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The relationship between civil registration, identity management and vital statistics, and their role in ensuring legal identity in Asia and the Pacific

The importance of civil registration and vital statistics and legal identity for all to accelerate progress on the 2030 Agenda

Legal identity systems in Asia and the Pacific: civil registration, vital statistics and identity management**

Summary
The present information document discusses the relationship between civil registration and identity management systems in Asia and the Pacific, providing an overview of the approaches taken to develop and strengthen legal identity systems. It describes the functionalities of legal identity systems and the key components of present-day systems, highlighting the increasing role of digitization and structural re-organization in system reforms. Using country-specific case studies, the document outlines the diversity in the structure of legal identity systems across the region, and of the steps taken to strengthen links between civil registration and identity management. The document emphasizes the fundamental role of universal civil registration for ensuring a well-functioning, inclusive legal identity system and underscores the importance of prioritizing coordinated investments in both.

I. Civil registration as the foundation for legal identity

1. Legal identity is defined as the basic characteristics of an individual’s identity, e.g., name, sex, place and date of birth, which is conferred through civil 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; this system should be linked to the civil registration system to ensure a holistic approach to legal identity from birth to death. Legal identity is retired by the issuance of a death certificate by the civil registration authority upon registration of death.1

* ESCAP/MCCRVS/2021/L.1.
** The present document is being issued without formal editing.
2. Civil registration and identity management systems constitute the foundation of legal identity systems that are responsible for the registration of legal identity, the issuance of legal identity credentials (e.g., identity cards) and the maintenance of systems for managing these processes. A holistic approach to legal identity systems implies that every new legal identity is introduced in the identity system when a birth is registered, and removed from the system following the registration of the death. Civil registration at birth serves as the critical entry point into the legal identity system. Additional elements to ensure the uniqueness of legal identity may also be introduced by a legally recognized identity management authority, such as facial recognition, fingerprints and other biometric information. At any point, additional vital events occurring throughout the life cycle may be registered, such as marriage or divorce are reflected in the legal identity system. At the other end of the life cycle, civil registration also plays a critical role in notifying the occurrence of deaths to population registers and identity management systems, so that records can be amended accordingly, and identities retired or marked as ‘deceased’.

II. Legal identity systems

3. Over the last two decades, the digitization of civil registration and identity management systems has paved the way for a more enabling environment to collect registered identity data using a coherent electronic database architecture. These advancements have also been accompanied by an increasing ability to share data. The digitization of identity systems has resulted in significant changes to the design of registration business processes, including how registered vital events can be defined, configured, created, stored, shared, and processed.

4. Digital processing of identity data has further enabled the creation of systems that increase the efficiency of data processing and sharing between different components of a system, including with other government systems. Digitization, in addition to the development of new tools, offers an improved means to integrate different systems into one seamless system that reinforces a holistic approach to civil registration, vital statistics, and identity management, including the possibility to share information with functional registers.

5. One of the central shifts that the digitization process has instigated for civil registration, is the gradual transition from vital events-based registers, to person-based registers. The principle of one personal record per person denotes that the information is organized in such a way that every resident has only one identity and therefore, only one corresponding personal record in the system. Safeguarding this principle also means that the system is designed with a view to preventing the creation of multiple and/or fraudulent identities. This section provides an overview of some of the main components of legal identity systems.

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3 Population register is defined as an individualized data system, that is, a mechanism of continuous recording, or of coordinated linkage, of selected information pertaining to each member of the resident population of a country in such a way to provide the possibility of determining up-to-date information concerning the size and characteristics of that population at selected time intervals. See https://unstats.un.org/legal-identity-agenda/documents/UNCT-Guidelines.pdf.

4 Information pertaining to identities which have been retired or marked as deceased remain on the system, to ensure continued access to this information as needed in the future.
A. Identity management (identification) systems

6. The United Nations uses the term identity management to refer to the issuance of proof of legal identity or legal tender of identity to each individual and the maintenance of systems for managing information and documents associated with such identity. The United Nations further states the identity management system is operated by legally recognized authorities and it refers to the entire administrative, legal and institutional framework, including the personnel, the registration network, the various procedures, the processes operated for issuing the secure identity credentials used for identification of a person; oftentimes this process would also entail collecting a unique biometric identifier (i.e., facial image or fingerprints).

