Relationship Between Civil Registration and Civil Identification

Recognizing the need for secure and efficient systems, and how CR and CI systems can make life easier for citizens and residents while strengthening national governance systems.

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1 Purpose

This note discusses the different models for linking civil registration (CR) and civil identification (CI), and possible adjustments that may be considered in the relationship between CR and CI for the benefit of users, both individuals and the public sector. Specifically it analyzes the extent to which the developments in CI systems are building on and taking advantage of existing CR systems, and identifies opportunities for leveraging CR and CI strengths to the mutual benefit of both, organizationally and operationally. Since several countries are investing in building up CI systems before upgrading the CR system, this note also examines how mature, or maturing, CI systems can contribute to the modernization of CR systems.

2 BACKGROUND

International conventions have firmly established the right to identity as a human right. The responsibility of the civil register as the creator and custodian of the records that establishes people's legal identity is equally recognized.

Civil registration establishes the legal identity of a person through "the continuous, permanent, compulsory and universal recording of the occurrence and characteristics of vital events pertaining to the population as provided through decree or regulation in accordance with the legal requirements of a country." (IDB 2015)

The civil register's primary purpose is to be the custodian of identity records and issue certificates to verify people's civil status. The certificates are birth certificates, marriage certificates, divorce certificates and death certificates. In the case of adoptions or recognitions, an amended birth certificate will be issued. Legislation in most countries requires the presentation of certificates issued by the CR for numerous administrative legal processes. The certificates are legal tenders and are often referred to as *breeder documents* in that they form the foundation for other identity documents.

Furthermore, statistics complied by the CR are an important source of vital statistics. The monitoring of at least 40 of the indicators for the Sustainable Development Goals (SDGs) rely directly on the vital statistics that the CR produces, which underscores the importance of universal birth registration, not only to establish a person's legal identity but also as a key institution for sustainable development.

SDG 16.9 that calls for "by 2030, provide legal identity for all, including birth registration" is of particular relevance to the functionality of the CR and the CI.

Civil identification is the establishment of a unique identity of an individual through the verification, registration, management, and conservation of other personal data such as a unique identity number, signature, photograph and/or biometric data in addition to the existing biographic data, with the goal of establishing a unique civil identity in the public sector space.

While there is neither international agreement that explicitly defines civil identification nor do any conventions exist that classify it as a human right, for some time now globally there has been an increasing demand in uniquely establishing a person's identity for verification and authentication purposes.

The purpose of verification and authentication of identities is to grant permission of access for the claimant: access to a benefit, a service, a right, or an obligation, and the determination that the right individual is granted access. These processes must be carried out in a trusted and trustworthy framework that incorporates the combination of systems, rules, and procedures that define the entitlement, use, and protection of personal information.

Having this framework in place will also allow for timely and efficient delivery of public services that will ultimately result in better and more efficient governance structures, and possibly also considerable savings for the public sector.

3 Links between Civil Registers and Civil Identification Registers – the models

Civil registers (CR) and civil identification registers (CIR) are both highly specialized public sector agencies. They are considered essential institutions in the public sector in that they are the exclusive custodians of the public records of peoples' legal identities. Both are considered primary, or foundational, registers because they provide the institutional anchoring for verification and authentication of identities. The two registers play different roles in that they issue different identity credentials (see Figure 1) but this circumstance also make them interdependent.

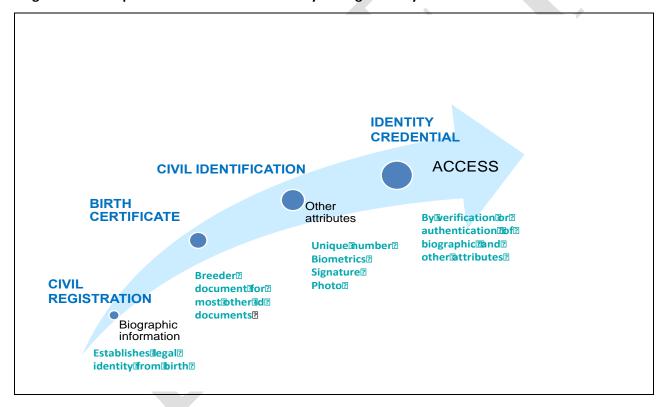


Figure 1. Interdependent and connected identity management system

3.1 Institutional arrangements

Where the CR and CIR are located administratively in the government organizational chart varies from country to country and depends on the governmental organizational structures as well as the laws governing the two registries.

