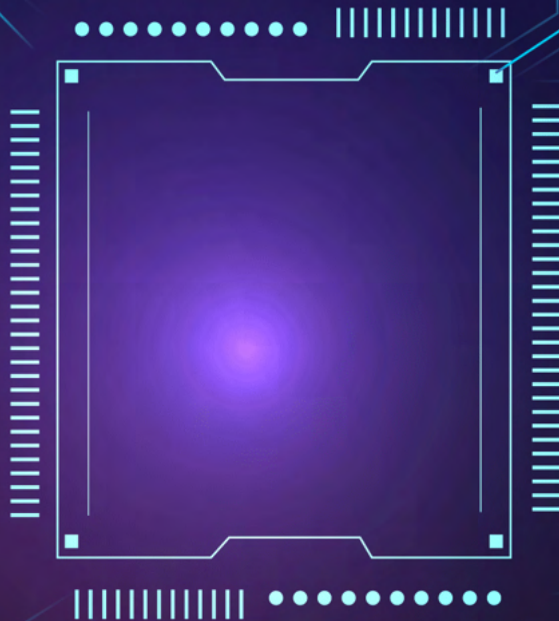


Digital ID in Kenya

(An Advisory Policy Paper providing
a roadmap to the implementation of
a Rights Respecting Digital ID
Regime in Kenya) 2023



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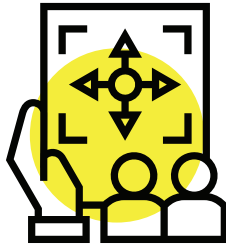
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Introduction



The Government of Kenya has prioritised improvement of service delivery to its citizens through leveraging Information and Communications Technology (ICT) in the reform strategy/agenda. Many of the services are also revenue streams for the government that it intends to place on a digital platform for improved access and efficient revenue collection. Digitalisation of civil registration and registration of persons through the introduction of a Unique Personal Identification (UPI) and digital identity are among the services that the government seeks to digitalise by the end of 2023.

The Directorate of Civil Registration Services (CRS) is responsible for civil registration while the National Registration Bureau (NRB) is responsible for registration of persons. These departments perform both provision of key services to the public and revenue collection from some of the services rendered. CRS and NRB have, therefore, been earmarked for program reforms which will see them transform their business process from the current hybrid of electronic and manual to a fully digitised end to end process.

Accordingly, the government proposes that a digitised registration system, which assigns a UPI at birth and a third generation digital identity should be developed to replace the current manual systems. The UPI will be assigned to all the documents of registration and identification such as National ID, Passport and Certificate of Birth. The UPI will also be assigned to functional databases such as KRA, NSSF, NHIF, NEMIS. Thus, once a person is assigned the UPI at birth, it will be linked to other government documents and services issued at a later stage in life. On the other hand, the third generation digital identity will fully digitalise the national identity system. This service will only affect the national ID.

This policy paper provides academic views on the next steps, the need, justification, principles, benefits and challenges of the UPI and digital ID in Kenya. It also provides a comparative analysis of the digital ID system successfully rolled out in India. Though not discussed at length, this paper also examined digital ID systems in Estonia, Mauritius, Germany, Portugal and Pakistan. This policy paper is, therefore, an advisory document.

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The Need for a Digital ID and Unique Personal Identification (UPI) in Kenya

In Kenya, there is a growing need for a UPI and digital ID system to address the various challenges related to identification and authentication. The current forms of identification, such as birth certificates, national identity cards and passports, are not fool proof and have limitations that hinder effective identification and authentication of citizens. The lack of a reliable and centralised identification system creates difficulties in managing social programs, providing essential services, and ensuring transparency and accountability in government operations. A UPI and digital ID system would provide a comprehensive and reliable identification and authentication system for all citizens that would reduce fraud, financial losses, and identity theft. It would also help to improve the overall security and safety of the country, as well as enhance the government's ability to provide better services to its citizens.



Furthermore, Kenya's current registration and identity eco-system has been in place for close to 30 years and has been overtaken by technological advancements. The eco-system urgently needs to be updated to align it to the 21st Century. This is especially important for Kenya to transit into a digital economy. Whereas Kenya is recognized globally for its regional leadership in technological advancements, the inability to overhaul the national registration and identity system means that other countries in the region have surpassed Kenya in their readiness for transition into digital economies. The earmarked upgrades are therefore not optional, for Kenya to compete regionally and globally, the current population registration and identity system has to be overhauled. Therefore, implementing a digital ID and UPI is essential to overcome these challenges and improve the quality of life for all Kenyan citizens.

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Principles for Digital Identity and UPI

3.1 General principles



1. Guided by Article 13 of the African Charter on Human and People's Rights, digital ID and UPI should protect the right to equal access to public services by ensuring that no person misses out on public services for lack of digital ID, and digital ID programmes, prioritising communities that have historically been barred from identity documentation and other public services. The state shall prioritise identity documentation for vulnerable groups within society, including women, older members of society, persons with disabilities, children, youth, members of minority or marginalised communities, refugee and stateless communities, and members of particular ethnic, religious or cultural communities. Provided that in prioritising access to identity to vulnerable groups, the state shall ensure that technology used promotes their fundamental rights and freedoms and protects them from harm.
2. Digital ID and UPI as tools through which people access services and are known by government and private agencies, should promote the national values and principles in Article 10 of the Constitution of Kenya.
3. In furtherance of Articles 11 and 44 of the Constitution of Kenya on the right to culture, digital ID and UPI should accommodate the diverse naming cultures of Kenyan people, including cultures where children are not named immediately after birth, those where children take up new names on initiation and those where children are adopted into other clans or families. This can be achieved by facilitating name changes without creating barriers for people whose names differ in various documents etc.
4. Digital ID and UPI should promote and not be a barrier to citizenship documentation in furtherance of Article 12 of the Constitution of Kenya.
5. Digital ID and UPI should not be mandatory for access to services to prevent abrogation of Article 27 of the Constitution on equality and non-discrimination. This is cognizant of the fact that people in Kenya face barriers in accessing citizenship documentation that is required to enrol for digital ID and UPI. These include lack of access to the internet and power, remoteness of government offices, capacity of government officers, and historical marginalisation. As such,

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- government and private entities using digital ID and UPI should provide alternative means of identification.
6. In furtherance of the right of access to information under Article 35 of the Constitution, government and private agencies should provide information regarding digital ID and UPI uses to the public and notify individuals where their personal data is accessed or breached. This includes information on technology vendors and the general terms of their contracts on matters such as ownership of data and intellectual property of digital ID and UPI infrastructure, hardware and software.
 7. Digital ID and UPI shall not be a hindrance to economic and social rights through denying Kenyans access to social services enumerated under Article 43 of the Constitution. Where a person, particularly the marginalised and vulnerable, seeks a social service but lacks digital ID and UPI, they should get access to the service and be assisted to get the digital ID and UPI.
 8. To protect the rights of the child in Article 53 of the Constitution, no child shall be denied access to services meant for children for lack of identity documentation.
 9. Any product developed on the digital ID and UPI platform, for example verification services, payment services etc. should protect consumer rights as envisaged under Article 46 of the Constitution. Government and private entities providing such products must guarantee safety for consumers, provide information about the services and be compelled to compensate consumers for harm arising from the products.
 10. The government agencies responsible for digital ID and UPI must provide avenues for fair administrative action for the public, including complaints mechanisms, appeal from administrative decisions related to digital ID, UPI and dispute resolution.

3.2 Data Governance Principles

1. Digital ID and UPI shall protect and promote the privacy of each Kenyan by not repurposing data about persons, their homes and property, and not unnecessarily requiring or revealing private data or communications.
2. Digital ID and UPI laws and policies shall adhere to the principles under section 25 of the Data Protection Act. In particular, it shall:-
 - a. Respect the right to privacy in the processing of personal data of a data subject.
 - b. Process personal data lawfully, fairly and transparently.
 - c. Collect personal data for explicit, specific and legitimate purposes.
 - d. Process data that is adequate, relevant and limited.
 - e. Provide a valid explanation on collection of personal data.
 - f. Accurately collect data
 - g. Store data only for as long as necessary.
 - h. Not transfer data outside Kenya without proof of adequate data protection or consent of the data subject.