7. Across Asia and the Pacific, identity cards represent the main form of identity credential used in the region (see annex). When an identity card is issued, identity information is stored not only on the identification document itself, but also in a database. This database can be used to verify the validity of an identity card or for reissuance of a lost identity card. A birth certificate is usually the primary document needed for receiving an identity card and 39 members and associate members of the Economic and Social Commission for Asia and the Pacific reported that obtaining an identity card is subject to presenting a valid birth certificate. Normally, an applicant would be required to present a paper copy of their birth certificate, however, increasingly digitized and interoperable systems also allow for birth registration information to be obtained directly from digital civil registration records in some countries.

B. Unique identifiers

8. As individuals may share similar personal identity information, it is important that each person’s data can be unambiguously identified in records. Unambiguous identification of every individual can be best achieved by assigning a unique personal identifier. These identifiers can be designed as a logical construct (using a series of personal information such as date of birth, sex, area of residence etc.) or a random number sequence. Unique identification numbers consisting of a random number sequence have increasingly become standard procedure in order to mitigate any privacy concerns linked with the personal data contained within logical constructs. Unique identifiers are particularly useful in the context of digital records processing, as it becomes possible to search for and reconstruct all vital life events linked to an individual throughout the life course. Digital data processing enables instant retrieval of information from a vast amount of personal data, as well as aggregation of a wide range of personal information registered over a period of time. Use of a unique identifier may also facilitate the search for identity information across different government platforms.

C. Digitization

9. Digitization of civil registration systems has introduced new opportunities and demand for data sharing between public administration actors and their functional registers, which has resulted in a new range of services being developed as electronic platforms. Civil registration no longer serves as just a framework for certification of date of birth and other vital identity information;

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in many countries it has become the main source of identity information for various electronic platforms for public administration. Rather than developing isolated databases of beneficiaries for different government services based on information copied from identity documents/birth certificates, this information can now be obtained directly from the civil register database or population register. This means that information can be registered once and then used multiple times for different public administration purposes.

10. Public administration can benefit from increased data sharing opportunities and the ‘register once and use multiple times’ principle, under which individual data processing platforms are interconnected and interoperable. When interoperability with various functional registers is achieved in practice, its efficient functioning is conditioned upon the availability of up-to-date identity information based on civil registration.

11. Linking civil registration and functional registers in a regulated environment facilitates the supply of up-to-date and accurate information to legal identity systems. This reduces the potential for duplication or omission and ensures that the maintenance of inputs (births) and outputs (deaths) is more consistent. As noted previously, a unique identification number is an important tool to facilitate this data linkage, but it should be managed so that there is a deliberate matching process (through use of an encrypted unique identification number or intermediate matching step), in order to minimize the risk to individuals from unintended use of data or system breaches.

D. Linkages to functional registers

12. Functional registers which are usually established or authorized by the government for a specific purpose, store the identity information of rights/service users and aim to provide accurate and up-to-date information on a subset of a population for administrative purposes, to support efficient service delivery. These registers are referred to as ‘functional’ registers, since their purpose is directly linked to the discharging of government responsibilities under a specific function. Examples of functional registers include national driver registers, tax registers, education, unemployment registers, social security registers, health registers and voter registers, to name just a few. Personal information in the functional registers should reflect legal identity as registered in the legal identity management system, but this is not always the case as these systems often operate in silos.

13. Contrary to functional registers which are established for specific sectoral service, civil registration and national identity systems are recognized as foundational registers. They provide ‘general purpose’ identity as a public good for use across sectors. Foundational registers and the systems supporting them are typically owned and operated by the government and aim for national coverage of a population; they provide credentials that can function as an official form of identification and can underlie multiple functional purposes. Population registers, as an example, are essentially an inventory of all residents in an area (usually a country).