A revision of the CR and CI systems in 198 countries showed that only two countries do not have a CR¹. 27 countries do not have a CIR, but at least four of these (Brazil, Jamaica, Norway and the Philippines) are in the planning stages of setting up agencies that will be issuing national identity cards.

The prevailing institutional anchoring for CIRs are within the Ministry of the Interior, followed by the Ministry of Justice and Electoral Tribunal. For CRs the majority is within the Ministry of Justice, followed by the Ministries of the Interior and Health. 92 of the countries had the CR and the CIR under the same ministry.

Table 1 Key Institutional models

	Autono mous	Ministry of Interior*	Ministry of Justice	Ministry of Health	Electoral Tribunal	Other	No CR	No CIR
CR	5	51	82	20	7	20	2	-
CI	6	114	18	-	15	18	-	27
In								
same	4	8	68	-	6	6		
inst								

^{*} Ministry of Interior and Ministry of Home Affairs used synonymously

The institutional panorama in the South Asia Region is similarly distributed as Table 2 shows. Seven of the eight countries in the South Asia Region provide official government issued identity cards to their citizens, whereas India issues an aadhar number and a card to all residents.

Of the eight countries in the South Asia region, five countries, Afghanistan, Bhutan, Maldives, Pakistan, and Sri Lanka, have their respective CR and CI agencies within the same ministry, thus having an institutional structure than can facilitate inter-operability between the two. In the cases of Bangladesh and Nepal, their CR and CI agencies are located within different ministries.

The situation for marriages and divorces vary between the countries, and all eight countries have special legislation and registration for religious marriages. Not having a unified register for all marriages and divorces can cause problems for divorces, re-marriages and inheritances. It also can be an obstacle to obtain the relevant certificates to access assistances such as pensions, welfare payments or widow/widower benefits.

NB As a comment to the participants from the countries in the South Asia Region, the author of this note is seeking inputs and corrections to information to Table 2, which reflects information found on line. The corrections will be reflected in the final version of this technical note.

¹ ID4D Global Dataset, version 2.0, 2016

Table 2. Institutional arrangements for South Asia Region²

	Afghanistan	Bangladesh	Bhutan	India	Nepal	Maldives	Pakistan	Sri Lanka
CR – births	Afghanistan	Office of the	Ministry of	Ministry of	Ministry of	Department of	Ministry of	Ministry of
and deaths	Central Civil	Registrar of	Home and	Home Affairs.	Federal Affairs	National	Interior,	Internal Affairs.
	Registration	Birth and	Cultural	Office of the	and General	Registration.	Provinces	Department of
	Authority	Death. ³	Affairs ⁴	Registrar	Administration.	Municipalities ⁷	under Local	Registrar
	(ACCRA)			General ⁵	Department of		Government	General ⁸
	(Formerly				Civil		and Rural	
	Ministry of				Registration. ⁶	P	Development	
	Interior Affairs).						Departments.	
Registration	Ministry of	Ministry of	Ministry of	District	Ministry of	n/d	Ministry of	Ministry of
of marriages	Justice ⁹	Law, Justice	Home and	Magistrate ¹¹	Federal Affairs		Interior,	Internal Affairs.
and divorces		and	Cultural		and General		Provinces	Department of
		Parliamentary	Affairs ¹⁰		Administration.		under Local	Registrar
		affairs. Also			Department of		Government	General ¹³
		Office of the			Civil		and Rural	
		Muslim			Registration.12		Development	
		marriage					Departments.	
		registrar						

² All website were accessed between June and July, 2018

³ http://br.lgd.gov.bd/english.html

⁴ http://www.mohca.gov.bt/index.php/about-department-2/

⁵ http://censusindia.gov.in/

⁶ http://docr.gov.np/

⁷ https://www.wikiprocedure.com/index.php/Maldives - Apply to Register Birth and Obtain Birth Certificate

⁸ http://gic.gov.lk/gic/index.php/en/component/info/?id=50&task=subcat

⁹ https://www.wikiprocedure.com/index.php/Afghanistan - Register a Marriage

¹⁰ http://www.mohca.gov.bt/index.php/about-department-2/

¹¹ http://www.madaan.com/marriage.html

¹² http://docr.gov.np/

¹³ http://www.rgd.gov.lk/web/index.php/en/services/civil-registration/marriage-registration.html#registration-of-marriages-general