3. In line with section 26 of the Data Protection Act, digital ID and UPI shall protect and promote the rights of data subjects to be informed of the use, to access, object to processing, correct false or misleading data and delete false and misleading data.
6. For good governance of the UPI and Digital ID system:
 - a) The Cabinet Secretary responsible for Digital ID and UPI should report annually to Parliament on the implementation of the Digital ID and UPI. The report could include statistics on identification of persons, technology procured, impact assessments, the storage, use and access to identification data, complaints by data subjects and how they were resolved, and any issues raised by the Data Commissioner or any relevant state agency and the remedial action taken where required.

3.3 Digital ID Technology Principles

1. The state shall procure the digital ID and UPI technology which most reasonably protects the rights under the African Charter on Human and People's Rights, Constitution of Kenya and other statutes.
2. The state shall guarantee equitable access to technology in all public offices and places where identification is required for access to services.
3. All identification technology, including algorithmic technology, shall be fully owned by the state. No private parties shall own any part of the technology or systems.
4. No person shall be denied access to a service because of lack of, or failure of technology or related infrastructure such as the internet or power.
5. Technology used in processing and storage of data collected and identification of persons shall provide optimal protection of data including ensuring access is only by authorised persons for the specific and legitimate purpose for which required. In addition, no information will be stored or required in/for a database not reasonably and legitimately required for the services for which that database is required.
- b) Access to data collected under Digital ID and UPI by parties other than identification and service providers should be prohibited unless authorised and be subject to judicial oversight as provided for under the law.
- c) Where there is permitted access under (b) above, users whose data has been accessed should be notified within 30 days of such access.

Institutions Responsible for Registration of Birth, Death and Persons in Kenya

4.1 Institutions Responsible for Birth and Death Registration in Kenya

4.1.1 The Directorate of Civil Registration Services

The Directorate of Civil Registration Services is one of the four directorates under the State department for Immigration and Citizen Services. The other Directorates are Immigration Services, National Registration Bureau, Department of Refugee Affairs, Integrated Population Registration Services, National Integrated Information Management System and eCitizen. Civil Registration Services whose mandate is registration of all births and deaths occurring in Kenya and births and deaths of Kenyans occurring abroad, avails the primary legal bio data required for identification and registration document issuance such as passports, National Identification cards and certificates of birth– CRS and personal identity echo system in Kenya (Primary and Secondary/Functional Systems).



4.1.2 Civil Registration Offices in Kenya

Registration of births and deaths is done in one hundred and forty Civil Registration Offices spread across the country. These registers are used to generate vital statistics necessary for national planning, preparation of certificates of birth and certificates of death and archived for future reference and other uses. Despite past attempts to introduce technology, review and improve the business process for these functions, the platform remains partly automated. These offices work with partners such as hospitals, local administrators and community health workers.

4.2 Institutions Responsible for Registration of Persons in Kenya

4.2.1 The National Registration Bureau

The National Registration Bureau (NRB) was established in 1978 to oversee the implementation of the Registration of Persons Act, Cap 107 (1947) laws of Kenya. The Act provides for the compulsory identification, registration and issuance of identity cards to all persons who are citizens of Kenya and who have attained the age of eighteen years or over.

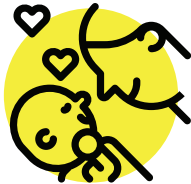
4.2.2 Registration Offices in Kenya

The National Registration Bureau operates over 817 registration offices at the Regional, county, sub county and divisional level. National Registration activities are also conducted in all Huduma Centers and in the diaspora.

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The Current State of Birth and Death Registration in Kenya

5.1 Overview of the Current State of Birth and Death Registration in Kenya



5.1.1 Historical Evolution

The current state of birth and death registration in Kenya has existed and evolved for over a century. In 1904, births and deaths registration was introduced in Kenya. In 1928, compulsory notification and registration of births and deaths of Indians, Americans and Europeans throughout Kenya was issued in the Births and Deaths Registration Act (Cap 149 Laws of Kenya). With regards to other races, there was only registration of deaths that occurred in municipalities only. In 1972, the Act was amended to include compulsory registration of all births and deaths occurring in Kenya regardless of nationality. In addition, the registration of births and deaths of Kenyan citizens occurring abroad were also included. In 1989, the Civil Registration Department (CRD) was tasked with registering all births and deaths occurring in Kenya. Later, it became the Civil Registration Service with more responsibilities in 2013. When applying for a national identification card, a birth certificate is required. In order to register in the electoral roll, a national identification card is required. However, these systems are not electronically linked.

In 2012, a National Registration and Identification Bill was drafted and introduced for the first reading in the Senate in 2014. The scope of the Bill has now expanded into the Huduma Bill, 2021, which seeks to harmonise and consolidate the law on registration of persons. It also seeks to provide efficient and accessible Government services through various integrated delivery platforms for the convenience of citizens; establish a National Integrated Identity Management System (NIIMS); assign unique personal identification numbers (Huduma Namba) to persons in a national population database; and provide easy mechanisms for the registration of births, deaths and marriage, among others.

In 2015, the Integrated Population Registration System (IPRS) was launched by the Government of Kenya. The purpose of this system was to transform public service delivery by providing citizens access to various public services and information from One-Stop Shop citizen service centres, commonly known as Huduma Centres. One of the roles of the Huduma Centres was to issue birth certificates when informants produce a birth

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notification document. The document is processed through an integrated technology platform. Thereafter, the civil registration system feeds into the IPRS and links with other registration agencies to provide data on the identity of citizens and foreign nationals. Most of the counties are currently operating Huduma centres. In an effort to improve governance, the government appears to be keen to make investments towards more secure identification. A new generation of cards was released in 2015 and there are plans to introduce digital IDs from 2023.

5.1.2 Civil Registration Statistics under the Current System

Since 2013, the CRS collects, compiles and disseminates vital statistics through its yearly vital statistics report. The Kenya National Bureau of Statistics (KNBS) has the legal mandate for the collection, compilation, analysis, publication and dissemination of “vital occurrences and morbidity” and the coordination of the national statistical system. The report presents tables, graphs and narratives on birth and death data collected from vital events registered by sex, place of occurrence and a few other background variables. It also has a chapter on causes of death. Vital statistics sourced from CRS has been disseminated through the Economic Survey and Statistical Abstracts published annually by KNBS.

The Ministry of Health (MOH) currently compiles the Cause of Death (CoD) statistics from its health institutions and maintains the database at national level. The Civil Registration Service also collects, compiles and disseminates causes of death data through its yearly vital statistics report.

Causes of death information obtained from CRS are also compiled and disseminated by the KNBS through the annual Economic Survey Report and Annual Statistical Abstracts. Deaths occurring in the communities are not routinely certified by qualified medical personnel. The national institution responsible for the registration of births and deaths in Kenya is the Civil Registration Department (CRD) within the Ministry of Immigration and Registration of Persons (MIRP). The CRD central office core functions are the processing, analysis, and dissemination of vital statistics from birth and death records. The CRD central office has five main divisions: Field services, Financial, ICT, Statistics and Training. The Statistics division is responsible for the receiving, compilation, analysis, dissemination and use of the information to facilitate policy formulation, management and planning, and monitoring and evaluation of registration services.

According to the latest statistics from the Kenya Vital Statistics Report, 14% of births and 45% of deaths were unregistered in 2021. One key reason for this is poorly functioning civil registration and vital statistics (CRVS) systems and processes.

5.1.3 Measures Taken by the State to Improve the Current System

In recent years, the Kenyan government has taken steps to address the challenges of birth and death registration. For example, the government has introduced mobile registration units, which can reach remote areas and provide registration services to communities that would otherwise be excluded. Additionally, the government has implemented online registration services, which aim to streamline the

registration process and reduce the burden on individuals. Despite these efforts, there is still a long way to go to ensure that all births and deaths are registered promptly, accurately, and efficiently.

The government needs to increase its investment in registration infrastructure, raise awareness of the importance of registration, and streamline the registration process further to improve the current state of birth and death registration in Kenya.