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7 Ibid.
8 Depending on the country context, the age at which a person may obtain a legal identity varies.
III. Approaches to strengthening legal identity systems in Asia and the Pacific

14. Administrative traditions, institutional arrangements and the division of responsibility over civil registration and national identity card issuance play an important role in overhauling identity management systems. In some countries, modernization of legal identity systems has mirrored existing institutional arrangements while in other countries, it has prompted institutional reforms.

15. The design of present-day identity management systems is further influenced by the ability of civil registration systems to collect all vital events of a population in a timely manner. With this in mind, the following approaches to designing and strengthening legal identity systems have been observed in this region:

(a) In countries where vital event registration rates have been traditionally high, authorities have often opted to digitize ongoing registration processes, including legacy vital event paper records. With the introduction of unique identification numbers, records are organized as person-based records. These records have become the foundation of national population registers, to which other personal information is added (i.e. place of residence or issued national identification);

(b) Where household/family registers have traditionally been the basis for identity management, the approach to updating the information in these registers has evolved over time as legal requirements to add information in these registers has changed. With the strengthening of civil registration and increased registration rates, registration certificates have become the central requirement for adding identity information to a household/family register. In a digitized identity management system, family/household registers are updated automatically with new information each time a new vital event is registered;

(c) In countries where civil registration authorities are making efforts to increase coverage of vital event registration, vital event registration certificates are not always available and therefore these records do not provide a solid data source on which to base an identity system. To complete the transition towards a digitized identity system, authorities often work to integrate civil registration and identity management systems under a single authority. This may be followed by an introduction of a population register based on personal data collected through the issuance of national identifications. Civil registration personal records are further added to the register by assigning unique identification number with the goal that each new person is added to the register upon birth and based on birth registration.

16. Legal identity systems are dynamic systems in which changes are reflected across the system as new vital events are registered. Population registers, and functional registers also change dynamically as individuals immigrate or emigrate internationally. Such dynamic systems can be described by the “stock-and-flow” model. In terms of legal identity systems and population registers, the stock represents the legal identity data of holders of issued identity cards. As new identity cards are issued or replaced to reflect new characteristics of legal identity (i.e. to reflect marriage) or if an individual dies and the identity card is no longer valid, the stock of data in the system changes dynamically. In countries that operate a population register, the data stock can also be affected by changes in place of residence or immigration from or emigration abroad. This information that represents the dynamics of the system is referred to as the flow.
17. Harmonization between civil registration and identity management systems (including with the population register where applicable) is a critical component of the “stock-and-flow” approach to ensure people’s ability to prove who they are from birth to death. As countries develop and implement holistic approaches to civil registration and identity management, the central challenge that remains is how to build the initial stock of identity data to initiate the repository of legal identity data. In devising strategies to build data stock, an initial data repository can be derived from a system that already has readily available legal identity data that can be digitized.

18. In Turkey, for example, initial data stock was obtained through the lengthy process of digitization of civil registration records, resulting in a digital civil register which is integrated with an identity management system and population register. A similar approach was also taken in the Republic of Korea where the data stock was built by digitizing the legacy paper-based family register and gradually introducing interoperability with the identity management system. Other strategies such as identity card enrolment programmes have been used in countries such as Armenia to establish the stock of the national population register.

19. Depending on the country context the ministerial and institutional arrangements between civil registration and identity management systems may be classified as the following:

(a) Integrated digitized civil registration and identity management systems operated by a single agency;
(b) Interoperable digitized civil registration and identity management systems operated by separate agencies;
(c) Civil registration and identity management systems integrated within a national population register;
(d) Civil registration and identity management operated by separate agency fully or partially digitized, but without provision for data exchange.
20. The following sections present the experiences of countries in Asia and the Pacific in the creation and reform of legal identity systems, according to the operational arrangements between ministries and institutions responsible for civil registration and identity management.

A. Integrated digitized civil registration and identity management systems operated by a single agency

21. The development of a digitized identity systems in many countries has led to a stronger integration of civil registration and identity management under a single authority through institutional reforms. The following section describes the experiences of Kyrgyzstan and Turkey in building a national identity management system, similar to the approaches taken by many countries across Asia and the Pacific (a list of selected countries is presented in the annex of this document).

