



# DIGITAL ID

PROSPECTS AND CHALLENGES FOR SOMALIA

May 2023

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### Acknowledgements

The author would like to thank Dr. Afyare Elmi and Dr. Uweis Ali for their contribution to the study. Their expert input and guidance shaped the design and methodology of the research while their feedback during the final review process helped refine the research report, its findings and recommendations. The author would also like to thank the interviewees for responding to the interview questions and for sharing their experiences, perspectives, and insights.

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# 1. Executive Summary

Advances in technology and improvements in connectivity have given governments new capabilities, such as digitizing records, capturing biometrics, and automating processes. These improvements have enabled new concepts such as digital identity that allow human data to be converted into a machine-readable format. While digital identity systems are gaining prominence to respond to global identity challenges, their implementation has faced hurdles and led to failed outcomes. This article outlines the prospects and challenges of digital identification systems (digital ID) in Somalia. It does so by applying a qualitative research method that includes expert interviews and document analysis.

The research finds that while there are potential use cases for a digital ID in Somalia, the readiness in terms of regulatory frameworks and digital infrastructure is not adequate and might pose significant challenges and risks. The government is advised to undertake broader consultations and targeted stakeholder engagement to not only create awareness about the new Digital ID programme but also ensure organizational and stakeholder readiness.

# 2. Introduction

Advances in technology and improvements in connectivity have given governments new capabilities, such as digitizing records and automating processes. Digital transformation is currently a megatrend that is affecting how governments operate, societies interact, and even identify themselves. Olson (2022) defines personal identity as properties humans are attached to and use to distinguish themselves from others. Digital transformation has enabled the concept of digital identity, allowing for “the conversion of human identities into machine-readable digital data”.<sup>1</sup>

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1. Masiero and Bailur, “Digital Identity for Development: The Quest for Justice and a Research Agenda.”

## Box 1: Definitions

1. Legal identity is the basic characteristics of an individual's identity, such as name, sex, place and date of birth, conferred through registration and the issuance of a certificate by an authorized civil registration authority following the occurrence of birth. In the absence of birth registration, legal identity may be conferred by a legally recognized identification authority. **United Nations**

2. Digital identity is defined as “a set of electronically captured and stored attributes and/or credentials that uniquely identify a person”. **World Bank**

3. Digital identification (ID) system is an identification system that uses digital technology and solutions to capture data for the purpose of digitally validating, identifying and authenticating someone's identity in addition to storing data and managing credentials. **World Bank**



*In the globally adopted Sustainable Development Goals (SDGs), UN member states have committed to providing “a legal identity for all” by 2030 considering the importance of identification for development and inclusion*

Digital identity systems or digital IDs are gaining prominence and are suggested as a way to address global challenges such as the one billion people that don't have ID documents.<sup>2</sup> According to the World Bank, 24% of developing countries do not have any form of digital identity system, the majority of whom are in the sub-Saharan region. That is problematic, because without legal identification, individuals cannot fully exercise their rights and will find themselves excluded from economic, social, and political opportunities.<sup>3</sup> In the globally adopted Sustainable Development Goals (SDGs), UN member states have committed to providing “a legal identity for all” by 2030<sup>4</sup> considering the importance of identification for development and inclusion.

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2. World Bank, “Inclusive and Trusted Digital ID Can Unlock Opportunities for the World's Most Vulnerable.”

3. Mosero, “Analysing the Impact of Digital ID Frameworks on Marginalised Groups in Sub-Saharan Africa.”

4. UN, “Goal 16 | Department of Economic and Social Affairs.”

The World Bank argues that digital ID systems can improve governance, administrative efficiency, and the delivery of public services.<sup>5</sup> They are also expected to create economic value for countries<sup>6</sup> and have been recognized as essential for advancing digital inclusion, social protection, humanitarian assistance, and other elements of the SDGs.<sup>7</sup> However, digital ID projects were found to be costly and, in some cases, it was concluded that “digital identity leaves the poorest and most vulnerable out”<sup>8</sup> and may be associated with human rights violations.<sup>9</sup> These risks may be due to the lack of connectivity and gaps in digital literacy in many parts of the world as well as limited regulations and oversight.

## Box 2: Definitions

1. Biometrics are unique and measurable individual characteristics, such as iris, fingerprints or face, that can be used for automated recognition.  
**US Department of Homeland Security**

2. A foundational identification (ID) system is a legal identification system that is primarily created to manage the general population’s identity information for the purpose of issuing government-recognized credentials, such as national ID, and proving their identity for a wide variety of public and private sector transactions and services. **World Bank**

3. A functional identification (ID) system is an identification system that is service-centric and is created to manage identification, authentication, and authorization for a particular purpose, such as voting, social programs and transfers, financial services, etc. **World Bank**

Globally, different forms of digital identification have been implemented. For example, Estonia is known to have pioneered the concept of state-issued digital identity with the government issuing digital IDs that citizens can use as proof of identification and also to do online transactions, vote, access secure e-services such as banking and health.<sup>10</sup> Similarly, India’s digital ID system, known as Aadhaar, was designed to provide an acceptable, easy to authenticate, and unique identity to every citizen through the use of biometric technology.<sup>11</sup> The system captures both biometric and biographic information.

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5. World Bank, “Inclusive and Trusted Digital ID Can Unlock Opportunities for the World’s Most Vulnerable.”

6. McKinsey, “Digital ID: A Key to Inclusive Growth | McKinsey.”

7. Geteloma, Ayo, and Goddy-Wurlu, “A Proposed Unified Digital Id Framework for Access to Electronic Government Services.”

8. Van der Straaten, “Identification for Development It Is Not.”

9. Dixon, “A Failure to ‘Do No Harm’ - India’s Aadhaar Biometric ID Program and Its Inability to Protect Privacy in Relation to Measures in Europe and the U.S.”