CI	Ministry of the Interior Affairs ¹⁴	Bangladesh Election Commission ¹⁵	Ministry of Home and Cultural Affairs	UIDAI ¹⁶	Ministry of the Interior ¹⁷	Department of National Registration ¹⁸	19	Ministry of Internal Affairs ²⁰
ID card name	e-tezkera	National identity card (NID)	Citizenship identity card (CID)	Aadhar	n/d	n/d	Computerized National Identity Card (CNIC)	National identity card
Age for issuing ID card	18	18	15	n/d	16	n/d	18	16

¹⁴ http://moi.gov.af/en/page/3177/deputy-ministries/administration

¹⁵ http://www.nidw.gov.bd/

¹⁶ https://www.uidai.gov.in/

¹⁷ http://daolalitpur.moha.gov.np/home/pages/1346

¹⁸ dnr.gov.mv

¹⁹ https://www.nadra.gov.pk/identity/identity-cnic/

http://www.drp.gov.lk/

When the CR and CIR are located within the same government institution, there could be a greater chance to achieve complete CI registration, especially in the cases when a country has reached universal birth registration.

A lot of attention is given to CI and civil identification systems. This may be due to a combination of need for authentication and the rather large investments that are needed to set up a system that uniquely and securely identifies large populations, and is capable of immediate authentication. However, the importance of the CR as the institution that establishes identity through birth registration is often overlooked. Regulations may still require people to bring a copy of birth certificates in order to enroll in CIRs and may cause individuals without birth certificates to be denied enrollment. Efforts to modernize the CIR and treat it as a "foundational register" without modernizing the CR in parallel may lead to the need for potentially costly re-designs of national identity management systems.

Locating the two agencies within different government institutions poses a higher risk for exclusion when people fall between the cracks, as well as for duplication and mismanagement of records. Studies have shown that women, children, minority groups, and the poor are at greatest risk of non-registration (ADB 2017; Harbitz and Tamargo, 2009). If individuals are not registered in the CR, the procedures for enrollment in the CI can be complicated, if not impossible, given the need for pre-existing supporting proof of identity.

Countries where the CR and the CI are within the same government structure, such as in Chile (Ministry of Justice), Peru (Autonomous), Rwanda (Ministry of Local Development) or Namibia (Ministry of Home Affairs and Immigration), have much higher possibilities of achieving universal registration of their populations over time, both for civil registration and civil identification. Each of these countries have recognized the importance of the CR as the foundation, or basis, for the establishment of a person's identity and have provided the services and introduced attributes from birth (such as the use of a unique identity number) to facilitate the verification and authentication process for access to government services.

The potential for coherent and streamlined data management and reporting procedures, for instance of correction of errors, or changes in civil status, are higher when CR and CI are located within the same institution.

3.1.1 Population registers

It may be worth mentioning population registers, as there has been some focus on these lately. A population register is an augmented and amplified civil register, and the quality of the content and its usability depends on meticulous updating and management. It may be an interesting option for developing countries, especially if the CR will transition from paper to electronic databases for civil status records, and the country seeks to improve its vital statistics system at the same time.

Some countries, mainly in Northern Europe²¹, have population registers rather than civil registers. The term "population register" was defined in 1969 by UNSD ²², as "an individualized data system, that is, a mechanism of continuous recording, and/or of coordinated linkage, of selected information pertaining to

²¹ Austria, Denmark, Finland, the Netherlands, Norway, Sweden, Israel, and Japan.

²² https://unstats.un.org/unsd/demographic/sources/popreg/popregmethods.htm

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.[] The method and sources of updating should cover all changes so that the characteristics of individuals in the register remain current. Because of the nature of a population register, its organization, as well as its operation, should have a legal basis."

The information recorded in a population register is "date and place of birth, sex, date and place of death, date of arrival/departure, citizenship(s) and marital status. Depending on the possibility of proper linking with other registers, much additional information may be added to the single record, such as language(s), ethnicity, educational attainment, parity, activity status and occupation. In order to be useful, any additional information must be kept up to date. If complete, population registers can produce data on both internal and international migration through the recording of changes of residence as well as the recording of international arrivals and departures." Some Nordic countries also include information on health, educational attainment, employment and income within the population register.