Box I

Kyrgyzstan

Since a rapid transformation process in 2014, from a traditionally paper-based civil registration, vital statistics and identity management system to a fully integrated and digitized system, Kyrgyzstan’s legal identity system has been managed entirely by a singular government agency. This system encapsulates a holistic approach to civil registration, vital statistics, and identity management, whereby interoperability between these functions facilitates the continuous registration of life events associated with a legal identity from birth to death. All vital events are registered digitally and linked using a unique identification number which is assigned to every individual at birth and stored in the central civil register.

The central civil register is one of several databases that forms a larger information and communications technology system known as the Unified Population Register, that stores identity information linked using the unique identification number. Legal identification credentials are issued upon request, such as national identity cards and travel documents, using the up-to-date identity information stored in the population register. This continuously updated population register also facilitates the generation of timely and accurate vital statistics by the National Statistics Committee. Other government agencies that require access to this identity data for the purpose of service delivery, are granted access based on a signed memorandum of understanding. Data sharing within and between government agencies has been achieved by implementing an open-source data exchange platform, known as X-Road, which expedites the exchange of information over the internet, whilst ensuring confidentiality and interoperability.

The simultaneous strengthening of civil registration and identity management systems in Kyrgyzstan has transformed the legal identity system and contributed to an overall increase in public governance efficiency. At the individual level, the advent of digitally stored identity information which is immediately accessible by multiple government agencies, has streamlined the process to access and enrol for essential government services, which previously required paper documentation.

Box II

Turkey

In Turkey, civil registration and identity management systems have traditionally been the responsibility of the Ministry of Interior. The gradual digitization of civil registration and identity management systems has strengthened the links between these systems. The Central Civil Registration System was established in 2000, following an approximately 30-year long process to shift legacy paper-based vital event registration to digital records. This coincided with the shift from a vital events-based register to a person-based register, comprising an individual’s registered vital events and enabled by assigning a unique personal identification number to each registered citizen. In addition to storing civil registration information, the Central Civil Registration System also stores other personal information such as place of residence address and can therefore be characterised as a population register.

The Identity Information Sharing System introduced in 2005 is a nationwide data interoperability layer that enables secure, one-way access to permitted data in the Central Civil Registration System, thereby significantly increasing the speed and efficiency of services provided to the citizens by the users of the system. The system has become the backbone of the eGovernment infrastructure in Turkey and currently, more than 2,500 entities benefit from its implementation.

The implementation of a population register in Turkey which includes an interoperability platform to enable external users to make use of personal data (as permitted by law), demonstrates that implementation of a legal identity system in a holistic manner is a lengthy process but can result in significant benefits including the improvement of public administration performance.


B. Interoperable digitized civil registration and identity management systems operated by separate agencies

22. In countries where civil registration and identity management systems have historically been the responsibility of different institutions and where institutional integration was not considered, governments have worked strategically to introduce digital interoperability between these two institutions. The following experience of building a national legal identity system in Armenia illustrates similar approaches taken by many countries across Asia and the Pacific with complete information presented in the annex of this document.
Box III
Armenia

In Armenia the two main components of the legal identity system (civil registration and identity management system) are the responsibility of separate agencies. Civil registration comes under the authority of the Ministry of Justice, while the identity management system which issues identification cards and the population register are operated by the Police. Civil registration functions as a fully digitized system. All registered information is directly entered into the electronic civil register and the assignment of a unique identification number enables the linkage of all digital vital event records belonging to a specific person. The population register is the main instrument used to manage identity data and issue national identification cards, as well as travel documents. Interoperability between the digital civil register and the population register ensures that each time a new vital event is registered, information is automatically updated in the population register. and that during vital event registration, an informant’s data can be obtained directly from the population register. This serves as an additional safeguard to ensure that information is accurate.

While the current legal identity system is operational, the transition from a paper-based legal identity system to a fully digital system is still ongoing. Although all current vital events are now registered and shared digitally, the digitization of legacy vital event records are still underway. Planning for interoperability with other functional registers is underway, where the population register will function as the central platform for digital verification of legal identity information by external functional registers.

