processes are the same that had been in operation prior to independence. According to UNICEF, children below age five represent 18 percent of the population, but the birth registration rate for the population age zero to five is not reported in the standard UNICEF tables.

Birth certificates and age assessments are available to residents of South Sudan. Children born in hospitals are issued age assessment certificates by the health commissioner which can be used to obtain a birth certificate. The age assessment certificate contains the child's full name, the parents' name, the city and state of birth, and the date of birth. Age is estimated based on, among other items, information obtained from the parents, clan elders, a dental exam, and measurement of the head's circumference. Presently, age assessments are processed in the capital, Juba, although there are plans to decentralize this process. Recent studies suggest that the present birth registration rate for those below five years is about 35 percent. In 2013, South Sudan launched compulsory civil registration at childbirth in an attempt to document every South Sudanese citizen. The initiative will be implemented in collaboration with various UN agencies and ministries. Civil registration will become continuous, permanent, and mandatory.

A bill for civil registration has been created with technical support from UNICEF. This bill has been passed by the cabinet and awaits a decision of the national assembly. Once the

bill is passed, a department for civil registration will be created under the Ministry of Interior. This department will be responsible for civil registration, and the issuance of birth and death certificates. It will also oversee national identification, documenting marriages and divorces.

ID. The Directorate of Nationality, Passport, and Immigration in the Ministry of Interior is responsible for issuing national IDs (NIDs) in South Sudan. The cost of a NID is SSP 30 (about US\$5) or SSP 45 (US\$11). South Sudan officially launched passport and ID cards for the first time in 2012. NIDs are issued to individuals 18 years or older and are mandatory.

To obtain an NID, the applicant must produce a birth certificate or an age assessment certificate. The NID enrollment process requires one witness and capture of the applicant's biometrics. The NID card is a bar code card that contains biometric (fingerprint) and biographic information, and is presently used for civil and voting purposes. People who fled South Sudan during the civil war and have since returned have difficulty attending school or finding work since they do not have NID cards. In 2013, the United Nation's High Commission for Refugees provided free NID cards to 1,000 South Sudanese refugees; in 2014, biometrics registration and ID issuance were conducted for internally displaced persons. This service will be extended to support people with specific needs, including unaccompanied minors, separated children, and child-headed households. South Sudan also issues biometric nationality certificates. To date. 1 million such certificates have been issued.



SUDAN

Birth registration. The Central Bureau of Statistics is the government entity responsible for birth registration in Sudan, which has registered births since 1929. Registration must be carried out within 15–30 days of birth, and it is offered free of charge. According to the 2006 Sudan Household Health Survey, less than one third of children in Sudan have birth certificates. Children without birth certificates cannot access social services such as education and health care, and the lack of documentation of age leaves them at risk for underage recruitment into exploitative child labor and trafficking. In Sudan, children cannot enroll in school without a birth certificate.

National ID. The Department of Passports, Immigration, Nationality, and National ID Cards, in the Ministry of Interior Affairs, is responsible for issuing Sudanese ID cards. Application for the national ID (NID) cards must be done in person. Before the government lifted the emergency, anyone without a NID card was at risk of being arrested. The NID card is mandatory and contains the name, date of birth, address, fingerprint, signature, and blood group of the cardholder. The main identity documents carried in Sudan include the NID card, citizenship identity document, driver's license, birth certificate, and passport.

The previous Sudanese ID card was paper-based and handwritten. It contained the thumbprint, a photo of the ID cardholder, blood group, place of issue, date of issue, and signature of the administrative director of Passports, Immigration, and Nationality. This ID card was valid for five years. The new ID card has all of the information digitized in Arabic, except for the date of birth, house number, block number, and ID card number. The card contains a photograph of the cardholder, thumbprint, signature of the responsible official, and place and date of issue. Sudan began issuing electronic passports to its citizens in May 2009; the e-passport contains a microprocessor chip that contains the holder's information in addition to fingerprints.

According to the United Nation's High Commission for Refugees (UNHCR), there are more than 2 million internally displaced people in Sudan, including 150,000 refugees. Hundreds of thousands are at the risk of statelessness, face acute poverty, and lack of access to health care, education, and employment. The UNHCR has worked closely with UNICEF and other international NGOs to address statelessness among refugees, provide national documentation, and reduce obstacles to birth registration.