One of the advantages of a current population register is that it eliminates the need for a census every ten years; the database will yield up-to-date demographic statistics at any time.

3.2 Registration, enrollment, and management of personal data

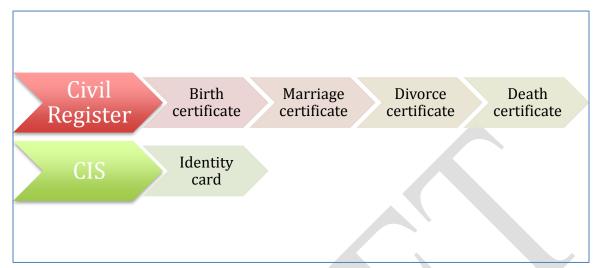
The CR and CIS collect different data and issue different identity credentials. The civil register records the biographic information of an individual and establishes their legal identity, whereas the civil identification agency adds attributes toward establishing a unique and secure identity for each individual. Such attributes can be any or all of the following: a unique identity number (UIN), a signature, biometrics (finger prints, iris scan), and a photo (digital or hardcopy).

To register a birth, most agencies require a notification of live birth from a certified health authority or, in its absence, a testimony from witnesses, and identity documents of the parents or the person responsible for reporting the birth to the CR.

For recognitions the CR record is amended, and a new birth certificate is issued. In the case of adoptions the original record is sealed and concealed and a new record is created with the names and personal data of the adoptive parents.

The content of the certificate is guaranteed by the CR and can be verified against the CR record. A certificate issued by the CR cannot uniquely authenticate the identity of the person that presents the certificate. The legal documents for identity verification and authentication based on the respective registers are illustrated in Figure 2 below.

Figure 2. Identity credential issued by CR and CIS



In most countries CI requires the presentation of one or more documents that will confirm the person's identity to a degree that is defined by law, decree, or tradition and is acceptable to the CI agency, as they will have to guarantee the veracity of the identity claim once an identity card has been issued.

The documents most commonly required are:

- The original birth certificate;
- A notarized copy of the birth certificate;
- A nationality certificate;
- Proof of address;
- Proof of profession or diploma;
- A marriage certificate (in some cases only for the woman);
- A divorce certificate for divorced people;
- A death certificate of the spouse for widows;
- Affidavits in lieu of missing documents.

Additionally some countries will allow the testimonies of two witnesses whose identities can be authenticated with their national identity credentials, and who are of at least the same age, or preferably older, to verify a person's identity for enrollment in the CIS.

If a person does not have the required documents, their enrollment in the CIR can be denied. The safest way to ensure the right person gets the correct identity card is to have universal birth registration and introduce a unique identity number (UIN) from birth, both on the birth certificate and in the person's record in the CR. At different stages in a person's life, it is crucial to have birth certificate, a marriage certificate, a divorce certificate, or a death certificate for a relative. These are necessary for obtaining a passport, taking out a loan, or obtain a deed for a property.

The use of biometrics can be a powerful tool for identification, verification and authentication. However, it is important that "end users and various stakeholders recognize and give more thought on the impacts

brought by biometric technologies on data privacy protection" (Woo, 2010). It is always important to ensure informed consent when biometrics is collected, and no more so than for from the most vulnerable groups, such as children, refugees and IDPs.

There is more to a person's identity than biometrics, and a differentiated approach to collecting and managing personal data for verification can not only be safer, but also make sense economically if a country is not ready to invest in readers for cards and/or biometrics. For instance, if the necessary infrastructure is not fully developed.

While collecting and using biometrics for children is a possibility, it requires technological upgrades that make it expensive and cumbersome to use in day to day operations. E.g. for an automated fingerprint identification systems (AFIS) to authenticate an infant's or a small child's finger print, the system will have to be re-calibrated.

Another question is the ethics of collecting biometrics from individuals who cannot give their informed consent.

3.3 Civil Identification built on Civil Registration

This interdependency between CR and CIR is defined as an identity management system (IDMS), as illustrated in Figure 2. Identity management is the combination of systems, rules, and procedures that are defined between an individual and organizations regarding the entitlement, use, and protection of personal information in order to authenticate individual identities and provide authorization and privileges within or across systems and enterprise boundaries (IDB, 2015). For an IDMS to be efficient and effective, the institutional and administrative link between CR and CI is critical. The systems and the rules are provided by the institutional arrangements, whereas the procedures are given by the administration and practices of the registers.