From 2008 to 2012, the Government of Kenya tried several small-scale pilot projects that use mobile technologies at various stages of the civil registration processes. For example, the Finnish Government funded a research project where NOKIA provided smart phones to community-based organisations in which the birth registration form (B1) was programmed into it. In the Monitoring of Vital Events with IT component (MoVE-IT) project, WHO piloted the use of mobile phones with RapidSMS, where community health workers notified the occurrence of births and deaths in two districts (Naivasha and Gilgil) in 2013.

The Civil Registration and Vital Statistics System (CRVSS) is being automated through a web-based electronic system. Moreover, the digitization of the system is also underway. Kenya has various strategic plans that set out clear priorities for the development of a well-functioning civil registration and vital statistics system. This is done by taking stock of challenges not resolved in the previous strategic plans and identifying new challenges and opportunities.

5.2 Challenges of the Current State of Birth and Death Registration in Kenya

According to recent statistics, approximately one-third of all births and deaths in Kenya go unregistered, which means that millions of people lack official documents to prove their identity, age, and citizenship. The problem is particularly acute in rural areas, where access to registration services is limited, and awareness of the importance of registration is low. Furthermore, the process of registering births and deaths in Kenya is complex and time-consuming, often requiring multiple visits to registration centres and the presentation of various documents, such as hospital records, identification documents, and witnesses.

The lack of birth and death registration has significant consequences for individuals and the country as a whole. For example, unregistered individuals may face difficulties accessing healthcare, education, and other essential services. They may also be excluded from social programs and benefits, such as pension schemes and insurance. Additionally, unregistered deaths can lead to difficulties in settling estates, property disputes, and inheritance issues, which can cause prolonged legal battles and family conflicts. The lack of reliable data on births and deaths also hinders the government's ability to plan and implement policies and programs effectively. In addition to the above, the following specific challenges exist in the current system:

5.2.1. Bureaucracy

There are not enough personnel and offices to serve all parts of Kenya. Historically, not all places had birth and death registries. Arising from this, it is difficult for the

public to correct inaccuracies or to update information such as change of name on the register. Further, very few offices for identity documentation create avenues for corruption, where those with means can pay extra to facilitate fast registration or updating of their documents.

Additionally, there are millions of historical records on births and deaths, dating from around 1905, that are being stored in bound volumes in the local CRO (original forms) and at CRD headquarters (duplicate forms). The records are susceptible to damage and loss. Retrieving the files may also result in corruption, where those who pay extra to facilitate get their information retrieved faster.

5.2.2. Backlog

Late and delayed registration of births and deaths leads to a huge backlog due to lack of ease of access to registration centres in remote areas. The backlog of birth registration is expected to continue until accessibility in terms of distance to registration offices and cost associated with registration are made easy and affordable for all population groups, including rural areas. Important to note, however, government policies e.g. NEMIS, led to rise in demand for registration even if there are capacity issues in the bureaucracy.

5.2.3. Societal Challenges

It has not always been the practice to register births, so some communities need education on why registration of birth is important. Some communities do not name children immediately, and registration processes are not aligned to their cultures. Examples of other cultures include cultures where names change for example after

initiation and birth registration hinders this as it is hard to change names.

5.2.4. Political Challenges

It is not possible to register a child at birth if the parent does not have the required documentation, for instance, an ID. This is because there was lack of clarity, in practice, on the relationship between birth registration and other citizenship documentation e.g. national ID. In addition, while some communities have known no other origins but Kenya or have been in Kenya for decades now, they are yet to be formally recognised. As a result, they lack relevant documentation and ability to register their children at birth.

5.2.5. Poverty

Where a child is born far from hospital and parents have no means to pursue immediate registration, the child may not obtain a birth notification within the statutory timelines to facilitate birth registration. Further, partners e.g. mission or private hospitals may have capacity issues, making it hard for communities depending on them to access birth registration.

5.2.6. Data Protection and Privacy

How the government practises data protection is also a challenge. They have not been a leader in best standards for data protection yet they are digitalising very critical functions. There are also gaps such as lack of data sharing codes between/ among agencies sharing data, lack of data protection impact assessments, lack of mechanisms through which citizens can exercise their rights as data subjects, and lack of mechanisms for complaints.

Current State of Registration of Persons in Kenya

6.1 Historical Evolution



Registration and issuance of identity cards is traced back to 1915 when the British colonial Government passed The Native Registration Ordinance. The ordinance made it mandatory for all adult male African natives aged 16 years or over to register and carry identification papers. Upon registration, they were issued with registration papers kept in metallic copper containers attached to a chain commonly referred to as “Kipande”. The registration was an instrument to control and regulate the recruitment of African males into colonial labour. It contained a registration certificate and fingerprint of the holder.

In 1947, a new law, the Registration of Persons Ordinance, was passed to make it mandatory for all males 16 years and above to be registered. The Kipande was replaced by an identity booklet (Passbook) which had fingerprints but not the bearer’s portrait. Under this new law, the identity cards issued distinguished between the protectorate and non-protectorate persons.

In 1978, an amendment was made to make the ordinance the Registration of Persons Act (Cap 107, Laws of Kenya). Registration age was raised to 18 years and above. The booklet was replaced by the “First Generation” paper identity card with new subtle security features embedded in the new document. The document design contained the bearers’ portrait and fingerprints. In 1980, the Act was amended to include registration of women.

The first generation identity card was replaced in 1995 by the smaller credit-card size “Second Generation” card, a laminated paper card. The card includes basic information [name, sex, date and place of birth, date and place of issue] , a photo, a signature and one fingerprint. It also includes a sequential 8-digit national ID number as well as a 9-digit serial number. The security features in the ID were significantly updated most notably through inclusion of a machine readable zone on the back through which the ID card can be authenticated. Personalisation and issuance of ID cards was centralised and automated with the enrollment process remaining manual and decentralised. In 2011, the 2nd Generation ID card was upgraded to the present Teslin based card without fundamentally

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changing its features. In Kenya, Identity cards play important roles in the socio-economic, security and political arena of the country. The ID card serves as a basis for a wide variety of public and private transactions and derivate identity credentials.

6.2 Situation Analysis

6.2.1 Operational Framework

The current ID card system is semi-automated. The system consists of identification and manual enrolment processes at field stations, central data processing, ID card production and data archival. ID data is stored in a centralised database and shared with the Integrated Population Registration Services (IPRS). IPRS is connected to Government Ministries, Departments and Agencies (MDAs), and all financial and telecom institutions to allow for a person's identity verification. The current second generation system however cannot support the digital identity functionality and therefore needs to be upgraded.

The department has established an Automated Fingerprint Identification System (AFIS). The system manages data of all registered citizens, refugees and foreigners on the platform of fingerprint biometric technology which enhances accuracy and reliability of data. The system matches fingerprints of an application to fingerprints stored in the database and helps detect cases of double and illegal registration. This system is used for verification of ID by authorised agencies. However, the current AFIS system is non-inclusive as it only uses fingerprint biometry and therefore excludes persons

who cannot provide fingerprints biometrics. NRB operates an Electronic Document Management System (EDMS). The system electronically stores scanned statutory registration records (Reg. 136 a). Currently the system hosts 37 million registration records.

Live capture units have incrementally been introduced at registration centres where ID applications are captured and data transmitted in real time to a centralised production centre. This system has led to drastic reduction of time taken to issue duplicate ID cards and retrieve information thereby reducing cost of doing business and improving service delivery. The LCU system is currently limited to duplicate applications and they also have a limited biometric scope i.e. fingerprints. Currently, 345 live capture units have been installed at Regional offices, county registration offices, Nairobi Sub County offices and all Huduma centres. There is a need to cascade the Live Capture Units to all Sub Counties.

6.2.2 Current Card specifications

The current ID card is teslin based and does not have an integrated chip. The card includes basic information [name, sex, date and place of birth, date and place of issue], a photo, a signature and one fingerprint. It also includes a sequential 8-digit national ID number as well as a 9-digit serial number and security features.