10. Estonia, “Estonia ID-Card.”

11. Mir et al., “Realizing Digital Identity in Government: Prioritizing Design and Implementation Objectives for Aadhaar in India.”

As of July 2022, more than 1.3 billion people had been issued with an Aadhaar number – a unique identification number consisting of a combination of 12-digit random numbers and biometric details.<sup>12</sup> Others include Malaysia which has implemented a mandatory digital identity card (MyKad<sup>13</sup>) for citizens, Denmark which recently introduced electronic personal identification system (MitID<sup>14</sup>) as the gateway for accessing public and private online services, and so many others in different continents.

In Africa, there are an estimated 500 million people without any form of legal identification.<sup>15</sup> This gap is attributed mainly to conflicts and the associated displacements, limited capacity of governments to undertake civil registration and issue or maintain vital statistics and specific barriers such as cost, location and other factors.<sup>16</sup> Against that backdrop, several governments have attempted to adopt a digital identification system, embracing biometrics technology at a time when an identification document is required to access health services, file taxes, obtain travel documents, open bank accounts, and establish credit in many parts of Africa.<sup>17</sup> In order to realize the 2020-2030 digital transformation for Africa, the African Union is in the process of developing a digital ID policy framework for its member states.<sup>18</sup> Countries such as Nigeria have made several attempts to roll out their digital identity program. Indeed, Nigeria's current digital identity program, launched in 2009, currently has over 56 million enrollments.<sup>19</sup> Other African countries have leveraged digital identity systems and biometric technology to register civil servants and uniquely identify them.

Somalia is among the countries that have launched a foundational biometric-based identity program.<sup>20</sup> It is reported that the country has signed a memorandum of understanding with Pakistan's National Database and Registration Authority (NADRA) to implement a digital ID system.<sup>21</sup> In 2019, the Federal Government of Somalia introduced a biometric registration program for its soldiers which resulted in the removal of 9,000 ghost soldiers.<sup>22</sup>

The use cases of digital ID systems for many countries include digitized registration, identification and authentication, automated background verification, digital tax filing, online voting, digitized land registries, and secure digital payments.<sup>23</sup>



*The use cases of digital ID systems for many countries include digitized registration, identification and authentication, automated background verification, digital tax filing, online voting, digitized land registries, and secure digital payments*

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12. UIDAI, "Aadhaar Dashboard."

13. Malaysia Government, "MyGov - MANAGING PERSONAL IDENTIFICATION | MyKad Registration."

14. Denmark, "Electronic ID in Denmark - MitID | Nordic Cooperation."

15. Dahan and Sudan, "Digital IDs for Development."

16. Maina Waruru, "Africa's Invisible Millions Survive without ID Documents."

17. AU, "The Digital Transformation Strategy for Africa (2020-2030) | African Union."

18. Bhandari et al., "Towards the Evaluation of Socio-Digital ID Ecosystems in Africa."

19. NIMC, "Enrolment Dashboard June 2021."

20. Burt, "Somalia Launching Foundational Biometric Identity Program | Biometric Update."

21. Hiiraan, "Biometric Payment Systems Improves Conditions for Soldiers in Somalia."

22. Waal, "Renewed Hope."

23. McKinsey, "Digital ID: A Key to Inclusive Growth | McKinsey."

Despite these potential use cases, the digital ID program in Africa has faced several challenges ranging from legal to infrastructural issues which has led to several programs being shelved or put on hold. Yesha and Shruti (2021) reported that digital ID systems in Africa often do not consider context-specific and structural problems such as regulatory gaps, infrastructure needs, religious or cultural restrictions, the lack of digital literacy, and the absence of strong accountability mechanisms.

These findings make clear the need to have a comprehensive understanding of the prospects and challenges of digital ID before implementation starts. This is especially true for countries such as Somalia that are emerging from conflicts and are rebuilding government institutions. The factors which will impact the outcome of a digital identity project also need to be understood.<sup>24</sup>

No empirical study, to the best of our knowledge, has yet to unpack the context-based challenges and opportunities in fragile and conflict-affected situations where the ICT sector is not advanced and where there are limited regulations related to identity and data protection and roles and responsibilities. This paper will therefore attempt to shed light on the potential opportunities and challenges associated with implementing such a digital system in Somalia. It will specifically answer the following questions: what are the potential uses and benefits of implementing a digital ID in Somalia as well as the challenges and risks?

The paper is comprised of four sections. The first reviews the existing literature on digital ID systems and those that are biometric based, drawing lessons from implemented systems in Africa and beyond. The second provides an overview of Somalia's digital landscape, current identification systems, and the proposed digital ID initiative. The third discusses the findings of the document analysis and interviews focusing on the prospects, challenges, risks, and benefits. The last section puts forward the practical implications of the findings and provides a set of recommendations, framed as critical success factors, to guide government officials in the appropriate deployment and enactment of a digital ID system in Somalia.

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24. Mir et al., "Realizing Digital Identity in Government: Prioritizing Design and Implementation Objectives for Aadhaar in India."