As Armenia’s experience demonstrates, reforms and improvements to the national legal identity system through the digitization of civil registration and identity management systems, does not necessitate the institutional integration of these two systems. As long as interoperability is implemented between the two systems, they can operate efficiently while being operated by two different agencies. It further shows that achieving full digital transformation of legal identity systems can be a lengthy process due to the time it takes to digitize legacy, paper-based vital event records.


C. Civil registration and vital statistics and identity management systems integrated within a national population register

23. In countries where proof of legal identity was traditionally provided through enrolment in family/household registers, the digitization of legal identity systems has not generated major institutional changes. It has however enabled better integration with other registration actors, resulting in a more pronounced role of civil registration in the process of updating family/household registers. The following elaboration of the experience of the Republic of Korea in building a national identity system, illustrates similar approaches taken by many countries in Asia and the Pacific, with complete information presented in the annex of this document.
Box IV

Republic of Korea

The legal identity system in the Republic of Korea is fully digitized, consisting of the Family Relationship Registration System (civil registration) and the Resident Registration System (identity management system) constituting its core. The Family Relationship Registration System is built on the foundations of a legacy, paper-based family register and is intended to register individual family members and their relationships in the process of vital event registration such as birth, death, marriage, divorce, and adoption. A unique identification number is used to match different vital event records. On the other hand, the Resident Registration System collects and stores identity information on people’s place of address and is responsible for the issuance of national identification cards. As the two systems are interoperable, the information in the Resident Registration System is automatically updated whenever a new vital event is registered or a new layer of identity data is recorded in a personal record in the Family Relationship Registration System, and from the perspective of the individual, it reduces the need for paper-based documentation. The national identity card which also includes some biometric information such as a fingerprint, is used to verify a resident’s identity to access a wide range of government services and activities (e.g. voting), in addition to verifying identity for other commercial transactions such as banking, internet/mobile contracts and health insurance.

The experience of the Republic of Korea is important for demonstrating the role of continuous improvement and upgrades to respond to the challenges of maintaining a well-functioning civil registration and identity management system that can serve a population efficiently. These transformations have included the digitization of civil registration and identity management systems and full interoperability between these systems. This example also attests to the pivotal role that universal registration plays in providing the strong foundation for an identity management system, where information is continually updated as they are input into the civil registration system ensuring that the information is readily available at all.


D. Identity management systems undergoing integration with the civil registration system

24. Countries with weaker civil registration infrastructure, may face a significant challenge to integrate registration records stored in local community archives and developing strategies for increasing civil registration rates. Their approach to strengthening identity management systems often focuses on the digitization of ongoing registration processes and the digitization of legacy records. This forms the basis for a population register that is also integrated with the national identity database and identity card issuance process. The following elaboration of the experience of Lao People's Democratic Republic in building an identity management system is an illustrative example of similar approaches taken by other countries across Asia and the Pacific with the complete lists presented in the annex of this document.
Civil registration in Lao People’s Democratic Republic is paper-based, with registration data stored in paper format in local registration centres. Registration certificates in most instances remain the only legal proof of registered vital events. Since 2015, a chip-enabled national identity card has been issued to everyone aged 15 and over, subject to presenting a birth certificate to verify identity and in line with the imperative to increase the performance and efficiency of public administration systems, the national legal identity system in Lao People’s Democratic Republic is undergoing a major transformation. Since mid-2020, work has begun to establish the Civil Management Information System under the authority of the Ministry of Home Affairs. The introduction of this system aims to shift civil registration process from paper-based to digital registration and data storage. The Civil Management Information System is currently being pilot in a few selected districts.

The system is designed to mirror a modern, holistic approach to civil registration and vital statistics, identity management, and management of legal identity from birth until death. The Civil Management Information System will automatically generate a unique identification number when a birth is registered and this same number can be used to obtain a national identity card at age 15 years and over. Once the system is fully operational, it will be possible to share civil registration records (as permitted by law) with the Lao Statistics Bureau and to the Ministry of Public Security for household records and identity management. The Civil Management Information System will be interoperable with the database for the family book and national identity cards, as well as with the District Health Information Software platform operated by the Ministry of Health manages.