6.3 The Proposed 3rd Generation ID Card (Digital Identity) System

6.3.1 The 3rd Generation Card Specifications

The 3rd Generation ID card will be a secure polycarbonate state-of-the-art electronic

card installed with a readable chip and QR/ cryptographic code for data storage and retrieval to enhance validation of the card by user agencies. The card will contain a photo image of the applicant, thumbprint, ID number, card serial number, biographical data, residential particulars of the applicant and high end security features.

6.3.2 Systems Specifications

1. Adoption of an open standard National Identity Management system that is completely vendor neutral i.e. it should be compatible with hardware and software from different vendors thus avoiding vendor locking.
2. Upgrade the central ID processing system from an Automated Fingerprint Identification System (AFIS) to an Automated Biometric Identification System (ABIS) to allow biometric identification of person's who might be unable to provide fingerprints.
3. The adopted National Digital Identity Management system must have interoperability with Kenya's current identity management systems including AFIS to support migration of the 2nd Generation AFIS data to the new ABIS system. The System should also be vendor- neutral so as to allow Kenya to integrate any hardware or software acquired during the various efforts to overhaul the current ID system. The new ID system adopted must be able to import data from the current ID system without loss of the quality of biometric data. The system should also support integration with already acquired ID card personalisation equipment and systems.
4. Full automation of the registration and enrollment process to conform with the world's best practices. Automation should encompass the whole process from enrollment, verification to card personalisation. Alongside the core identification sub-system, a business workflow management subsystem that ensures traceability of any registration event and a document management subsystem to track and store electronic documents and scanned images of application support documents should be provided.
5. End-End Business Information Management Sub-system with inbuilt reports & statistics generation and exceptions & anomalies management.
6. National Public Key Infrastructure (PKI) to support the optional/ on demand creation of a secure tamper proof digital identity for registered Persons to support online authentication and therefore online access to government and commercial services.
7. The system should adhere to privacy by design principles which ensures that registered persons have control over sharing of personal data especially when the data is shared with private entities e.g. Financial institutions and telcos.
8. Web Portal, USSD and mobile App systems to diversify ways in which registered persons can interface with the system e.g. when updating personal data or authorising data sharing.
9. Upgraded database with modules (e.g. block chain) that would interconnect

the underlying databases of the National Registration Agencies: NRB, CRS, IPRS, DIS, E citizen. This would for example give secondary registration agencies view only access to validate foundational data and ensure that changes/updates by authorised agencies as per their mandate are simultaneously corrected/changed across the databases of all the agencies and keep track and archive historical changes/updates to data. Unalterable data (e.g. Date of birth in early birth registration instances) would be immutable and any players who attempted to change it would be identified.

10. Database access management control that regulates data access rights i.e. who, when, where and what data can be accessed. The database should also support a data sharing consent management tool so registered persons can be prompted to give their consent when their data is shared with third parties in line with the data Protection Act.
11. Advanced end to end security including in database encryption, backup encryption and network encryption (ensure that data is encrypted even during any data transfer/sharing).
12. Advanced data analysis algorithm e.g. hierarchical structures/data trees that allow operators to analyse the interconnection between data sets e.g. family relationships thereby eliminating fraud in Identity registration.

6.3.3 Rationale

1. Improvement of the national identification ecosystem would improve access to legal identity registration services thus help Kenya to conform with UN SDG goal 16.9 which provides for access to legal identity for all.
2. Kenya is signatory to the East Africa Common Market Protocol that requires member countries to issue electronic national ID cards which conform to the International Civil Aviation Organisation (ICAO) prescribed standards for travel documents.
3. The underlying production technology has been in place for 28 years and has reached an unattainable level of obsolescence, therefore needs to be replaced with modern technology.
4. The current registration process is manual, labour and time intensive which cannot be justified in the 21st century.
5. Advancements in ICT and identification technologies have made the card increasingly vulnerable to counterfeiters due to the outdated security features.
6. While the current 2nd generation ID has been upgraded to plastic (Teslin) material, teslin cannot support an integrated chip. The adoption of polycarbonate material would allow for the inclusion of a chip and enhance the functionality of the card by allowing other authorised agencies to validate the card.
7. The current AFIS system primarily uses fingerprint biometrics for personal identification inclusion of

- other biometric e.g. facial recognition and IRIS will provide additional means for person's identification.
8. The manual indexing and filing of statutory registration records is outdated, insecure and unreliable. Retrieval of statutory records is labour and time intensive and inefficient. A properly integrated EDMS system will ensure records are availed at point of use efficiently.
 9. Implementing the 3rd generation ID system will promote a customer centric approach by fast track registration and issuance of ID cards. Applicants will be able to interact with the system and get feedback on the status of their ID application.
3. To launch an Identity card document that can store individual data in a chip and QR/cryptographic code.
 4. To enhance the functionality of the national ID card by integrating the ID database with user agencies systems.
 5. To widen the scope of biometrics captured for identification purposes.
 6. To better integrate the EDMS system with the ID processing system to ensure that register information is available at point of use.
 7. To review the business process system to promote a customer centric approach.
 8. To adopt public key infrastructure to support on demand scalability of 3rd gen ID to digital identity.

6.3.4 Objectives

The overall objective of the 3rd generation ID system is to issue a more secure identification document that conforms to best international practice. The specific objectives are:-

1. To automate the registration system from end to end and hence improve access to identity registration services.
2. To upgrade the current 2nd generation ID card material from Teslin to polycarbonate.

Legal Framework on Registration of Birth, Death and Persons in Kenya

7.1 Existing Legal Framework

The primary legislations that guide civil registration and registration of persons' functions are the Constitution of Kenya, the Births and Deaths Registration Act and the Registration of Persons Act. Other enabling legislation include the: the Children Act; and the Statistics Act. Other recent legislations that are also relevant include: Data Protection Act and supporting Regulations; the Computer Misuse and Cybercrimes Act; and Access to Information Act. These laws are discussed briefly below. The mandate of NRB is further guided by the Citizenship and Immigration Act and the Kenya Citizens and Foreign Nationals Service Act.



7.1.1 The Constitution of Kenya, 2010

The Constitution of Kenya safeguards the right of every citizen to be registered at birth and to be issued with a registration document. The Constitution further guarantees every citizen's entitlement to "a Kenyan passport and any document of registration or identification issued by the State to citizens". Identity documents are therefore a fundamental right for all citizens and not a privilege. In guaranteeing these rights, the Constitution calls for equal treatment of every person before the law, treatment of all persons with dignity, respect of every persons' privacy, guarantee the access to information, fair administrative action, and protection of the rights and best interest of the child.

7.1.2 Births and Deaths Registration Act

The Births and Deaths Registration Act enacted in June 1928 provides for the notification and registration of births and deaths. The Act establishes the office of the Principal Registrar who is responsible for overseeing the overall registration of births and deaths. The office holder also provides registrars with register books and forms for birth and death registration. The registrars are responsible for registering and keeping records of births and deaths. The Act recognises the need to maintain the register of births and deaths in accordance with the principles of data protection set out in the Data Protection Act.

Under the Act, birth and death can only be registered within six months from the date of birth or death. Registration done after six months requires the express authority of the Principal Registrar. In addition, the Act provides for mode of registration of births that have occurred outside the

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country. The Act makes birth notification compulsory. Similarly, registration of death is compulsory. Noteworthy, all the records under the Act are stored in the register which is a physical document.

7.1.3 The Registration of Persons Act

The Registration of Persons Act enacted in December 1947, provides for the registration of persons and for the issue of identity cards. The Act applies to all Kenyan citizens of eighteen years and above. The Principal Registrar appointed under the Act is responsible for keeping a register of all persons in Kenya. Persons returning from abroad are required to appear before a registration officer within thirty days of entry into Kenya to be registered. All these processes take place in a physical mode.

The Act establishes the National Integrated Identity Management System (NIIMS) responsible for managing a national population register. It assigns a unique personal identification number to every person in the register. It also harmonises, verifies and corrects errors in the register and oversees the protection of data collected. NIIMS in addition supports the printing and distribution of birth and death certificates.