The establishment of identity by timely birth registration and collection and recording of additional attributes that will lead to a unique, secure and legal identity is the preferred IDM model. This flow from a lower level to a higher level of identity assurance strengthens the veracity of the system as well as the trustworthiness of credential that is issued.

The CR issues certificates attesting to an individual's civil status and familial links, and confirms legal identity, but not necessarily citizenship, except in countries that bestows citizenship to anyone born in the country ("jus soli").

The CIR issues identity cards, or credentials, that uniquely confirm a person's identity, usually founded on the CR record of a person. The credential, when presented by the holder, can be checked either by visual inspection, machine readability, or digitally, depending on the credential's sophistication and/or configuration, for access to benefits or services.

3.4 Leveraging Civil Identification systems to strengthen Civil Registration systems

In a perfect world with universal and timely birth registration, the processes outlined in Figure 1 would be automated and function seamlessly. In the case of interconnectivity and interoperability between CR and CIR, the functionality could be hindered by weak legal frameworks, paper-based legacy systems, outdated procedures, siloed institutions, the lack of a tradition of civil service (i.e., registrars are politically

appointed), insufficiently trained human resources, lack of administrative resources, or weak or outdated ICT resources, to mention a few. Furthermore, as with any composite system, success hinges on the weakest link(s), which is often the CR.

Civil registers have often been the weakest link in the IDMS because they are paper based and have not been able to keep a central repository of records up to date. Another challenge is that CR do not necessarily issue a birth certificate at the time of registration because the recording needs to be verified by an official that may have a backlog of records to sign or may not be present every day of the week. Or they may have run out of paper. Parents who live far away from the CR may be unable to return to pick up a copy of the birth certificate, or they may not understand the value of the document.

Confronted with dysfunctional registration systems, there are countries that have preferred to put in a CIS that issue identity cards based on biometrics, instead of solving the problem upstream by upgrading and modernizing the CR system.

Had the CR been upgraded, and efforts to achieve timely birth registration been commenced prior, or at minimum parallel, to putting a CIS system in place, the roll out of a CIR would have been firmly grounded on already existing identities that could easily have been verified for a smooth implementation.

In some cases the CIS is created to ensure voter registration as part of a democratization process. However, this does require proof of age, such as a copy of the individual's birth certificate and proof of nationality, and can exclude people who cannot show either. Furthermore, depending on enrollment age a CIS may exclude the 0-18 age group from having an identity credential. These individuals should at least have a birth certificate to prove their identity. Confronted with the challenges of requiring proof of age and nationality, countries have then worked backwards to transform the civil register from an analogue or paper-based system to a system of electronic records, digitally accessible that has been linked with the CIS.

Countries that did start out strengthening their CIS without regard to the CR have found that they did not get sufficiently trustworthy foundational information, such as birth date, place and familial connection without linking the application for an identity card to the CR, and began aligning the two registers by digitalizing the CR and linking it to the CIR. It is a slow and painstaking task that requires a scrupulous attention to detail.

Figure 3. Illustration of personal information recorded in the CR and CIS registers

Civil register

- last_name_CHAR
- first_name_CHAR
- uin INT
- birth_date_DATE
- gender_('M','F')
- place of-birth CHAR
- mother's name_CHAR
- father'name_CHAR
- registr date DATE
- date of marriage_DATE
- name of spouse_CHAR

Civil identification system

- last_name_CHAR
- first_name_CHAR
- uin_INT
- birth_date_DATE
- gender_('M','F')
- place_of_birth_CHAR
- mother's name_CHAR
- father's name_CHAR
- nationality CHAR
- breeder doc verified_('Y','N')
- address CHAR
- online authenticationCR_('Y','N')
- biometrics_('Y', 'N')
- enroll_date_DATE

If the CI records are in an electronic database and the quality of the data complies with relevant standards and requires utility, objectivity, and integrity, a mirror database for the CR can easily be achieved by transferring the minimum biographic information fields highlighted in bold in Figure 3 to the CR database.

Going forward, all births from a given date should be registered in the CR database, and an UIN issued for future linkage with the CIR. At the same time, processes should be in place to digitalize as paper records moving backwards from that same date.