In Lao People’s Democratic Republic, the benefits of a holistic approach to civil registration and identity management are anticipated as the Civil Management Information System is rolled out across the country. However, experience from other countries across the region shows that although these transformations can be lengthy, the benefits and opportunities of a fully operational digitized and interoperable legal identity system will be multifold.


E. **Identity management based on digital identity/non-civil registration and vital statistics based identity systems**

25. Besides existing civil registration and other functional identification documents, examples also exist of legal identity systems that are built upon the uniqueness of biometric data to enrol and later authenticate users of services provided both by government and private stakeholders. One of the most notable examples of such an approach is the Aadhaar digital identity in India.
India’s identity management system has undergone a dramatic change following the introduction of the Aadhaar identification number. The Aadhaar number is a 12-digit random number issued by the Unique Identification Authority of India to the residents of India. During enrolment in the central Aadhaar digital repository, biometric and biographical data is collected and stored. To ensure Aadhaar is accessible to all, including marginalized and vulnerable populations multiple options are available for obtaining an Aadhaar card. Identity data may be proven with a birth certificate, but other documents are also accepted to verify legal identity, such as a passport, voter’s identification or driving licence.

Once the enrolment is complete, the biometric information of the enrolled residents is hosted on a central online server, which is accessible to authorized government agencies and private stakeholders for verifying claimed identity of beneficiaries. Functional registers can be populated with identity data after confirming that the applicant’s Aadhaar number satisfies the biometric authentication.

Aadhaar cards constitute the primary form of legal identity in India, with clear benefits for individuals who no longer need to present paper documentation to verify their identity when accessing services, benefits, subsidies and financial services. The unique 12-digit identification number is also based on individual biometric information, removing the potential for duplication or the creation of counterfeit identities.

### IV. Conclusion

26. The case studies presented in this paper demonstrate the different approaches to legal identity systems implemented in countries across Asia and the Pacific. These different experiences are important for countries looking at establishing or improving civil registration and identity management systems. Some countries have adopted integrated systems whereby civil registration and identity management are operated under one ministry, while others manage these systems separately. Digital transformations and modifications to the organisational structure of these systems have further advanced interoperability between civil registration and identity management systems, resulting in a more holistic approach to legal identity from birth to death. However, a commonality shared by almost all legal identity systems, is the need for strong civil registration and vital statistics systems that ensure the universal registration of all vital events from birth until death. A strong civil registration and vital statistics system is uniquely positioned to continuously provide cost-effective and up-to-date identity information on a population.

27. The linking of civil registration and vital statistics systems with identity management systems marks the foundational building blocks to provide legal identity for everyone, in line with target 16.9 of the Sustainable Development Goals to provide legal identity for all by 2030. However, in many countries, this requires strengthening of civil registration and vital statistics systems to provide the underlying data to establish a legal identity and the information on death to retire it. This calls for adequate investment, use of innovative technologies and alterations to the legal and institutional frameworks to ensure interoperability between systems. The multisectoral nature of civil registration and vital statistics also requires effective coordination among stakeholders to initiate successful reform of legal identity systems that are sustainable and inclusive. The linking

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10 See https://uidai.gov.in.
of civil registration and identity management systems, not only supports good governance and the ability to produce accurate and timely vital statistics, but it is also key to streamlining access to essential services such as education, health and social welfare, thereby facilitating the realization of people’s rights and development.

28. The implementation of the United Nations Legal Identity Agenda presented in the document ESCAP/MCCRVS/2021/7 on the intersection between civil registration and identity management systems in Asia and the Pacific represents an opportunity to achieve universal legal identity from birth to death in Asia and the Pacific. As presented in this paper, many member States have made significant progress towards this objective and are now seeing the benefits of strong legal identity systems. As the region embarks on the second half of the Asia and Pacific Civil Registration and Vital Statistics Decade (2015–2024) and implements the 2030 Agenda for Sustainable Development, the examples provided in this paper show the region is moving towards the right direction.
## Annex

### Overview of approach to modernization of national legal identity systems of select countries in Asia and the Pacific\(^1\)\(^1\)