SWAZILAND

Birth registration. The Department of Civil Registration under the Ministry of Home Affairs is responsible for civil registration in Swaziland. Birth registration is mandatory and must be carried out within 60 days of birth. Civil registration was initiated in 1900, and the birth registration process has been carried out since 1927. Presently, birth registration is governed by the Birth, Marriage, and Death Registration Act No. 5 of Swaziland, 1984.

According to UNICEF (2013), the birth registration rate for children below age five is 49.5 percent, and the institutional birth rate is 80.4 percent. Late registration must be authorized by the registrars, and the applicants must submit certain prescribed forms and pay a penalty. Birth certificates are issued to all citizens and residents whose births are registered. Applicants born abroad must submit a BMD1 form (notice of birth) signed by a parent, along with supporting documents such as a notarized copy of the child's foreign birth certificate, an original or certificate copy of the parents' marriage certificate, and proof of Swazi citizenship. There are 11 birth registration points in addition to a mobile registration truck and a pilot registration point at one hospital.

In 2005, the Registrar of Births, Marriages, and Deaths, Ministry of Justice and Constitutional Affairs, collaborated with UNICEF to launch a birth registration campaign. The late fees associated with birth certificates (E 5.00, or US\$0.39) were waived, and free birth certificates were provided to orphaned and vulnerable children without parents or living in rural areas. This community-based approach to take the birth registration service to the people engaged the chiefs, community leaders, and regional secretaries. The participating leaders were given the responsibility of providing registration facilities and encourage birth registration among their community members. Communication tactics such as radio broadcasts, newspapers, pamphlets (in English and

SiSwati) were used to inform people about the process of birth registration. The campaign reached out to 131 of the country's 360 chiefdoms, and 43,528 children were registered during the campaign. Among the registered children, 17,129 were single-orphaned children, 6,159 were double-orphaned children, and 11,603 were classified as vulnerable.

According to the 2011 Multiple Indicator Cluster Survey (MICS), of the 50 percent of children below age five who have been officially registered, only 30 percent have birth certificates. Birth certificates are issued to Swazi citizens and legal residents. A birth entry number and a unique system-generated personal identification number (PIN) is allocated to individuals documented in the population register using the birth certificate.

National ID. The Ministry of Home Affairs is responsible for issuing national IDs (NIDs) in Swaziland. The country had a paper-based ID that had been issued free of charge since 1971. The present NID, issued since 2000-01, is an electronic ID card that captures a user's biometric information, which is saved in a database and used for deduplication. The card includes the cardholder's full name, date of birth, chief code, personal ID number (PIN), and sex. It also contains a bar code, document number, and date of issue on the back. Initiatives such as the Swaziland Disability Rights and Inclusion Project (SWADRIP) implemented by Save the Children and Christoffel Blindenmission Deutschland (CBM-Germany) aim to ensure access to birth certificates and NID documents to people with disabilities in Swaziland. The registrar assigns a unique PIN to individuals documented in the National Population Register. The PIN is used to obtain an NID when an individual turns 16. The PIN is 13 digits, comprising serial, index, and control numbers. Swaziland does not have any personal data protection legislation, nor has it established a data protection agency.



TANZANIA

Birth registration. The Registration, Insolvency, and Trusteeship Agency (RITA), in the Ministry of Justice and Constitutional Affairs, is responsible for civil registration in Tanzania. Birth registration is governed by the Births and Deaths Registration Act of Tanzania. The act was revised in 2002 to make birth registration mandatory within 90 days of birth. While this law still governs civil registration in mainland Tanzania, a separate law governs civil registration in the autonomous region of Zanzibar. According to UNICEF, the institutional birth rate is 50.2 percent, and the birth registration rate for children below five years of age is 16.3 percent. The 2012 census states that only 15 percent of the population has a birth certificate.

In order to complete birth registration and receive a birth certificate, parents must visit a RITA office to report the birth, then return to retrieve the birth certificate, which could be issued up to 90 days later. Presently, RITA does not have offices across all the Tanzanian districts, making access in remote areas difficult. Another barrier for low-income families is the cost associated with birth certificates, which was T Sh 3,500 (US\$1.50) until 2013. Presently, birth certificates are issued free if the birth is registered within 90 days, but charges remain for delayed registration (after 90 days) and late registration (after 10 years).