### 3. Methodology

This research report follows a qualitative research methodology to determine the benefits and challenges of the proposed Somalia's digital identification system. This interpretive approach was appropriate as it provided an in-depth understanding of the issues and allowed the issues to be identified from the perspective of the study participants who are experts in this topic.<sup>25</sup>

The approach entailed document analysis (a review of written materials) and semi-structured interviews (interviews with experts). The analysis of reports and policy documents assisted in setting the context, developing an understanding of the digital ID initiative in Somalia, and discovering insights pertaining to the research questions.<sup>26</sup> Documents were sourced via internet-based searches. In contrast, the semi-structured interviews with experts were interactive and elicited key insights from the experts relating to the perceived benefits and challenges of a digital identification system for Somalia. The interviewees included both technical and policy experts who work in government, non-governmental organizations, and academia. The mix of techniques and diverse interviewees assisted in confirming the findings through triangulation.<sup>27</sup>

Fountain's (2001) technology enactment framework which distinguishes between objective technology (technology as designed) and enacted technology (technology as used) is applied. This difference between design and usage implies that governments use technology in their own ways and that the outcomes vary depending on the government's characteristics including the context in which it operates and its capacities.<sup>28</sup> Based on this framework, the technology underpinning digital identification systems and institutional arrangements necessary for the system will be described. The perceived challenges, benefits, potential use, and factors influencing the enactment of a digital ID system in Somalia will be explored.

### 4. Literature review

Digital identity has been linked with socio-economic development and is said to provide the "basis for individuals to be entitled with rights, receive public services, or benefit from much-needed forms of social assistance".<sup>29</sup> It is also believed that it can contribute to improving accountability and building state capacity and, as a result, accelerate the achievement of the SDGs.<sup>30</sup> However, it has also been concluded that digital platforms can have harmful effects for users and even lead to degenerative outcomes such as exclusion.<sup>31</sup>

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25. Hennink, Hutter, and Bailey, *Qualitative Research Methods*.

26. Bowen, "Document Analysis as a Qualitative Research Method."

27. Heale and Forbes, "Understanding Triangulation in Research."

28. Mu, Haershan, and Wu, "What Organizational Conditions, in Combination, Drive Technology Enactment in Government-Led Smart City Projects?"

29. Masiero and Bailur, "Digital Identity for Development: The Quest for Justice and a Research Agenda."

30. Gelb and Metz, *Identification Revolution*.

31. Masiero and Arvidsson, "Degenerative Outcomes of Digital Identity Platforms for Development."

These effects could be worse for marginalized communities who “run the risk of further being disadvantaged and discriminated against by either being locked out of the system or having their data exploited”.<sup>32</sup>



*While there can be many potential applications and benefits for foundational identification systems, higher initial cost and the necessary inter-governmental coordination and maintaining political will can be a burden*

Despite the negative implications, there has been uptake of digital identification systems to facilitate access to universal services such as health care and targeted ones such as social safety nets.<sup>33</sup> Gelb and Clark (2013) surveyed biometric-based identification systems for the purpose of development and found “two different supply and demand-based identification systems”. In the supply driven cases, foundational identity systems were created by governments with the goal of linking them to social applications. In the demand-driven cases, specific functional identification systems are introduced first for specific purposes such as voting or banking. While governments can start with either, there are advantages and disadvantages noted in the literature. For example, shifting a function-based identification system to a foundation one is associated with potential exclusion although there is an incentive to drive citizen uptake. On the other hand, while there can be many potential applications and benefits for foundational identification systems, higher initial cost and the necessary inter-governmental coordination and maintaining political will can be a burden.<sup>34</sup>

In the literature, several challenges have been noted in relation to the design, development, and adoption of digital identification systems. For instance, Sen (2019) believes that the most challenging task in establishing an effective identity system is ensuring that “laws, policy, technology and logistics move in tandem”(p. 7). Another factor noted down as a concern is cost.<sup>35</sup>

These are not the only problems. Mosero (2021) identified both regulatory and technical challenges in her study of the impact of digital ID frameworks on marginalized groups in sub-Saharan Africa. She found that requiring “breeder documents” such as birth certificates to obtain a digital ID discriminated against certain groups. She also found that a lack of information and mistrust were found to lead to poor public perception which affected interest and uptake in digital ID systems. Mosero discovered that for many countries, privacy concerns were only considered after deployment. The technical challenges associated with digital ID systems included challenges with harmonization in areas where multiple functional systems exist, poor infrastructure, and limited connectivity in rural areas and cybersecurity threats.

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32. Mosero, “Analysing the Impact of Digital ID Frameworks on Marginalised Groups in Sub-Saharan Africa.”

33. Masiero and Bailur, “Digital Identity for Development: The Quest for Justice and a Research Agenda.”

34. Gelb and Clark, “Identification for Development.”

35. Gelb and Clark.

Ogah (2021) sought to unpack the hurdles to consolidating and harmonizing disparate digital identity systems in Africa by examining the case of Nigeria. He identified several challenges similar to those discussed above. However, he also found inter-agency rivalry, which resulted in a lack of collaboration and data sharing and disparity in data captured, as an organizational impediment. There were also quality issues with the collected biometrics. The absence of a central database and a central authentication and verification service also hindered efforts to harmonize the disparate systems.

Several studies have been undertaken in Africa to understand the underpinning challenges with digital identification systems. Bhandari et al. (2021) attempted to examine the state of digital identification systems in 10 African countries. They found that several countries lacked a broader strategic vision, data protection legislation and clarity in the roles of the different private and public stakeholders. They reported issues of inclusion and privacy risks. In addition, they found that in many countries, “private entities had access to some part of the country’s digital identity data” or that foreign companies installed technologies that could enable surveillance capabilities.

Bajpai & Biberman (2021) critically assessed Kenya’s digital identification system which has been launched in 2013 . While the authors applaud the objectives of the new ID system, they point out several flaws, including the requirements to establish proof of identity, unequal access due to barriers, and the lack of comprehensive data protection and privacy frameworks even after a national data protection act was passed in 2019. Implementation of Kenya’s digital identity initiative was recently blocked by the courts as the country “lacked a legislative framework to accommodate a biometric identity system and concerns about privacy and data protection”.<sup>36</sup>

Similar challenges were also identified in other studies. Hersi and Mahadallah (2021), who have both worked to establish a national ID system in Somalia, have explored the challenges, inhibiting factors as well as potential solutions for establishing a national ID system in ID dark zones – countries that never had a fully functioning ID system. Using Somalia as a case study, their study found that undeveloped political institutions, the absence of an ID culture, mistrust fueled by lack of awareness, and conflict among government institutions were bottlenecks to creating an ID system.