7.1.4 Registration of Persons Rules

To facilitate the enforcement and pursuant to Section 16 of the Registration of Persons Act, the Registration of Persons Rules were developed in 1948. The Rules prescribe the form of ID card to be issued, insertion and removal from the register of a person's particulars, procedures to be followed in registration, and fees to be paid. It also authorises registration officers to take finger

and thumb impressions and give specifics of the photos taken. It also sets out the procedures for replacing a lost ID card, amongst other requirements for registration of persons in Kenya.

7.1.5 Kenya Citizenship and Immigration Act

This Act was enacted in 2011 to provide for matters relating to citizenship, issuance of travel documents and immigration. Under the Act, citizenship is acquired by birth. The requirement for registration of stateless persons and migrants who have been living in Kenya since 12 December 1963 and their descendants, impacts the registration of persons in Kenya. Under the Act, every Kenyan citizen is entitled to registration documents such as a birth certificate and national ID card. These documents are necessary in the issuance and replacement of a passport and other travel documents.

7.1.6 Kenya Citizens and Foreign Nationals Service Act

This Act was enacted in 2011 to provide for the creation and maintenance of a national population register and the administration of the laws relating to births and deaths, identification and registration of citizens, immigration and refugees. Kenya Citizens and Foreign Nationals Management Service is established to implement the Act.

7.1.7 The Children Act

The Children Act enacted in 2022 gives effect to Article 53 of the Constitution on the rights of children. The Act recognises the right of every child to be registered immediately after birth in accordance with the Births and Deaths Registration Act. This covers the registration of intersex children at birth. It calls for the non-

discrimination of children on the basis of birth. It is the responsibility of a parent to procure the registration of a child at birth. Noteworthy, the personal data of the child ought to be processed in accordance with the Data Protection Act.

7.1.8 The Statistics Act

The Statistics Act provides for the establishment of the Kenya Bureau of Statistics to manage statistical information and coordinate national statistical systems. The Act provides for the collection, compilation, analysis and dissemination of information on births and deaths. It collaborates with other government agencies in providing official statistics.

7.1.9 Data Protection Act and Regulations

The Data Protection Act gives effect to Article 31 of the Constitution on the right to privacy. It makes provision for the regulation of the processing of personal data, the rights of data subjects and mandates of data controllers. The Office of the Data Protection Commissioner is established to oversee the implementation of the Act. The Act sets out the principles of data protection and the rights of a data subject. A data controller and processor ought to collect personal data for a lawful, specific and explicitly defined purpose. Personal data of a child ought to advance the best interest of the child.

7.1.10 The Computer Misuse and Cybercrimes Act

The Computer Misuse and Cybercrimes Act enacted in 2018 regulates cyberspace and provides for offences relating to computer systems. The Act protects the right to privacy and access to information. The Act makes it an offence to intercept the

transmission of data. It also provides for and consequences for committing cyber espionage and false publication of information. Computer forgery is also an offence under the Act. The Act, therefore, safeguard personal data collected and stored in computer systems.

7.1.11 Access to Information Act

This Act enacted in 2016 gives effect to Article 35 of the Constitution on the right to access information by citizens. It provides a framework for public and private entities to disclose and provide information on request, expeditiously and at a reasonable cost. A public entity is obligated to correct information upon request by an applicant. The Act provides that access to information can be limited to prevent unwarranted disclosure of the privacy of an individual and infringement of confidentiality.

7.2 Necessary Legal Reforms to Facilitate Digital ID and UPI Implementation

7.2.1 Reforms for Implementation of Digital ID

The government issued 1st Generation ID in 1978 and second generation ID cards in 1995. It is now due to issue 3rd generation ID cards (digital identity). To implement this, the Cabinet Secretary ought to issue regulations, without the necessity of amending the law for issuance of the 3rd generation ID (digital identity) as such:

1. Review and align Section 9A of the Registration of Persons Act, CAP 107 that established the National Integrated Identity Management System (NIIMS).
2. Under the 1st schedule of the

- Registration of Persons Act, substitute the image of the current ID card with the 3rd generation ID card.
3. Review the 2nd schedule - Reg. 136A on application forms to indicate the current administrative units and other relevant information
 4. Review the 3rd schedule – Reg. 101R on civil status data to indicate the current administrative unit
 5. Review the 5th schedule – Reg. 105 to indicate the current administrative units.
 6. Review the Registration of Persons’ Regulations to more clearly provide for access to the register by authorised private agencies. The regulations should encompass a data sharing framework to provide for register access management and authentication of extracts from the register and identification reports.
 7. Review and align the National Integrated Identity Management System Rules and regulations, 2020

7.2.2 Reforms for Introduction of UPI

In the case of UPI, there is a need to amend the Births and Deaths Registration Act to provide for new procedures for birth registration through the issuance of a UPI during birth registration. This could be realised through a specific amendment of the Act or by proceeding with the proposed amendments under the Huduma Bill, 2021. The Bill seeks to consolidate laws on civil registration and legal identity management. Under Section 6 of the Bill, a unique and permanent personal identification number (huduma namba) is proposed to be assigned to resident individuals enrolled on NIIMS or at birth.

Comparative Analysis of UPI and Digital ID versus Huduma Namba and Maisha Namba

8.1 Distinctive Features of Digital ID

- i. Roll out of the 3rd generation ID card will not involve new mass registration of persons but it will enhance the capacity of the current system to issue the digital ID.
- ii. The digital ID will not solely rely on fingerprints biometry like huduma card but will seek to widen the pool of biometrics in the national identification system to include iris and facial recognition
- iii. The 3rd generation card will use the cryptographic technology to store individual data in the card which is an advanced and more secure technology as opposed to huduma namba which contained a chip and Qr code.
- iv. 3rd Generation ID card system will support web based and off line identity authentication by Public and private agencies. This would in turn support digital signature functionality and allow holders to securely log on to e-services platforms and give legally binding digital signatures.
- v. The huduma program relied on one registration system (NIIMS) and one master database while the proposed system will develop a master database and different registration modules for each of the primary registration agencies to carry out their legal mandates e.g. NRB will have a national digital identification module/system
- vi. The NIIMS program was to print all certificates and identification cards. In the proposed system each department will issue their own documents from the master database. e.g NRB will issue the digital.



8.2 UPI versus Huduma Namba and Maisha Namba

Sections 2 and 6 of Huduma Bill defines “huduma namba” as a unique and permanent identification number issued to an individual at birth or upon enrolment to NIIMS. The UPI assigned at birth is permanent and is used by an individual for life, hence, “maisha namba” which is loosely translated to “life number”. Thus, the intended roll out of maisha namba seeks to assign UPI from birth to passing.



Challenges Affecting the Implementation of Digital ID and UPI

9.1 The Challenges with the Current ICT Infrastructure



The one hundred and forty civil registration offices across the country are housed in government owned buildings located at the sub county headquarters. Each of the offices has a registry and office space/banking area from where members of the public are served. The offices are supplied with the following ICT and electrical infrastructure:

1. All these offices except Lamu are supplied with electricity.
2. Each office is fitted with a Local Area Network. However the network is faulty and in some offices, completely broken down hence unusable.
3. Offices located at the County headquarters are connected to the Government Common Core Network (GCCN). However, the connectivity remains intermittent.
4. Each of these offices has two to three computers all of which are due for servicing and software updates.
5. Each of the offices has been supplied with a scanner and a printer which also require servicing.
6. The headquarters is host to the central server which is installed with three information systems as listed below;
 - a. Civil Registration and Vital Statistics System(CRVSS)
 - b. Electronic Document Management System (EDMS)
 - c. Database

NRB also operates over 817 registration offices at the regional, county, sub-county and divisional level. These offices also encounter challenges relating to ICT. In addition to the foregoing, there are also challenges relating to capacity and lack of legal/policy clarity.

9.2 Resources

Establishment of birth registration offices across the country is already derailed by inadequate resources. This is going to be a big challenge in the enforcement of UPI. The government ought to set aside funds for the rolling out of the UPI enabling systems, maintaining the systems, training of personnel, improving internet connectivity and other infrastructure, educating the public and overseeing the overall enforcement of UPI.