Initiatives are under way to improve civil registration. RITA aims to have 90 percent of newborns registered within 90 days, and to provide birth certificates to 70 percent children under five years of age by 2019. In order to achieve this, RITA is digitizing its processes and systems. These reforms will allow health workers and local government officials to report births to RITA electronically, and will enable birth certificates to be printed on demand at district offices. UNICEF has been working with RITA to raise awareness of the importance of birth registration among parents. Tigo, a telecommunications firm, has piloted birth registration through SMS and smartphones.

National ID. The National Identification Authority (NIDA) is responsible for the national ID system. NIDA was established in 2008 under the Ministry of Home Affairs, which is governed by the Registration and Identification of Persons Act of 1986 (amended in 2014). The biometric national ID project was launched in 2011 with the aim of providing all citizens, legal residents, and refugees who are over 18 years old (approximately 25 million) with contactless multipurpose smart cards having an 80 KB capacity. Aside from electronic identity verification and fraud prevention, the smart card will also serve as a driver's license and enable digital payments. The national population registry underlying the system holds 74 fields for each record, including 10 fingerprints for biometric verification. Each registered resident receives a 20-digit national ID number. This is a logic number, with the first eight digits corresponding to the DOB of the user, the next five digits corresponding to the place of registration, a sequential five-digit number and, finally, two checksum digits.

NIDA sought to set up Tanzania's foundational identification system, which can boost government initiatives to address corruption, raise revenue, eliminate leakages, and increase access to health care, education, and financial services. Similarly, the government intends to use the unique national ID numbers to strengthen the integrity of government programs that have been found to have leakages, such as conditional cash transfers and civil servant payrolls, and to facilitate the extension of pension and health insurance coverage.

From 2013 to 2015, 6.3 million residents were registered in Dar es Salaam, Zanzibar, Pwani, Lindi, Morogoro, Mtwara, and Tanga. Approximately 2.7 million of the registered residents received their national ID cards. In parallel, the National Election Commission (NEC) registered, issued cards, and removed duplication among 22.7 million voters in less than a year before the 2015 elections, using 8,000 biometric voter



TANZANIA

registration kits. In 2016, in an effort to accelerate the registration of residents, NIDA began to import individual voter records held by NEC in order to preregister 90 percent of the population.

NIDA has shifted focus toward issuing national ID numbers, while strengthening its capacity to offer online verification with just a number and a fingerprint scan. As of March 2017,

NIDA has not completed the migration and deduplication of these data from the original 6.3 million registered residents. NIDA is in the process of establishing offices in 150 of Tanzania's 189 districts. These offices will register residents as they turn 18. In the future, NIDA plans to integrate with the civil registration system, with the possibility of issuing national ID numbers to newborn children at the time of their birth registration and extending its coverage from birth.



Health is responsible for birth registration, which has been carried out since 1923. Birth registration is free of charge and must be done within 45 days of birth. According to UNICEF, the institutional birth rate is 66.5 percent and the birth registration rate for children below five years of age is 77.9 percent. A UNICEF study revealed that nearly a third of children residing in rural areas were not registered. The primary reason for lack of birth registration is that parents do not understand the importance of having birth certificates.

The Ministry of Territorial Administration, Decentralization, and Local Government is responsible for issuing birth certificates, which cost CFAF 611.84 (US\$1). Children may attend school until the sixth grade without any birth records, after which a birth certificate is necessary to obtain the primary school leaving certificate. Courts can issue late birth certificates, but the cost is CFAF 6,730.26 (US\$11), and those whose families cannot afford the fee often drop out of school. Another issue is that late birth certificates have been misused and constitute a main source of identity fraud. Sometimes parents opt for a late birth certificate in order to postpone a child's school enrollment.

Birth certificates can be instrumental in reducing child trafficking in Togo. There are community-led initiatives such as

a radio show produced by youth in Togo—I Am a Child, I Have Rights, Too—to promote the importance of birth certificates and birth registration.