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36. Eke et al., “Nigeria’s Digital Identification (ID) Management Program.”

Eke et al. (2022) sought to identify concerns related to Nigeria’s digital identification system. They concluded that privacy and security, costs, mistrust, and the possibility of human rights violations were the main concerns of Nigerians. Other issues were corruption in the process and the involvement of international companies whose roles were unclear. The absence of a data protection law, potential commercialization of citizens’ data, and lack of clarity on who will have access to what data and for what reason were said to “undermine public trust and confidence”.<sup>37</sup>

Countries outside Africa also had similar challenges. Jamaica’s national digital identity system, which attempted to use artificial intelligence, faced a similar fate after the country adopted a controversial law which made enrolment mandatory. The law was nullified by the Supreme Court which determined that “data collection methods and the protocols of intended data use did not sufficiently guarantee respect for and protection of privacy, and that there were insufficient safeguards against the misuse and abuse of the data to be collected”.<sup>38</sup> Dunn (2020) found that the law was hastily passed in the first place to meet the funding cycle for a loan from a development bank.

The majority of the studies have examined India’s Aadhaar system/digital identification system, Aadhaar, which is lauded for its reach (1.3 billion cards issued)<sup>39</sup> and cost (\$1.16 average program cost per enrolment)<sup>40</sup>, as well as for lessons and best practice. Adopting a critical success factors theory, U. B. Mir et al. (2019) examined the Aadhaar system and identified three things as critical for a digital identification system: uniqueness, security, and privacy. They also identified speed, cost, and convenience as factors that would define the performance of the system. Inclusion, platform, future-proofing, and scalability are the other factors that have been identified as critical for a digital identification system.

Sen (2019) has identified lessons from the Aadhaar system, nearly a decade after it was implemented. He highlights the “identity first” approach which is not about determining nationality or conferring rights but instead is about establishing “who a person is”.<sup>41</sup> He emphasizes the “focus on inclusion” and measures such as special procedures to capture biometric data from people with occupation-related challenges or disabilities. He advocates for empowering people and considering the users in the design of the program. The ‘do no harm’ principle was also suggested as “the bedrock guiding principle for all digital biometric identity systems”.<sup>42</sup> He recommends that countries “adopt a strategic development approach to identification” and that they should “assess their identity management situation, review their needs, and formulate a strategy”.<sup>43</sup> He also suggests that legislation for digital identification systems should clarify the scope of their application and mechanisms for safeguarding the data in terms of how it is used, accessed, and shared with third parties.<sup>44</sup>

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their needs,  
and formulate a  
strategy

37. Eke et al.

38. Dunn, “Risking Identity: A Case Study of Jamaica’s Short-Lived National ID System.”

39. UIDAI, “Aadhaar Dashboard.”

40. Sen, “A Decade of Aadhaar: Lessons in Implementing a Foundational ID System.”

41. Sen.

42. Dixon, “A Failure to ‘Do No Harm’ - India’s Aadhaar Biometric ID Program and Its Inability to Protect Privacy in Relation to Measures in Europe and the U.S.”

43. Gelb and Clark, “Identification for Development.”

44. Beduschi, “Digital Identity: Contemporary Challenges for Data Protection, Privacy and Non-Discrimination Rights.”



*The beneficiaries should be actively engaged during the process of creating policy instruments for digital identification systems*

Dunn (2020) emphasized the need for parliamentary oversight for legislation related to digital identification systems and the use of face recognition software. Ogah (2021) recommended the development of policy frameworks for harmonization and integration. The beneficiaries should be actively engaged during the process of creating policy instruments for digital identification systems.<sup>45</sup>

## 5. Background: Somalia’s digital landscape

A critical component of a digital ID program is internet infrastructure, connectivity, and digital literacy. That is why it is important to first understand the digital landscape of Somalia and assess whether those elements are in place.

Like many other African countries, Somalia’s first internet service provider was established in the late 1990s, allowing for online communication and instant money transfers. Somalia’s digital infrastructure and uptake were driven by private investors who invested more than \$190 million over the last 10 years.<sup>46</sup> It was in 2013 that the telecom company, Hormuud, launched a nationwide 3G mobile network service to provide high-speed internet service.<sup>47</sup> In 2014, some operators introduced LTE services which is the current 4G cell phone technology used by most modern smartphones.

The capital city, Mogadishu, has a fiber metropolitan ring with the rest of the country connected via microwave connections.<sup>48</sup> As of January 2022, there were 2.27 million internet users in Somalia indicating an internet penetration of 13.7%.<sup>49</sup> The average speed is 1.59 Mbps while the average cost of 1 GB is 0.63 USD, putting Somalia in 42nd place globally out of 233 countries and jurisdictions.<sup>50</sup> These statistics indicate a digital divide – a gap between those who have access to internet and those who do not – that is underpinned by issues of accessibility and affordability.