4 OPPORTUNITIES AND CHALLENGES

Countries have long recognized these challenges and have sought to increase registration and improve the quality of the service to users. Rwanda and Peru are two interesting cases. Both countries reshaped their CR and CI systems after coming out of situations of internal conflicts, and both countries have achieved a level of registration and trust among the population that is admirable. Both countries have taken a long-term view, and built up their systems module-by-module. Laws have been changed or updated, administrative routines changed, customer service improved, audit trails incorporated, quality of paper and plastic credentials improved, to mention some.

An overview of success IDMS shows that it does no matter where the CR and CI agencies are located in the government structure, what matter is that there is an overall strategy for their integration and interoperability. (OSCE, 2017)

4.1 The politics of identity management

Confronted with dysfunctional registration systems, there are countries that have preferred to put in a CIS that issues identity cards, instead of trying to upgrade and modernize the CR system. Often the CIS is created to ensure voter registration as part of a democratization process. However, this does require proof of age, such as a copy of the individual's birth certificate and proof of nationality, and can exclude people who cannot show either. Furthermore, depending on the enrollment age a CIS may exclude the 0-18 age group. These individuals should at least have a birth certificate to prove their identity. Confronted with the challenges of requiring proof of age and nationality, countries have then worked backward to transform the civil register from an analogue or paper-based system to a system of electronic records, digitally accessible.

A number of countries issue national identity cards (NID) only to citizens. However, some countries issue NIDs to citizens and residents alike (Namibia, Ghana, UAE, Kuwait) noting citizenship – or residency - on the card.

For people as well as the public and private sectors to trust the veracity of the documents issued by both the CR and CI, the agencies need to be in a position where their management of personal data will not be compromised in any way. The agencies should also be able to ensure that the information stored will not be used for other purposes than for what is was intended.

With register and services going digital, there is a rising need for protection of personal data and cyber security. Countries, and in particular CR and CIS, need to be conscious of how personal information data are created, collected, processed, disseminated, or disposed of. The CR and the CIS must be able to guarantee the integrity of personal data and protect the information from unauthorized access or revision, to ensure that the information is not compromised through corruption or falsification.

To ensure the secure development, implementation and running of an IDMS four aspects should be considered. These are the strategic, operational, and financial as well as safety and security features of the system as illustrated in Figure 4 below.

Figure 4. Identity management system modules

Strategic Political Update legal framework Adjust Institutional and administrative framework Link CR and CI Safety and security Business continuity System integity and data protection Process integrity Cyber security When the process integrity Cyber security Operational Increase registration coverage Compliance with standards Efficient service delivery Financial Budgetary resources and planning Pricing of sevices and service delivery Transparent procurement

Integrated identity management systems have the potential to have significant impact on national development goals by creating synergies and allowing for timely and well organized interaction with entities that require verification or authentication if identities. One example is a "one-stop-shop" for accessing public services.

For effective IDMS there are multiple stakeholders that hold diverse powers/interests/roles. There are the formal (presidents, legislators, bureaucrats) and informal (private sector, media, civil society) institutions and they operate on different levels and with different objectives and at different speeds. The one thing they tend to have in common is to make the public sector more efficient, and recognize that the CIR is an important part of this schema. There is also a growing recognition that the lack of identity credentials causes exclusion and inequitable growth.

Identity management is so much more than technological solutions and mechanical registration. It goes to the heart of public sector and democratic governance, and is a prerequisite for the provision of – and access to - public services (Grindle, 2007 and Harbitz and Boekle, 2009).

Unfortunately the problem solving capacity expectations of IT solutions are often not realistic. It is glaringly obvious that many countries, especially developing nations, lack the resources to take full advantage of IT, partially because of the lack of relevant skill sets in the public sector. This can lead to potentially disastrous vendor lock ins. Some vendor dependency will always be the case, but it is preferable that local resources and institutional capacity is created and maintained.

The key enabler for a 21st century IDMS is the political decision to strengthen the role and capacity of both CR and CI systems through a national identity strategy that is inclusive and human-centered with the goal of reaching universal registration. The implementation of this strategy requires improvement of legal

frameworks and budgetary considerations at the macro level, and institutional and administrative upgrades at the operational levels, as outlined in Table 2 below.