Security, the Direction Générale de la Documentation Nationale (DGDN), the national documentation service, issues national ID (NID) cards and passports. NIDs have been issued since 2006 for a fee of CFAF 4,894.73 (US\$8). The NID is not an electronic ID card, but rather a plastic card with a personal ID number and a tamper-proof seal. It replaces the old paper ID, which was larger. The NIDs are not mandatory and it is estimated that fewer than 10 percent of all Togolese citizens have one.

The Independent National Electoral Commission (CENI) began biometric voter registration in 2014 ahead of the 2015 presidential election. The country used mobile enrollment kits to bring newly eligible voters into the system. During the voter registration drive, CENI used its existing database of 3 million records to check citizen records, as well as to remove all records of deceased and invalid records, including those that had been lost or duplicated. CENI verifies both demographic data and biometric data, using fingerprint recognition for the latter. After this two-step verification is complete, the citizens receive a printed voter card.



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Birth registration. Registration of births, deaths and marriages was introduced in Uganda in 1904, while it was still a British dependency. However, it only applied to Europeans and Americans residing in the country at the time. After Independence in 1962, the Births and Deaths Registration Act of 1964 was passed. Only a few years later a fundamental revision of the legal framework for birth and death registration led to the Births and Deaths Registration Act [Cap 309] of 1970. The new law made birth and death registration mandatory. Until 2016, birth registration—as well as death, marriage and adoption registration—was the responsibility of the Uganda Registration Services Bureau (URSB) under the Ministry of Justice.

When the Registration of Persons Act was passed in 2015, it transformed the national ID project that began in 2013 into a permanent agency, the National Identification and Registration Authority (NIRA). This law also replaced the Births and Deaths Registration Act of 1970 and transferred responsibility for birth and death registration from URSB to the newly established NIRA as of January 1, 2016, which is a key step toward realizing a national ID system built on a foundation of birth and death registration. The life-long, unique national ID number (NIN), for example, is now issued to a child at the time of birth registration.

Before the mandate for birth registration was moved to NIRA, a public-private partnership of URSB, Uganda Telecom Limited (UTL) and UNICEF developed the Mobile Vital Registration System (M-VRS). M-VRS enabled use of mobile phones and a web-based application to register births and deaths. Introduced in 2010 as a pilot project, M-VRS aimed to improve coverage and reduce the time lag in solely paper-based registration. Normally, it could take several months from the time a child was registered to the time their birth certificate would be received, especially when the child was not born in the hospital. M-VRS was introduced in 36 out of 112 districts. Birth registration was also brought into 135

government and private hospitals using M-VRS, so that registration takes place before mother and child leave.

While birth registration in Uganda is free, birth certificates are issued at a cost: US\$1.40 to nationals, US\$40 to non-nationals, and free to refugees. Under the 1930 Act, births had to be registered with the hospital administrator, subcounty chief or town clerk, following which a short certificate was issued that had to be submitted along with the fee to URSB, in order to obtain a long birth certificate. NIRA is working hard to streamline these processes and increase access to birth registration. It has opened offices in the 112 districts of Uganda and five districts of its capital, Kampala, which have a core staffing, and intends to also extend services toward population living too far from the new registration offices through mobile registration teams.

As of the 2014 census, birth registration coverage was 29.9 percent of children under the age of five years. Although this is low, it demonstrates a significant improvement from 1999 when the coverage was 4.3 percent.

Cially called the National Intelligence and Security System (NSIS)—was launched in 2010 as a collective effort of URSB, the National Information Technology Agency (NITA), Directorate of Citizenship and Immigration Control, Election Commission and Uganda Bureau of Statistics (UBOS), under the leadership of the Ministry of Interior. By 2013, 30,000 citizens had received their national ID cards as part of a pilot program.

The mass registration of all citizens aged 16 years and above commenced in 2014 under the theme "My Country, My Identity." Mobile teams were mobilized around the country, supported by the military for logistics and manpower. The objective was for the voting-age population to have a national ID card in time to be used for the elections that took place on February 18, 2016—an objective was largely fulfilled. Of

Birth registration **National ID** 0.30.3**BIOMETRIC REGISTRATION CENTERS** REGISTRATION REGISTRATION REGISTRATION **REGISTRATION CENTERS** RATE ID? PER 50.000 PEOPLE METHOD PER 50.000 PEOPLE



15.3 million voters registered with the Election Commission, 14.8 million were registered for the national ID card. Approximately 1 million citizens did not pick up the cards.