Despite the digital divide and gaps in internet coverage, connectivity in Somalia has enabled citizens, businesses, and the government to access the internet and send money via mobile. In early 2022, there were 2.05 million Facebook users in Somalia.<sup>51</sup>



*Despite the digital divide and gaps in internet coverage, connectivity in Somalia has enabled citizens, businesses, and the government to access the internet and send money via mobile*

45. Bhandari et al., “Towards the Evaluation of Socio-Digital ID Ecosystems in Africa.”

46. Fortune of Africa, “ICT and Telecom Sector.”

47. Hiiraan, “Mobile Customers Gain Access to 3G Technology in Mogadishu.”

48. Kelly and Dunand, “Overview of Digital Development in the Horn of Africa.”

49. Kemp, “Digital 2022.”

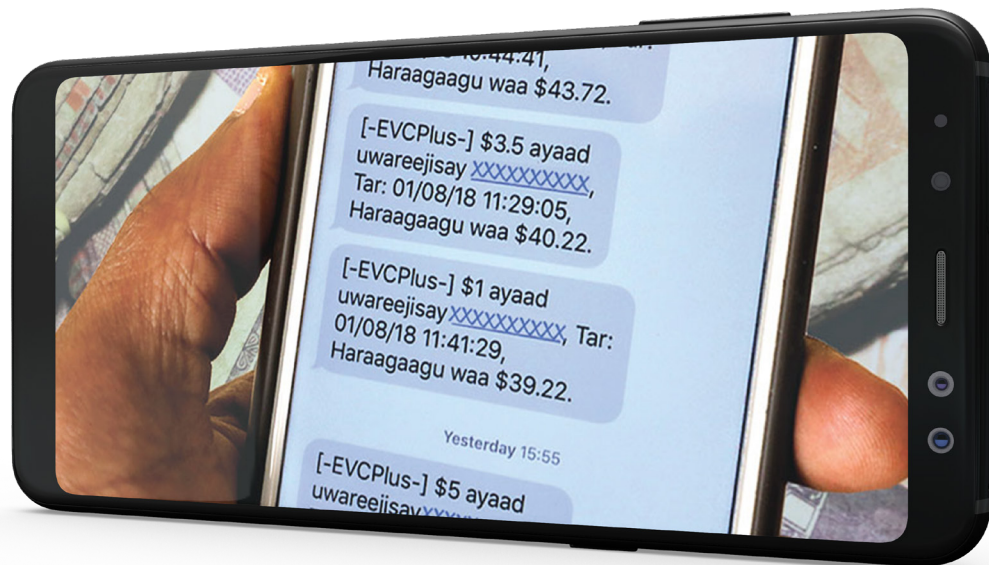
50. Cable UK, “Worldwide Mobile Data Pricing 2022 | 1GB Cost in 233 Countries.”

51. Kemp, “Digital 2022.”

52. Elmi and Ngwenyama, “Examining the Use of Electronic Money and Technology by the Diaspora in International Remittance System.”



Moreover, it has allowed businesses to set up an internet presence, facilitate instant money transfers, and advertise their products. Through ICTs, access to international trade has improved, allowing businesses to easily import products from global suppliers.<sup>52</sup> Digital media companies have also emerged in the past few years. The government has also started several digitalization initiatives moving away from paper-based processes to digitized and automated systems.



## Somali trader sends money via mobile

In 2019, the Federal Government of Somalia launched its first ICT policy and strategy to support the development of the ICT sector and the social and economic development of society. The policy focused on internet connectivity and affordability, digital infrastructure, digital literacy, and the government's use of ICT to deliver services virtually.<sup>53</sup>

Both the Federal Government and the Federal Member States have adopted digital systems to undertake public financial management, issue permits, and, in some cases, even register properties and personnel. For example, the Federal Government introduced the Somalia Financial Management Information System (SFMIS) to automate payroll and efficiently capture revenue.<sup>54</sup>

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52. Elmi and Ngwenyama, "Examining the Use of Electronic Money and Technology by the Diaspora in International Remittance System."

53. FGS, "National-ICT-Policy-Strategy-2019-2024.Pdf"

54. Adam, "Somalia Financial Management Information System."

It has employed a biometric registration system to register military personnel and remove ghost soldiers from its payroll system.<sup>55</sup> The system is currently used by over 500 people from 70 ministries, departments, and agencies. The government also introduced an online Somali Business Registration System (SBRS) to incorporate businesses and issue licenses and also to verify the authenticity of incorporation certificates and licenses.<sup>56</sup> At the Federal Member State level, Puntland’s Transitional Electoral Commission has adopted a biometric-based system to register voters for the first local one-person-one-vote elections in three districts in Puntland.

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In Somalia, several identification systems exist with some being biometric-based.<sup>57</sup> At the Federal Government level, the Department of Immigration and Naturalization issues passports and unique ID cards capturing 10 fingerprints, digital photos, and iris scans.

The Somali National Army also used biometric technology to capture biometric details of the army and the police. It is reported that a third party managed the registration process and is responsible for data ownership.<sup>58</sup>



### **Somali National Army Soldier undergoes biometric registration**

Several Federal Member States also issue state, municipal, or voter IDs capturing partial biometric information. The Ministry of Labour and Social Affairs (MoLSA) recently launched a National Safety Net Programme (Baxnaano) to provide cash transfers for vulnerable Somalis. Through this programme, 188,000 households across Somalia have been issued with a beneficiary identification card which includes biometrics.<sup>59</sup>

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55. AFP, “Under Siege, Somalia Moves to Reform Its Army, Pay Troops.”

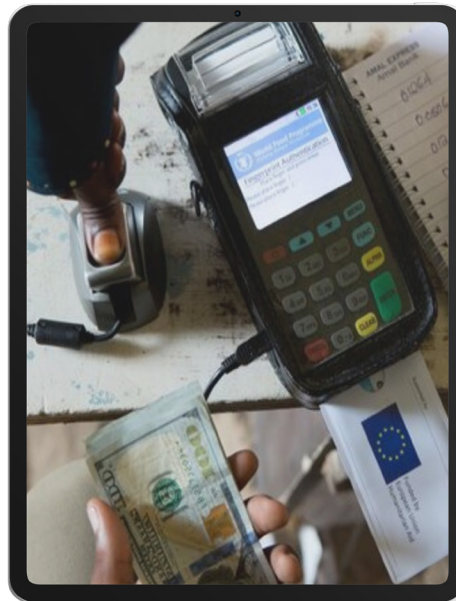
56. SBRS, “Somali Business Registration System (SBRS).”