Table 2. Political considerations for improved registration coverage

POLITICAL CONSIDERATIONS FOR IMPROVED REGISTRATION COVERAGE						
National policy considerations	Institutional policy considerations					
Legislative will	Training of staff					
Legislative focus on inclusion	Awareness raising					
Removal of outdate legal barriers to timely	More efficient registration processes and procedures					
registration						
Budgetary prioritization	Investment in ICT and technology					
Information campaigns	Special attention to vulnerable groups					
	Auditing, quality control, apply standards					

4.2 Operational considerations

The use of information and communication technologies (ICT) holds much promise both for CR and CIS. Many nations still have paper based CR records, and the transition from paper to digital systems is a challenge to many of these countries.

The electronic and digital environments options for identity management are evolving fast for both CR and CI and this produces challenges with respect to maintaining the data records available and searchable. The advantage of an electronic system is that an identity can be verified through the presentation of the identity credential, such as an identity card, in a very short time with a very high degree of confidence. This will allow the bearer of the identity credential to gain immediate access to benefits and services, rather than the old fashioned way of presenting a number of paper-based supporting documents.

The operational transition from a paper based CR to an electronic CR "should be based on robust framework that includes definitions, governance, organizational structure, as the roles and the responsibilities of those involved" (Gregson and Harbitz, eds. 2015). The framework consists of the procedures, processes and activities pertaining to the legal, institutional, administrative and ICT aspects for an electronically based RC.

With respect to countries that have been issuing paper based national identity cards, in many cases they continue to have paper-based records as supporting documentation. This record will normally contain a picture, signature and inked fingerprints. It is a costly and time-consuming process to digitalize and digitize these records so they become searchable in a database. The biographical information can be typed in (digitalized), and the record itself scanned (digitized). However, the challenge is the "readability" of inked fingerprints; the quality has to be very good in order for these to become suitable as attributes that can be used for verification or authentication of the identity of the person.

The main goal of a CIR is to issue an identity credential, or card, that will be trusted both by users and entities that need to verify the bearer's identity to access service and benefits. The process of verification or authentication of identities is to gain access to rights, benefits or civil duties for the holder, and should adhere to the 4Vs (four Vs: velocity, veracity, validity, value). Without the legal and institutional frameworks in place, ICT investments have in many cases not delivered the expected results.

IDM is a government (State) responsibility and so is the secure management of collected information and protection of the personal data. As countries move forward with upgrading systems and advancing egovernment agendas, it is important to build trust in the delivery of and access to electronic service delivery. A central element in electronically based CR and CIR systems is to have clear protocols for the collection, use, disclosure and retention of personal information.

5 USERS: INCLUSION AND PARTICIPATION

Many countries still refer only to citizens for issuance of birth certificates and national identity credentials. A birth certificate does not automatically bestow citizenship, but it does give the child a legal identity that will enable him or her to pursue citizenship.

At the end of 2017, there were 71.4 million people of concern to UNHCR worldwide. These are refugees, internally displaced and stateless individuals. More than half are women and children. ²³

With more than 68 million refugees and internally displaced persons, as well as more than 3 million considered stateless, in the world today due to conflict or climate change, it is necessary to take a fresh look at who the clients or users of public and private services are, and assess the minimum attributes necessary to give everyone access to the most basic services and benefits, such as healthcare, education, and opportunities to earn a living and thus break the cycle of poverty in which many of the undocumented are trapped.

Table 3. Population and birth registration data

	Afghanista	Banglades	Bhuta	India	Maldive	Nepal	Pakista	Sri
	n	h	n		S		n	Lanka
Population ²⁴ (million)	34,656	162,951	0,797	1,324,17 1	0,427	28,98 2	193,203	21,20 3
BR % 0-5 (2010- 1206) ²⁵	42	20	100	72	93	58	34	97
% with birth certificates	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Obligatory voting	No	No	No	No	No	No	No	No

Bhutan, Sri Lanka and the Maldives have birth registration data on par with developed nations. What is not known is if all children whose births have been registered in the CR have a birth certificate. A child without a birth certificate may not be given access to basic public services such as health and education. The older the child gets, the more difficult it may be to obtain a copy of a registered birth in that the

²³ UNHCR Global Report 2017.