With the mass registration completed, NIRA spent its first year in 2016 transforming itself from a project to a permanent agency, including hiring full-time staff, establishing a headquarters, back office systems, business processes and its offices in districts. In April 2017, a new government regulation requiring all SIM cards to be registered with their verified NIN mobilized thousands of citizens who did not register during the mass registration or did not pick up their national ID card to do so. In the second half of 2017, NIRA will commence the mass registration of 5- to 15-year-old citizens in schools, which will involve issuing them with a NIN but not a card (cards are issued at age 16 when biometrics are collected) and requiring parents to have a NIN. This could help NIRA realize universal coverage of citizens aged five years and older. The SIM registration exercise and the effort in 2016 to verify all civil servants on the public service payroll in 2016 have demonstrated the importance of the national ID system to the public and other stakeholders.

The national ID card issued by NIRA is a secure card without a chip, containing a photo, signature and basic biographic details on the front and a bar code and machine readable zone on the back. It is free for citizens in the first instance. NIRA plans to issue special national ID cards to foreign residents and the approximate 900,000 refugees Uganda hosts in the near future. All ten fingerprints are collected at the time of registration, as well as a high-quality facial photo. At this stage, NIRA is developing its capacity to offer biographic verification services before it offers biometric verification in the near future. The Ministry of Gender, Labour and Social Development, for example, is planning to consolidate the management information systems for all social protection programs in Uganda into a single social registry that will use the NIN issued by NIRA as the unique identifier, with plans to introduce biometric verification. A data protection law is currently being considered by Uganda's parliament, and it could potentially offer an important safeguard for the security of the personal information that NIRA holds as it makes this information available to service providers such as banks, mobile network operators, hospitals and universities.

ZANBIA

Birth registration. The Registrar General of Births, Deaths, and Marriages, in the Ministry of Home Affairs (MOHA), is responsible for civil registration in Zambia. Civil registration has remained underdeveloped due to the lack of utility, widespread poverty, budgetary constraints and, most importantly, the highly centralized process. For instance, birth certificates can be issued only at the capital city of Lusaka. These factors have contributed to the country's low birth registration rate.

Birth registration was mandated by the Birth and Death registration Act of 1973. According to this Act, individuals who fail to give notice of birth or death within the given period may face imprisonment not exceeding one month or a fine not exceeding 200 penalty units. This is outdated, and the government is in the process of drafting a bill that addresses the contemporary challenges and technical advancements.

According to the World Bank, one of the main reasons cited for Zambia's low birth registration is that people do not see the value of having births registered. Zambians can use an affidavit in place of a birth certificate to enroll in school or university, for example. The distance from the village to the place of registration is another important obstacle that cannot be ignored. The birth certificate can take few weeks or even months to be processed, and involves complex procedures and follow-up. These factors demotivate parents from acquiring birth certificates for their children. There is a wide gap between the rates for birth registration and possession of a birth certificate.

Birth certificates can be obtained from the Registrar General of Birth, Deaths, and Marriage by producing a hospital record, baptismal certificate, or affidavit. In the case of institutional births, parents must pass the birth registration desk before discharge and register the birth. Nonetheless, the birth registration rate remains low. According to UNICEF, the institutional birth rate is 47.7 percent, and the birth

registration rate for children younger than five is just 14 percent. Birth certificates are essential to apply and obtain a National Registration Card, passport, and voter ID. Children who do not have birth certificates have what is known as the "under five cards." Decentralizing and simplifying the processes of birth registration can help improve birth registration rates. Similarly, authorizing the local district registrars to function as the certification authority can help close the gap between individuals who are registered and individuals who actually have a birth certificate.

In 2013, MOHA collaborated with UNICEF to launch a pilot initiative in three provinces to take birth registration services closer to communities by establishing a birth registration desk at health facilities. As a part of this initiative, 70 motorbikes were distributed to district registration officers, enabling them to collect and deliver applications and birth certificates. This project was successful enough that it will be scaled up to all seven provinces. In 2014, Zambia saw an exponential increase in birth registration for children younger than 5, from 10 percent in 2013 to 50 percent, due to its continuous efforts. At the same time, the birth registration rate among children aged 6–18 years increased from 10 percent to 30 percent.