57. World Bank, “Toward a Somali Identification System: ID4D Diagnostic.”

58. World Bank.

59. NRC, “Linkages between Legal Identity and Housing, Land, and Property Rights in Somalia.”

International organizations such as UNHCR and WFP also capture biometric detail to issue identity cards for relief intervention or cash transfers. In 2018, the International Organization for Migration (IOM), with the support of the US Department of State, supported the government in installing fingerprint readers at the points of entry to check traveler’s information against the Somali immigration authority’s official database and global suspected criminal alert lists.<sup>60</sup>



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*It is estimated that the personal data of almost half of Somalia’s population is already stored in disparate databases with significant data being shared with external entities such as INTERPOL, the US government and humanitarian organizations*

### **Identity of WFP beneficiary in Somalia is authenticated digitally for her to receive cash assistance**

The Food and Agriculture Organization of the United Nations (FAO) has also biometrically registered and issued identification cards to artisanal fishermen claiming that the Fishermen Identification Database System will help legitimate fishermen to be easily distinguished from pirates by anti-piracy forces.<sup>61</sup>

As a result of these various programmes, it is estimated that the personal data of almost half of Somalia’s population is already stored in disparate databases<sup>62</sup> with significant data being shared with external entities such as INTERPOL, the US government and humanitarian organizations.<sup>63</sup>

60. Burt, “IOM Installing 10-Digit Fingerprint Readers at Somalian Ports of Entry | Biometric Update.”

61. Privacy International, “Biometrics and Counter-Terrorism: Case Study of Somalia | Privacy International.”

62. WFP, “Somalia Databases and Beneficiary Registries for Cash Transfer Programming.”

63. Jacobsen, “Biometric Data Flows and Unintended Consequences of Counterterrorism.”



However, as these initiatives were mainly funded and undertaken by external entities, their implementation was geared towards specific projects and didn't include a systematic provision of identification cards to the whole population. As a result, they were largely insulated from direct government intervention or any attempt to recognize them as official government identification.

## 6. Somalia's proposed digital ID

In 2017, the Federal Government launched a national ID program to replace the fragmented identification ecosystem which did not reliably prove the identity of its nationals and did not meet the 'know your customer' regulations that facilitates financial transactions. The existing identification systems posed a significant threat to Somalia's financial remittance systems commonly known as Hawala. Somalia's digital identification policy recognizes the benefits of a digital ID system in facilitating the flow of remittances and increasing access to financial services, enabling trade and the digital economy, improving public service delivery, and facilitating the safe and orderly movement of people.<sup>64</sup>

The Federal Government, realizing that it could not implement a digital identification program on its own, sought the assistance of other countries and international organizations such as the World Bank. It has received a 10.3 million USD pledge from the Government of Pakistan for training, technical support, and necessary software and hardware. It has signed a memorandum of understanding with Pakistan's National Database and Registration Authority (NADRA) to provide services related to the implementation of the national identification system.<sup>65</sup> The World Bank has also agreed to provide technical support in the set-up of a foundational ID system for Somalia.<sup>66</sup>

Following various consultations, the Federal Government's Council of Ministers approved Law No. 41 to establish a National Identification and Registration Authority (DADSOM). The law which was adopted by parliament in December 2020 and signed by the president in the same month mandated DADSOM to create and maintain a national identification system. DADSOM was tasked with a) registering citizens and residents by providing them with a unique identification number and a national identity card, b) protecting personal information and biometric data, c) providing connection to the data center to public and private institutions that provide services that require identification, d) promoting the use of the foundational identification system.<sup>67</sup>

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64. FGS, "Somalia Digital Identification Policy."

65. FGS, "Somalia and Pakistan Sign Memorandum of Understanding 'MoU' for Cooperation between the Two Countries."

66. Hersi and Mahadallah, "Challenges and Solutions for the Development of an ID System in Post-Conflict Areas."

67. FGS, "Law No. 41 -The National Identification and Registration Authority Establishment Law."

The government will collect personal information (full name, date of birth, sex, and phone number which is optional) and biometrics (photo, fingerprints, and/or two IRIS scans). The law stipulated that any data collected must only be stored in DADSOM's data centers in Somalia and that the person in charge must be a Somali national. In its digital identification policy, the Federal Government committed to issuing an ID card – Tirsi – to any person living in the country and that citizenship would not be a requirement. It also stated that no eligible person would be denied enrollment due to a lack of documentation and that no one will be denied public services because of the lack of an ID card.

In 2023, following the previous year's election which led to a new president and prime minister, several legislations were returned to the Council of Ministers for resubmission. Among these was the Law No. 41 (The National Identification and Registration Authority Establishment Law) which was refined and changed. These include changes to the organizational structure of DADSOM including its name which was changed to NIRA (National Identification and Registration Authority).

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NIRA was established under a new Law on Identification and Public Registration which was signed by the president in March 2023 following its approval by the two Houses of Parliament

NIRA was established under a new Law on Identification and Public Registration which was signed by the president in March 2023 following its approval by the two Houses of Parliament.<sup>68</sup> The new Law includes new provisions for the right to identification documents, requirements for obtaining identification, data to be collected and process for managing complaints. It tasks the Minister of Interior, Federal Affairs and Reconciliation to issue guidelines detailing the registration process and issuance of the national ID, the registration cost, NIRA's logo, and other administrative matters. Most importantly, it introduces a new oversight body (Board of Directors<sup>69</sup>) which will review and approve the organization's action plan, budget as well as any bylaws and procedures of the organization.