<table>
<thead>
<tr>
<th>Country</th>
<th>Birth registration rate(^2)</th>
<th>Death registration rate(^2)</th>
<th>National ID card issued</th>
<th>Digitized civil registration system</th>
<th>Digitized legacy civil registration paper records</th>
<th>Digital connection between civil registration and identity management system or population register</th>
<th>Type of connection between civil registration and national ID card issuance systems</th>
<th>National ID card issuance subject to digital identity verification in civil registration records</th>
<th>Population register</th>
<th>Civil register/identity management/population register interoperable with other government systems</th>
<th>Unique identification number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>42.3% (2015)</td>
<td>10.2% (2018)</td>
<td>YES</td>
<td>Partially</td>
<td>NO Implementation underway</td>
<td>Systems not digitally connected</td>
<td>YES (were applicable)</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Armenia</td>
<td>98.7% (2015–16)</td>
<td>99.2% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>Partially</td>
<td>YES Interoperable systems</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>93.6% (2006)</td>
<td>100% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>Partially</td>
<td>YES Interoperable systems</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>56% (2019)</td>
<td>20.1% (2017)</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>Systems not digitally connected</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td></td>
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<tr>
<td>Bhutan</td>
<td>95.6% (2018)</td>
<td>74.9% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>N/A</td>
<td>YES Integrated system</td>
<td>YES</td>
<td>NO</td>
<td>N/A</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Cambodia</td>
<td>73.3% (2014)</td>
<td>36.2% (2018)</td>
<td>YES Implementation underway</td>
<td>Partially</td>
<td>Implementation underway</td>
<td>Systems not digitally connected</td>
<td>Implementation underway</td>
<td>Implementation underway</td>
<td>NO</td>
<td>Implementation underway</td>
<td>YES</td>
</tr>
<tr>
<td>China</td>
<td>N/A</td>
<td>62% (2015)(^3)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES Integrated system</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td>99.6% (2015)</td>
<td>100% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES Integrated system</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td></td>
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<tr>
<td>Indonesia</td>
<td>72% (2018)(^4)</td>
<td>N/A</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES Integrated system</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td></td>
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<tr>
<td>Iran (Islamic Republic of)</td>
<td>98.6% (2010)</td>
<td>96.4% (2019)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES Integrated system</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>99.7% (2015)</td>
<td>99.8% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Interoperable systems</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Information on the members and associate members of the Economic and Social Commission for Asia and the Pacific is not provided in the instances where countries do not issue identification cards as a mandatory requirement or where there is lack of sufficient accessible information on the characteristics of the system.