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9.3 Literacy levels

While Kenya has improved access to basic education in the past several decades, there are still many adults who lack reading and writing skills. Digital literacy is also a big challenge to many Kenyans. Yet digital ID not only requires literacy and also digital literacy. This pushes many people to use help from relatives or cybercafes, putting their personal data at risk. Additionally, not all hospitals and other centres where birth takes place across the country are connected to the internet and personal digitally skilled. There will be a need to educate personnel in birth registration officers, hospitals and other relevant institutions that would facilitate the implementation of UPI.

9.4 Privacy and data protection concerns

There are concerns on the potential breach of privacy and data protection by digital ID and UPI. Following the introduction of Huduma Namba several petitions were lodged to challenge its implementation on account of breach of privacy and data protection. The petitions cited that the information collected were intrusive, excessive and disproportionate to the stated objectives by NIIMS.

There are also similar concerns on the UPI and the likelihood that it would not guarantee data privacy. To avoid similar petitions, the UPI ought to be clear from the onset what its objectives are.

To be successfully rolled out, the UPI ought to guarantee the principles of data protection set out under the Data Protection Act and the respect of the rights of data subjects to be informed

of the use, access, object to processing, correct false or misleading data and delete false and misleading personal data. The UPI implementation systems should also anticipate and on the onset mitigate data and privacy risks not limited to security breaches, unauthorised disclosure, identity theft, function creep, unjust treatment, discrimination, surveillance risks and exposure of sensitive personal information.

9.5 Lack of Trust

Increase in birth registration is due to government directives/ fear of children being locked out of class as opposed to increased understanding of the role of birth registration. There needs to be systems and processes that facilitate the building of trust in the UPI implementation processes. The government should also see to it that data collected and stored is not lost, as this will result in the lack of trust in the UPI system and thus, push Kenyans to resort to the manual registers. The UPI system should also be easy to understand and record data. This would increase the trust levels in the system.

9.6 Political and Social challenges

Standardisation of birth registration does not take into consideration different cultures with different naming practices. Different communities in Kenya have different naming practices, where in some instances, involve the change of name during initiation. UPI ought to take such social challenges into consideration and provide a mechanism to facilitate any such changes in names depending on the customs and practices of various communities in Kenya.

9.7 Inclusion and accessibility

Inclusion in the use of the internet is a big challenge facing many developing countries, such as Kenya. There is, for instance, lack of equitable access to power/ internet in various parts of the country. The places with little access seem to be those that are already underserved under the current system. Thus, the government

services digitalisation processes ought to factor in the needs of indigenous and minority communities, women and persons with disabilities. The government also ought to put in place measures that facilitate equal access across the country of the UPI. UPI must not only be available across the country but also accessible to all.

The Benefits of a Digital ID and Digitisation of Birth and Death Certificates

The digitisation of birth and death certificates can help overcome the challenges that currently exist by providing a more efficient, reliable, and secure system. Digitisation can reduce the risk of errors and inaccuracies by automating data entry and reducing the need for manual data entry. It can protect data from damage and loss by storing it electronically, reducing the risk of physical damage and loss of data. Digitisation can lead to an increase in the speed of data sharing and access, making it easier for citizens to access their records and for government agencies to provide quick and efficient services. Digitisation can also enhance security and reduce the risk of fraud, with advanced security measures such as encryption and multi-factor authentication.

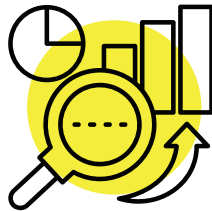


In summary, UPI and digital ID can provide significant benefits over paper-based systems, including increased accuracy, security, and efficiency. By overcoming the challenges of paper-based systems, digitisation can create a more effective registration system that benefits all Kenyan citizens, helping to improve access to essential services, reduce fraud, and provide a more reliable source of data for policy planning and program implementation.

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A Comparative Analysis of UPI and Digital ID Successfully Rolled Out

11.1 India - The Aadhar card



The Aadhaar system is India's national identification system that assigns a unique 12-digit number to each resident of India. The frame of reference for this comparative analysis will involve the examination of various aspects of India's model with Kenya's upcoming UPI and their implementation in their respective countries.

11.1.1. Socio-economic and Political Realities

The socio-political realities of India and Kenya are shaped by their unique historical and political contexts. Both countries' histories are marked by a shared struggle for freedom from British colonial rule. This struggle for independence has influenced democratic institutions, diverse cultural fabric, and ongoing debates surrounding social issues in these countries. As a result, the neocolonial political landscape of both countries has been characterised by issues such as ethno-political tensions and governance challenges.

India and Kenya exhibit different socio-political realities shaped by their historical, social, and political contexts. India experiences significant subnational variation in welfare outcomes and grapples with economic inequalities and marginalisation, and Kenya also faces similar challenges. Understanding these realities is crucial for policymakers and stakeholders in both countries to address regional disparities, promote inclusive development, and work towards social justice.

11.1.2. Objectives and Scope

The genesis of the Aadhaar project stems from the Indian government's position that biometric-based authentication was essential to eliminating ghosts and duplicate beneficiaries that were a drag on the public welfare system. The Aadhaar number was intended to be used to authenticate the identity of a person at the time of their accessing welfare benefits. Nevertheless, over the last couple of years, the Government rapidly expanded the scope of Aadhaar, with proposals to link Voter IDs with the Aadhaar number now reportedly in the pipeline. This expansion led to a constitutional challenge against the project in the Supreme Court. In part, this was due to concerns of exclusion, security, and accountability arising

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due to questions around the implementation of the Aadhaar scheme and the absence of any data protection laws.

The Kenyan UPI project is aimed at enabling efficient and effective service delivery in both the public and private sectors. It will be introduced for newborns, which will serve as the child's personal number at school before eventually becoming their national identity number, social security number, health insurance number, and finally the death certificate number. In the press release, the Ministry will also work on the introduction of the Third Generation, smart and digital ID. Aadhaar in India has a wider scope as it aims to provide a unique identification number for every resident, regardless of nationality. It has achieved significant coverage, with biometric identities created for hundreds of millions of individuals. In comparison, the coverage and scope of Kenya's UPI system, as defined by the NIIMS Act, are not explicitly mentioned, providing the government with the leeway to develop the scope.

11.1.3. Legal and Policy Framework

India's Aadhaar system is governed by the Aadhaar Act of 2016, which provides a legal basis for the collection, storage, and usage of biometric and demographic data for unique identification purposes. The Act establishes the Unique Identification Authority of India (UIDAI) as the regulatory body responsible for Aadhaar implementation and sets out provisions for data protection, confidentiality, and the rights of individuals regarding their Aadhaar information. On the other hand, Kenya's UPI system does not have a specific legislation dedicated solely to its

governance. Instead, the Huduma Namba Bill of 2021, provides the legal framework for UPI. The Bill establishes the National Integrated Identity Management System as a database for centrally consolidating personal information and outlines the types of data to be collected, including biometrics and various personal details. However, concerns have been raised regarding the privacy and security implications of the system.

While Kenya's Constitution enshrines the right to privacy under its bill of rights, and the Data Protection Act gives life to this by outlining provisions for the protection of individual rights and privacy, India's Aadhaar legal framework falls short where the right to privacy has been left out of its Constitution. Further, India's Supreme Court has ruled that the right to privacy is not a constitutional right. Additionally, the Aadhaar Act has faced legal challenges in India, with debates around issues such as data security, surveillance concerns, and potential misuse of personal information. Kenya's UPI system has also faced scrutiny, particularly regarding the collection of sensitive personal data and the potential implications for privacy and surveillance. However, Kenya does have a more robust data protection and right to privacy framework especially considering that the UPI is anticipated to be rolled out after the promulgation of the Data Protection Act, 2019. In comparison, India rolled out the Aadhaar card despite the lack of a specific data protection legislation.

It was only after ten years of Aadhaar that the Personal Data Protection Bill was tabled before the Indian Parliament, after which the bill was passed into law in August 2023.