In addition to the legislative and name changes, NIRA is actively engaged in enhancing its institutional capacity, fostering wider collaboration with various stakeholders and building trust. The organization is equipping its workforce with advanced skills in core areas like technology, while simultaneously establishing effective policies and procedures to ensure smooth operations. Additionally, NIRA is developing digital solutions such as staff ID management system and is in the process of reviewing requirements and testing the software supplied to it by NADRA. These efforts are complemented by strategies for enrollment, integration with other systems, financial sustainability and approaches to offer verification services not only to government entities but also to private sector entities in the aviation, banking, and telecommunication sectors.






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68. SONNA, “President of Somalia Signs Eight Laws to Strengthen the Foundation of the Somali Government.”

69. The Board consists of representatives from The Ministry of Interior, Federal Affairs and Reconciliation, Ministry of Health, Ministry of Internal Security, Ministry of Communications and Technology, Ministry of Commerce and Industry, Ministry of Finance, Ministry of Labour and Employment Office of the Attorney General and the Director of NIRA.

A key enabler of the proposed digital ID in Somalia is the recently passed Public Data Protection Act which protects personal data and sets the boundaries for data collection, processing, transfer, and use. The act was formally signed by the president in March 2023 and establishes a data protection authority as an independent agency that will be responsible for the implementation of the law and its enforcement. Beyond the traditional provisions such as rights of data subjects and process, compliance and enforcement mechanisms, the act stipulates conditions for cross-border data transfers. While the act prohibits the transfer of personal data to entities outside the jurisdiction of the Federal Government, it does allow for such transfer if the receiving entity has an adequate level of protection.

### Box 3: National Identification and Registration Authority Bill (2023)

-  **1. What is it:** implementing a process for registration and identification of citizens and to provide a unique identification number.  
**Eligibility:** citizens and residents (excluding visitors)
-  **2. Requirement:** proof of identity documents (dukumiinti ama wax u dhigma oo caddeynaya qofnimadiisa)
-  **3. What data will be collected:** full name, mother's name, date of birth, place of birth, Gender, photo, finger prints (10) and/or IRIS scan, phone number and/or email address.
-  **4. Data protection:**
  - No sensitive information may be collected that can be used to discriminate or exclude someone.
  - Data cannot be used for purposes other than the intended purpose except as permitted by law.
  - Data collected will be stored in the organization's databases.
-  **5. Fee:** The fees for issuing the identity numbers, printing the identity cards and for other identification services will be stipulated in a regulation that will be issued by the Minister.

## 7. Potential benefits of digital ID



*A foundational digital ID system will enable the government to legally identify its population and issue an ID that is recognized by the constitution as proof of identity*

There are several ways a digital ID in Somalia will be useful, as it has been in countries like India which has implemented a digital identification programme. Firstly, a foundational digital ID system will enable the government to legally identify its population and issue an ID that is recognized by the constitution as proof of identity. Through this, the government will have the basic information (name, sex, birthplace, date of birth and possibly biometric details) of all individuals under its jurisdiction. This information will enable the government to issue legal identity cards and identify individual, undertake verification of their identity, and authentication (confirm that an individual is who they claim to be).<sup>70</sup>

The government will be able leverage the foundational digital system functionally and, for example, issue various forms of identification cards such as passports, marriage certificates, driving licenses and other forms of identification that facilitate the delivery of government services in online and offline environments.

Digital IDs would facilitate census taking, voting, tax collection, payments and fines as well as the transfer of social welfare to vulnerable members of the community. The digital ID would also be instrumental in property and business registrations, as well as in resolving disputes arising from property ownership.

A number of interviewees stressed the importance of mandatory SIM card and vehicle registrations as there have been a number of explosive devices mounted on vehicles and triggered by mobile phones. Some interviewees said that mandatory registration would allow the government to gather evidence after explosions and also prevent attacks by tapping into phones. However, it is important to note that there were also reservations about using digital ID in that way.

Beyond government, interviewees recognize the significance of digital ID for non-government entities. They indicated that digital ID is essential in realizing the goal of “know your customer” for private sector entities in particular in the financial and telecommunication industries and in turn fostering a digital economy. It is also expected digital IDs to aid in the economy recovery of the country, lead to business efficiencies and reduce fraud as transaction costs become lower when businesses introduce interoperable systems that integrate with government systems for authentication and verification. Conversely, the digital ID will play an important role in the delivery of aid services by non-governmental organizations operating in the country. It can facilitate cash transfers and other relief services during disasters and other emergencies.

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70. Trikanad and Sinha, “Digital Identities: Design and Uses.”

## 8. Challenges and risks

The introduction of a digital identification systems in countries like Somalia is a complex undertaking and faces a wide range of technical, organizational, societal, and political challenges.



*Inadequate technical and data infrastructure can expose the systems to security and privacy risks and increase the likelihood of data breaches, loss of sensitive information, identity theft and privacy concerns*

To begin with, inadequate technical and data infrastructure can expose the systems to security and privacy risks and increase the likelihood of data breaches, loss of sensitive information, identity theft and privacy concerns. The inadequate infrastructure and connectivity can also slow down the enrollment process. Additionally, there is limited technical expertise which can lead to several implementation and operational challenges. Another significant challenge is harmonizing and ensuring the interoperability of the new digital identification system with existing government and other systems. On the other hand, integrating the new system with existing government and other systems and ensure interoperability is a key challenge. Without the technical integration and the standards, the new digital ID system risks failing as it will not be able to sufficiently identify, verify and authenticate individuals.