\(^2\) Getting Every One in the Picture: A snapshot of Progress Midway through the Asia and Pacific Civil Registration and Vital Statistics Decade (United Nations publication, 2021).
<table>
<thead>
<tr>
<th>Country</th>
<th>Birth registration rate¹</th>
<th>Death registration rate²</th>
<th>National ID card issued</th>
<th>Digitized civil registration system</th>
<th>Digitized legacy civil registration paper records</th>
<th>Digital connection between civil registration and identity management system or population register</th>
<th>Type of connection between civil registration and national ID card issuance systems</th>
<th>National ID card issuance subject to digital identity verification in civil registration records</th>
<th>Population register</th>
<th>Civil register/identity management/population register interoperable with other government systems</th>
<th>Unique identification number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kyrgyzstan</td>
<td>98.9% (2018)</td>
<td>84.6% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>Partially</td>
<td>YES</td>
<td>Integrated system</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Lao People's Democratic Republic</td>
<td>73% (2017)</td>
<td>42.3% (2018)</td>
<td>YES</td>
<td>Implementation underway</td>
<td>NO</td>
<td>NO</td>
<td>Systems not digitally connected</td>
<td>NO</td>
<td>Implementation underway</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Malaysia</td>
<td>100% (2018)</td>
<td>97.9% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Integrated system</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Maldives</td>
<td>98.8% (2016–17)</td>
<td>88.8% (2017)</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>Systems not digitally connected</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Mongolia</td>
<td>99.6% (2018)</td>
<td>96.4% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Integrated system</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Nepal</td>
<td>77.2% (2019)</td>
<td>53.4% (2017)</td>
<td>YES</td>
<td>Implementation underway</td>
<td>NO</td>
<td>Implementation underway</td>
<td>Integrated system</td>
<td>YES</td>
<td>Implementation underway</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Pakistan</td>
<td>42.2% (2017–18)</td>
<td>51.6% (2018)</td>
<td>YES</td>
<td>Partially</td>
<td>YES</td>
<td>YES</td>
<td>Interoperable systems</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Philippines</td>
<td>91.8% (2017)</td>
<td>96.7%a (2018)</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
<td>Systems not digitally connected</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>100% (2018)</td>
<td>100% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Interoperable systems</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>100% (2018)</td>
<td>100% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Interoperable systems</td>
<td>YES</td>
<td>Implementation underway</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>97.2% (2006–07)</td>
<td>98.9%a (2018)</td>
<td>YES</td>
<td>Implementation underway</td>
<td>NO</td>
<td>NO</td>
<td>Systems not digitally connected</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
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<tr>
<td>Tajikistan</td>
<td>95.8% (2017)</td>
<td>74% (2018)</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>Systems not digitally connected</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
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<tr>
<td>Thailand</td>
<td>99.8% (2019)</td>
<td>89.5% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Integrated system</td>
<td>YES</td>
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<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Turkey</td>
<td>98.4% (2018)</td>
<td>99.1% (2018)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Integrated system</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Country</td>
<td>Birth registration rate(^{**})</td>
<td>Death registration rate(^{***})</td>
<td>National ID card issued</td>
<td>Digitized civil registration system</td>
<td>Digitized legacy civil registration paper records</td>
<td>Digital connection between civil registration and identity management system or population register</td>
<td>Type of connection between civil registration and national ID card issuance systems</td>
<td>National ID card issuance subject to digital identity verification in civil registration records</td>
<td>Population register</td>
<td>Civil register/identity management/population register interoperable with other government systems</td>
<td>Unique identification number</td>
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<td>------------------------------------------------</td>
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</tr>
<tr>
<td>Uzbekistan</td>
<td>100% (2006)(^{***})</td>
<td>93% (2016)(^{***})</td>
<td>YES</td>
<td>Implementation underway</td>
<td>Implementation underway</td>
<td>NO</td>
<td>Systems not digitally connected</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>96.1% (2014)</td>
<td>N/A</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Interoperable systems</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

** per cent of all deaths that take place in the territory and jurisdiction in the given year are registered.

*** per cent of births in the territory and jurisdiction in the given year are registered.

The information in the table represents the Author’s analysis of national legal identity systems of these countries based on a desk review of relevant publications and resources available online and in some cases reflect the author’s past interviews with relevant authorities (Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Maldives, Mongolia, Philippines, Republic of Korea, Tajikistan and Uzbekistan).

The following is a select of online resources consulted to inform the analysis of each country:

**Afghanistan**


www.refworld.org/pdflid/544a4c434.pdf.


Armenia
www.crvssystems.ca/sites/default/files/assets/files/CRVS_Armenia_e_WEB.pdf.

Azerbaijan

Bangladesh

Bhutan

Cambodia
China

www.ncbi.nlm.nih.gov/pmc/articles/pmc2990197/.
www.chinacheckup.com/blog/china-id-card.

Georgia


Indonesia


Iran (Islamic Republic of)


Kazakhstan

Kyrgyzstan


Lao People’s Democratic Republic


Malaysia


Maldives

https://unstats.un.org/unsd/demographic/meetings/wshops/korea/2014/docs/m01s03-04-mdv.pptx.

Mongolia

Nepal


Pakistan

www.unicef.org/rosa/reports/civil-registration-south-asia-0.
www.crvssystems.ca/country-profile/pakistan.

Philippines

Republic of Korea


www.crvssystems.ca/sites/default/files/assets/images/CRVS_SouthKorea_e_WEB.pdf.

Russian Federation


Sri Lanka


Tajikistan


Thailand


Turkey


https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1032&context=ncdg.

Uzbekistan


Viet Nam