11.1.4. Implementation and Adoption

India's Aadhaar program was launched in 2008 and has been implemented on a large scale. It has created biometric identities for over 940 million people and aimed to cover 1.2 billion people by June 2016. Currently, Aadhaar is the largest biometric identification system in the world, with over 1.2 billion enrolled members as of 2021. In India, every resident of India is given an individual 12-digit identifying number which is the Aadhaar. Aadhaar identification cards and numbers are managed by the Unique Identification Authority of India (UIDAI), a department of the planning commission of India. The Aadhaar project was launched as an effort to create a single, distinctive identification card or number that would record all of an Indian resident's facts including demographic and biometric data. Indian citizens already have access to a wide variety of identity documents such as passports, permanent account numbers (PAN), driver's licenses, and ration cards. The Aadhaar card/UID may be used as the only form of identification when making other applications. Additionally, it serves as the foundation for corporate profiling standards that are followed by banks, financial institutions, telecom companies, and other companies that keep customer profiles.

Kenya's UPI is yet to be implemented or adopted, however the impugned Huduma Namba was aimed at registering 40 million Kenyans and eventually registered about 36 million.

11.1.5. Right to Privacy and Data Protection

Numerous international and regional conventions and legal instruments recognize

the right to privacy as a fundamental human right. Due to the intersectional nature of human rights, human dignity and civil freedoms such as free speech and association are propped up by the right to privacy. In the modern era, the right to privacy has emerged as one of the most crucial human rights issues. Most nations around the globe recognize the right to privacy in their constitutions. However, the right to privacy is not expressly protected in the constitutions of several nations, including the U.S., Ireland, and India. Owing to the sheer scale of its implementation, discussions about the advantages and difficulties of biometric identity legislation around the world are likely to be influenced by India's experience with Aadhaar, particularly the privacy and surveillance concerns.

The "right to privacy" is protected as a vital part of "The right to life and personal liberty" under Article 21 and Part III of The Indian Constitution which states that "No person shall be deprived of his life or personal liberty except in accordance with the procedure established by law". For the first time, privacy as a right was considered by the courts in the landmark case of *MP Sharma v. Satish Chandra*, which defined the range of the police's investigative and examination powers. The court came to the conclusion that there is no constitutionally protected right to privacy. This reasoning however does not obliterate the right to privacy in India, though it has been upheld in similar cases to do with police investigations, there are differing circumstances where the courts have upheld the right to privacy. For Kenya, the right to privacy is enshrined in Article 31 of the 2010 Constitution.

Furthermore, according to Article 24, the right to privacy can only be limited in specific circumstances. These limitations may arise when there is a legitimate aim, such as safeguarding national security, public order, or the rights and freedoms of others. Moreover, any restriction must be proportionate, necessary, and done in accordance with the law. The Kenyan Constitution ensures that these limitations do not unduly infringe upon the individual's right to privacy and are subject to judicial review to prevent any abuse of power or violation of fundamental rights and freedoms.

As with Kenya's UPI, critics of the Aadhaar system have argued that the collection and storage of biometric information, along with the linking of Aadhaar numbers to various government services and programs, poses a risk to privacy. They argue that this could lead to the government and other entities having access to sensitive personal information, which could be misused or mishandled. In response to these concerns, the Supreme Court of India has issued several rulings on the Aadhaar system. In a landmark decision in 2017, the court held that the right to privacy is a fundamental right and that the Aadhaar system could be constitutional only if it met certain requirements, such as ensuring that citizens have control over their personal information and that the use of Aadhaar is voluntary. The court also ruled that the government cannot require Aadhaar as a mandatory requirement for access to government services or subsidies and that it cannot share Aadhaar data with private companies or entities without the explicit consent of the individual. Subsequent to this ruling, the government of India introduced a

new law, the Aadhaar and Other Laws (Amendment) Act, 2019, which aims to address some of the concerns raised by the court. The Act provides for increased safeguards for the protection of personal data and penalties for unauthorised use or disclosure of Aadhaar data.

The constitutionality of the Aadhaar Act was substantially upheld by the majority in the Constitution Bench of the Supreme Court in 2018 in Justice (Retd) K.S. Puttaswamy v. Union of India, the Court did not enter into policy questions on the legal framework and infrastructure surrounding Aadhaar. It did, however, express its view that there was a "need for a proper legislative mechanism for data protection" and encouraged the government to bring out "a robust data protection regime" based on the recommendations of Justice B.N. Srikrishna (Retd.) Committee Report. Interestingly, despite the fact that the Government has not passed, or even introduced, a data protection law; it has passed and promulgated the Aadhaar (and Other Laws) Amendment Bill.

The constitutionality of Kenya's UPI has not been challenged, however its preceding doppelganger, Huduma Namba was greatly controversial. The Kenyan High Court ruled that the Huduma Namba exercise was unconstitutional citing a lack of public participation and privacy concerns. In comparison to India, though Kenya's UPI raises some controversy it will be implemented after the promulgation of the Data Protection Act. Which provides comprehensive guarantees on a person's right to privacy and their rights over their personal information. This provides some security or a show of good faith on the part

of Kenya's UPI and its potential impact on privacy and individual rights considering that the UPI will be a key part of Kenya's identity infrastructure.

11.1.6. Social Impact and Inclusion

Aadhaar, India's unique identification system, has been instrumental in facilitating financial inclusion and social welfare programs by providing a verifiable digital identity to individuals, particularly those who were previously excluded from formal systems. Through Aadhaar, marginalised populations have gained access to government subsidies, banking services, and other benefits, leading to improved financial inclusion and reducing instances of corruption. On the other hand, Kenya's UPI aims to enhance financial inclusion by enabling seamless and secure digital transactions, including person-to-person transfers, merchant payments, and government disbursements. The UPI can expand access to financial services and empower underserved communities, promoting economic participation and reducing reliance on cash-based transactions. By leveraging digital platforms and innovative technologies, both Aadhaar and Kenya's UPI hold the promise of fostering social inclusion by bridging the gap between excluded populations and formal financial systems, thus promoting greater economic empowerment and reducing inequalities.

The upcoming UPI in Kenya has generated concerns among migrant communities regarding the implications it may have on their digital identity. Migrant communities often face unique challenges when it comes to accessing formal financial services and establishing a secure identity. While the

UPI system aims to enhance financial inclusion, there are concerns that migrant communities may encounter difficulties in obtaining and linking their digital identity to the UPI platform. Factors such as language barriers, lack of documentation, and limited awareness of the registration process may further marginalise these communities and impede their access to the benefits of the UPI system. For migrant communities in Kenya, one of the most pressing challenges concerning the UPI is the issue of discrimination experienced in accessing or correcting identification documents. In line with the government's focus on digitization, the government has begun the implementation of electronic medical records systems in hospitals. This can be anticipated to operate in a more objective manner in respect to the issuance of crucial identification documents such as birth certificates.

It is therefore acknowledged that it is crucial for the government and relevant stakeholders to address social inclusion and discrimination concerns proactively by ensuring that the registration process is inclusive, accommodating diverse backgrounds and circumstances. Providing adequate support services, multilingual resources, and simplifying documentation requirements can help alleviate the challenges faced by migrant communities and ensure their meaningful participation in the digital economy. By addressing these concerns and implementing inclusive measures, the UPI system can become a catalyst for financial inclusion and empower migrant communities in Kenya.

11.1.7. Public Perception and Challenges

Aadhaar faced mixed public reception

in India. While it aimed to streamline government services, improve efficiency, and reduce fraud, there were concerns about the mandatory nature of Aadhaar, data breaches, and the potential misuse of personal information. Similarly in Kenya, the introduction of Huduma Namba in Kenya also generated debates and concerns among the public. Privacy concerns, potential misuse of data, and doubts about the effectiveness and necessity of the system were among the key issues raised. Moreover, the then administration fanned these fears by imposing the Huduma Namba registration as a mandatory exercise with the threat that those who didn't register would be locked out of accessing government services.

Considering that the Kenyan public perception on digital identities has been impugned by the failures of the Huduma Namba, the current administration is

committed to mitigating this by leveraging public participation. It is intended that through public participation and awareness, the current government will significantly enhance the public perception of Kenya's UPI, particularly in light of the controversies surrounding the Huduma Namba. Public participation fosters transparency, accountability, and trust by involving citizens in decision-making processes, allowing for the incorporation of diverse perspectives and expertise, and addressing public concerns. By actively engaging the public, the government will improve communication, provide accurate information, and build confidence in the UPI system.