The country has been an early adopter country of the African Programme for Accelerated Improvement of Civil Registration and Vital Statistics. The country conducted a CRVS assessment in 2014 and developed a national strategic action plan for 2015–2019. The government of Zambia is also investing in an integrated civil registration and identification system.

Tambia has a unique national identity management system, having had a national registration card even before independence. The Zambian government introduced the National Registration Cards (NRC) in 2013. More than 83 percent the eligible population over 16 years



ZAMBIA

of age have a NRC. The NRC is a low-tech national ID (NID) that captures certain minimum biographic information and biometric information (right thumbprint). A copy of the application is dispatched to the central office and the original application is retained in the district office. There are 105 registration points in Zambia. The country is in the process of digitizing this NRC data to migrate toward more advanced electronic ID system with biometric authentication. Over 8 million identification data points have already been digitized.

According to the World Bank, Zambia has multiple digital initiatives such as Zambia Vision 2030, and the "SMART Zambia Now" digital society initiative. All of these initiatives depend on the capacity of the citizens and residents to have their identities verified and authenticated. The National Registration Act of Zambia dates back to 1964 and governs the issuance of NIDs. This act is outdated and needs to be amended, factoring in contemporary challenges. Zambia does not have specific legislation for personal data protection, nor has it set up an agency for personal data protection.

ZIMBABWE

Birth registration. The Registrar General, in the Ministry of Home Affairs, is responsible for birth registration in Zimbabwe. Birth registration has been carried out since 1904 and is mandated by the Birth and Death Registration Act of Zimbabwe. According to the act, births must be registered within 42 days of birth, or by 12 months at the latest. Children younger than six years of age are registered free of charge, while those over six are registered for a fee of US\$2. For individuals born outside Zimbabwe, the registration fee is US\$50. The national ID (NID) of the parents is crucial to the process of registering the child and acquiring a birth certificate.

According to UNICEF (2011), the birth registration rate of children below five years of age is 49 percent and the institutional birth rate is 65.1 percent. The Zimbabwe Demographic Health Survey of 2010-11 found that significant factors affecting the likelihood of birth registration include the age of the child, paternal status as an orphan, association with the Apostolic Faith, caretaker's education status, household wealth status, place/facility of birth, and province of residence. Home deliveries are a major obstacle to birth registration, as the parent is supposed to submit a birth confirmation record to register a child. Only 32 percent of the children born at home are registered, compared to 54–63 percent of children born in health facilities.

The Registrar General has offices in all Zimbabwean administrative provinces and districts. A birth certificate is necessary in order to obtain a NID, passport, insurance, or pension, and is also required for school enrollment and formal employment. Birth certificates for citizens are issued

throughout the country by all district registries. Noncitizens must apply to the Registrar General at a central registry. Birth certificates cost US\$5 (for normal processing of five working days) or US\$10 (for urgent processing within 24 hours).

National ID. The Registrar General is also responsible for issuing NIDs, which were first issued in 1996. Zimbabwe's NID has a bar code with biometric information (thumbprint). In addition, it contains an ID number, full name, date of birth, village of origin, place of birth, date of issuance, and signature. Security features include a hologram, watermark, invisible personal information coded on the photo, UV fluorescence, and iridescent ink. The charge to the user is less than US\$5. The National Registration Act, Chapter 10:17, states that every citizen age 16 and above must register for a National Registration Document. The individual must produce a birth certificate as proof. Processing time to issue a synthetic ID is one day, and a "green copy" takes three days. The fee for ID documentation and fingerprint clearance is US\$1, while initial registration of persons who are above the age of 18 is US\$2. Replacement of a lost or defaced identity document costs from US\$2 to US\$10.

The Zimbabwe Population Registration System (ZPRS), established in 1996, maintains all essential demographic personal data related to registrations of birth, death, NID, marriage, voting, passport, and cattle brands. The ZPRS is a centralized database that can be accessed by any individual using their NID number and password. There is a personal data protection law in place.



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