Although much is not known about the technological choices for the new Digital ID system in Somalia in terms of the back-end and front-end systems, there is a risk of vendor or supplier lock-in – a situation in which the government cannot transition or migrate to another system due to higher switching costs or complexity in data migration. The situation would be even worse if the supplier was a foreigner and that the system and the underlying data was hosted outside the country. These suppliers could compromise the system, grant access to the data to others or even resist changes to the system or its transfer to the government.



*The legal instruments underpinning the new system such as the privacy laws might also not be comprehensive at the moment and might lead to being challenged in courts as has happened in other countries*

Beyond the technical challenges, Somalia's proposed digital identification system faces organizational challenges that are exacerbated by weak institutional capacities, unclear roles and responsibilities and disintegrated institutions. The legal instruments underpinning the new system such as the privacy laws might also not be comprehensive at the moment and might lead to being challenged in courts as has happened in other countries.

For example, the current identification and registration law (National Identification and Registration Authority Bill) is vague on the intended purposes of the data that will be collected and doesn't explicitly refer to recently enacted data protection law. It is also not clear how the new system will be operationalized in a federal system that is not stable and has an incomplete constitution. For example, the role and authority of Federal Member States in issuing and maintenance of digital ID cards and underlying data is not clear. Furthermore, the recurring political disagreements and tensions will have huge implications in the design and roll out of the systems.

The new digital ID system is also likely to face resistance from various stakeholders, including citizens, civil society and private sector. This resistance can stem from a lack of trust, which can be caused by misinformation or security and privacy concerns. One specific concern is the potential for surveillance by the government, which may misuse the information collected from citizens to monitor their movements and target them based on their demographic characteristics. Scope creep – expanding the use of application of the digital ID system and its underlying data beyond the original purpose, and indiscriminate data sharing is also a concern that could fuel the resistance.



*Another key risk is possible exclusion which can lead to citizens and residents being denied benefits*

Another key risk is possible exclusion which can lead to citizens and residents being denied benefits. Certain groups in the community might face difficulty in enrolling in the new digital ID system because of worn out fingerprints or disability. Others might be hesitant to enroll due to misinformation and lack of trust, in particular around how the data collected will be used. Another important factor that could prevent some people from accessing a digital ID is the cost.



## 9. Conclusion and policy recommendations

Digital ID programs offer the possibility of improving the quality of life for citizens by facilitating seamless delivery of government and business services and enabling online identification and authentication. However, as highlighted in this paper, these programs also entail significant risks arising from technical, political, and organizational hurdles that could result in disastrous unintended consequences. The research has revealed how complex a digital identification system initiative in Somalia will be due to the limited resources and political and organizational challenges. The situation is further complicated by the current federal structure, involvement of external entities and existing fragmented identification systems.

Considering that several digital ID programmes have failed globally, it is important to consider the building blocks of a digital ID system. This research indicates that there are several critical success factors that need to be in place for the successful rollout and maintenance of a digital ID system in Somalia.



1. The government should strengthen and modernize the **civil registration and vital statistics systems** to ensure all vital events from birth until death for the whole population are registered accurately and on time. The new digital identification system should be linked to these systems to ensure identity information is only collected once.



2. **Regulatory frameworks** must be in place to mandate specific agencies with the design and roll out of the digital ID system, define how data will be collected, protected, and used, and most importantly what the oversight mechanisms will be to ensure the integrity of the new system. Within these regulatory frameworks, there must be provisions for protecting personal information and ensuring that the new system doesn't exclude or restrict individuals from accessing services. The adopted regulatory frameworks also need to align with the federal government structure currently in place and follow the constitution and other relevant laws and regulations.



3. It is important to have an **inclusive stakeholder engagement** process to not only create awareness about the new system but also consult stakeholders on the best and least disruptive ways to enroll citizens. Through this stakeholder engagement, there also has to be a trust building exercise where the government is open about how it intends to protect the digital ID system from external interference and possible misuse of the data.



4. The Government in collaboration with academia and other civil society organization should undertake **perception studies** to understand how different population groups perceive and understand the new identification system. Such studies can provide insights into how to design and implement the system to ensure that it is accessible and trusted by all.



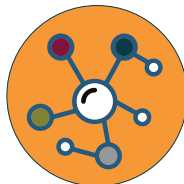
5. The government should prioritize **institutional capacity building** that enhances the capacities and capabilities of the government to successfully develop and operate effective and secure digital identification systems.



6. The right **Digital ID design** which responds to the needs of the community and the service provides and conforms to the context and the current situation must be adopted. Somalia, being a federal state with an incomplete constitution, and a country recovering from years of conflict and instability, requires a flexible digital ID system that is agreed upon by all stakeholders. This includes deciding whether to have a foundational or a functional system. It is also important to decide whether to have one single provider which is a centralized approach or a federated structure where multiple entities issue a digital ID. Other considerations included required proof for registration, cost, and locations. The role of external actors also needs to be clarified and limited to a support role.



7. A **digital infrastructure** accompanied by competent personnel and organizational support is essential, not only to ensure the security and integrity of the system but also its smooth operation. It is also important to improve connectivity and internet coverage to expand the digital infrastructure during enrollment and use.



8. The new identification system should take into account **interoperability** which will enable the new system to exchange information with other systems including those of governments at all levels as well as other service providers.



9. To ensure that vulnerable members of society are not left behind in today's digital age, it is essential for the government to have a **digital inclusion plan** that takes their needs and situations into account. This plan should include the implementation of alternative methods for registering and issuing identification documents to individuals who are disabled or have worn out fingerprints or in hard-to-reach areas.



10. The government needs to **harmonize existing identification systems** and integrate them into the new system to avoid the issuing of duplicate IDs. More importantly, the government needs to take ownership of existing identification systems administered by external entities, or at least ensure the personal data in those systems are fully protected and under the jurisdiction of the government of Somalia.



# HERITAGE

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