Proposed Solution

12.1 Digitalisation of Births and Deaths Registration



The proposed digital Unique Personal Identification (UPI) system in Kenya is modelled after successful implementations of similar systems in other countries. The success in the Indian model could inspire Kenya in developing its model.

The government ought to put in place technical requirements and infrastructure needed to implement the system across the country. The infrastructure ought to be available and accessible by all Kenyans. Any such system should also consider the unique needs and interests of indigenous and minority communities and persons with disabilities. In addition, the potential costs and funding sources for the system ought to be outlined from the onset and assessed against the enforcement realities and long term goals.

12.2 Expected Output of the 3rd Generation ID System

1. To migrate 31.5 million records from the 2nd generation ID system to the 3rd generation ID system
2. Automation of the registration processes which is expected to improve efficiency in the ID registration process, improve access to registration services and reduce the cost of doing business in ASAL and remote areas
3. Modernization of the ID processing systems, equipment and materials will lead to issuance of a more secure identification document thus reducing counterfeiting
4. A national electronic id card that is compliant with ICAO standards will allow Kenya citizens to use it as a travel document across the East Africa Community.
5. A more customer centric registration and production process thereby reducing public complaints and opportunities for corruption and improving
6. Upgrading AFIS to ABIS will allow for a more inclusive identification system that will cater for PWDs
7. Electronic card will allow more efficient validation of personal

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identification data by public and private institutions thus easing citizens access to services

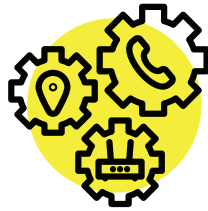
12.3 Stakeholder Involvement

There is a need for stakeholder involvement in all the stages of implementation. The public needs to be consulted and their views taken on the government's plan to roll out UPI and Digital ID. The public

also needs to influence relevant policy making, the piloting phases, roll-out in other parts of the country and continuous system improvement exercises. Relevant birth and death registration institutions and institutions dealing in documentation registration for instance, ID, ought to be involved. More importantly, parents on behalf of data subjects should be engaged.

Implementation of the UPI and Digital ID

13.1 Actualisation



There needs to be in place a clear structure in place for the implementation of UPI and digital ID. There could be for instance, a pilot phase in select regions in the country and thereafter, a countrywide roll out. Depending on the available government resources UPI and digital ID could be rolled out at the same time and speed throughout the country. This is more efficient as it ensures that the services are accessible and available to all Kenya in an equitable and fair manner.

13.2 Civic Education

The government ought to put in place adequate resources and mechanisms for civil education countrywide. As it is expected that every child born in Kenya is to be registered digitally, all stakeholder involved ought to be aware and educated on the processes for obtaining the UPI. More focus could be placed on the institutions responsible for birth registration.

Potential Impact of Digital ID and UPI

14.1 Expected Impact of 3rd Generation ID Roll Out

1. The high levels of assurances for identity verification and authentication will enhance National Security.
2. Establishment of legal identity by providing a trusted and reliable identity for all.
3. Establishment of a national population biometric database.
4. Efficiency gains and improved service delivery.
5. Enable citizenry to overcome barriers to political, social and economic participation and access rights as enshrined in the Constitution of Kenya.
6. Access and boarding in private services such as banking and telecommunications.
7. Leverage on use of ICT technology in public service and among citizenry.
8. Enhance inclusiveness in the national identity management system by including other forms of biometry identification e.g. facial recognition and iris.



14.2 Potential Impact of UPI

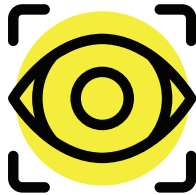
The introduction of a digital Unique Personal Identification (UPI) system and digitisation of birth and death certificates in Kenya has the potential to bring about significant positive impacts on the Kenyan population. Some of the reasons are set out below:

1. Reduction of fraud.
2. Streamline digitisation process.
3. Accountability.
4. Promote economic growth.
5. Improving service delivery.
6. Promoting good governance.

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Possibility of Multiple Digital ID Systems

Countries that have implemented digital ID systems and electronic identification such as India, Estonia, Mauritius, Germany, Portugal, Pakistan and several others, have adopted single systems. Kenya appears unsettled on whether to adopt a Digital ID or the UPI.



The government must select one of the systems by taking into consideration factors such as:

1. The cost and ease of implementation.
2. A system that is beneficial to all.
3. A system with minimal negative impacts.
4. A system with far-reaching impacts in the country.
5. A system that streamlines government services.
6. A system that facilitates easy access to government services by all.
7. A system that facilitates data privacy and protection.
8. A system that adheres to digital identity principles.
9. A system that can be implemented by a few government departments.
10. A system that facilitates the realisation of human rights and fundamental freedoms, most especially by minority and marginalised communities in Kenya.
11. A system that gives regard to technological, literacy, and other challenges affecting Kenyans.
12. A system that increases economic value.

The Cost-Benefit Analysis

The cost-benefit analysis for Aadhaar, India's unique identity system, is a complex and ongoing process. The cost of the Aadhaar project was primarily borne by the Indian government, with contributions from various other stakeholders. The government allocated funds for the project from its budget, and the UIDAI received financial assistance from multilateral development agencies such as the World Bank and the Asian Development Bank.

The initial cost of implementing Aadhaar was estimated at Rs. 9,000 crores (approximately \$1.2 billion USD) for:

1. Ongoing maintenance and operation costs for the system, including data storage and management, personnel, and technology updates.
2. Costs associated with Aadhaar-related fraud, such as identity theft or fake enrolment.
3. Potential costs to privacy and civil liberties, as well as concerns around exclusion of marginalised populations.

The benefits that have been derived include:

- a. Potential reduction in government subsidy fraud and duplication, resulting in savings estimated at Rs. 90,000 crores.
- b. Linking seven major welfare schemes and subsidies to Aadhaar will lead to a "saving" of Rs 1 lakh crore over 10 years, and that after accounting for the costs of integration with Aadhaar the internal rate of return of the project will be over 50%.
- c. Improved efficiency and effectiveness in the delivery of government services, including welfare benefits, healthcare, and education.
- d. Improved financial inclusion through Aadhaar-linked bank accounts and mobile payments.
- e. Improved national security through the ability to track and identify individuals.



Conclusion



With technological advancements, it becomes increasingly imperative to digitise essential government services. Governments across the world put in place systems and processes that facilitate quick and efficient access of critical services by their citizens. Kenya has not been left behind in doing this. In this regard, the government is keen to digitise civil registration and registration of persons through the roll out of digital ID and UPI. This advisory document has noted that while this initiative by the government is great, it ought to be implemented in adherence to the data governance and general principles on digital identity.

The CRS and NRB, as the key institutions responsible for civil registration and registration of persons and as the key enforcers of the UPI and digital ID, need to work together in ensuring that the most effective system of digital identity is implemented in Kenya. The system ought to be cost effective and easy to implement, beneficial to all, have minimal negative impacts, have far-reaching impacts in the country, streamline government services, facilitate easy access to government services by all, facilitate data privacy and protection, adhere to digital identity principles, facilitate the realisation of human rights and fundamental freedoms, most especially by minority and marginalised communities in Kenya, give regard to technological, literacy, and other challenges affecting Kenyans and increase economic value. Kenya could draw lessons from digital ID systems in India, Estonia, Mauritius, Germany, Portugal and Pakistan.

Lastly, while it is anticipated that the benefits of UPI will in the long run outweigh the challenges, the government ought to anticipate and address any challenges that it may face in the implementation of the UPI. As discussed, the government ought to address the challenges that exist in the registration of births, deaths and persons in Kenya and particularly, challenges brought about by digitisation of registration processes. More importantly, the government ought to guarantee data protection and privacy, build trust in the system and guarantee availability and access to the system by all.

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Contacts

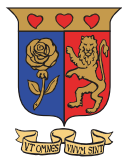


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