²⁴ WBG. 2016

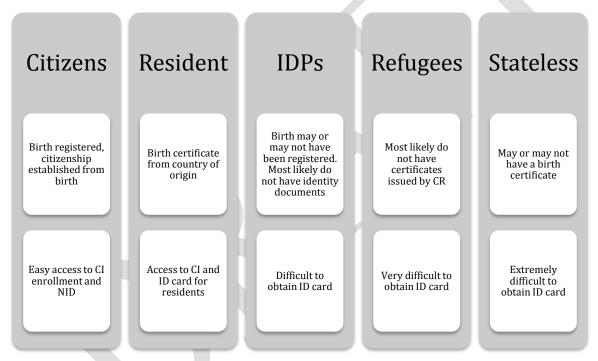
²⁵ UNICEF 2017 using DHS data and MICS

burden of proof to the parents to have the child registered may become insurmountable, such as the cost of legal procedures.

While the other countries in the region continue to improve their birth registration data, some have a way to go to achieve universal birth registration.

Within any given country there may be different population groups, including first and foremost citizens and residents but also refugees, internally displaces populations (IDPs), and stateless persons and other non-citizens. As human beings, all are entitled to be recognized according to international conventions and national legal frameworks. What types of identity credentials they are entitled to depends on national legislation. Namibia, for instance, a blue national identity card to citizens, and a pink and blue identity card to permanent residents in both cases from the age of 16 years²⁶.

Figure 5. Access to ID cards by Population Group



Countries that only issue ID cards to nationals will in most cases depend on certificates from either the CR or from the police for the applicant to prove her or his nationality. Figure 5 above illustrates the requirement to access national ID cards by population groups. Legal, or regular, residents have to provide supporting documentation from their country of nationality, such as a passport, to obtain a residency permit. The three groups that will have problems in obtaining an ID card are the IDPs, the refugees and stateless persons.

Countries will benefit from providing individuals with identity credentials. What kind of credential will depend on national legislation, bearing in mind that a person's legal identity does not necessarily equate citizenship. Not only does this give the state a better idea of who is in the territory, but also as a tool to

²⁶ http://www.gov.na/identity-documents

develop public policies and how public services should be provided. Just as important are the opportunities for participation in civic life, or economic alternatives for the individuals.

In his book "Development as Freedom", the Nobel Laureate Amartya Sen posits that instead of income poverty for development to be sustainable there should be a focus "capability deprivation". Lack of identity credentials is certainly deprives a person of the capacity to access benefits, services and economic opportunities.

6 FINAL REFLECTIONS

More and more countries are recognizing that completeness of civil registration and civil identification is a condition for efficient and human-centered governance as well as for sustainable development. Universal registration is as important for service delivery and security as for public sector policies, planning and investment.

The Asia and Pacific Ministerial Declaration to "get everyone in the picture" affirms the importance of the CR and the documents they issue as a key for proving legal identity, good governance, and access to services and benefits. The declaration also recognizes that "the majority of the countries in the region do not possess universal and responsive civil registration," and set three important goals to achieve by 2024:

- 1. Universal civil registration of births, deaths, and other vital events;
- 2. All individuals provided with legal documentation of civil registration of births, deaths, and other vital events, as necessary to claim identity, civil status, and ensuing rights.
- 3. Accurate, complete, and timely vital statistics, based on registration records, produced and disseminated.

The declaration further lays out six principles for its implementation. The first of these principles is that each country takes the lead in improving CR and their vital statistics.

As countries initiate projects and programs to improve the functionality of the registries and facilitate registration, the practical solutions have to be tailored to each country's particular context and situation.

The premise for any institutional reform is political leadership and initiative.

Civil registers are supposed to include the entire population, regardless of status, and must be permanent, continuous, and universal. Civil registers have a strong legal basis, are often established through the constitution, and have clearly defined functions, institutional arrangements, and responsibilities. A civil identification register would be a stronger system when it is built on the CR, and both registers form integral parts of an identity management system.

The best country practices show that an identity management system (IDMS) is required to ensure universal registration. An IDMS is "the technical and organizational infrastructure used to define design and administer the attributes of an identity" (IDB, 2015). The attributes are the fields in the person's record.

The two models for setting up a harmonized IDMS are (i) the "traditional" flow from civil registration to civil identification and the issuance of a secure and trusted identity credential; or (ii) the "back tracker" when the civil identification register is used to re-construct a civil register through the creation of a mirror database with biographic information.

Whichever path a country follows to put an IDMS in place there are a few basic premises that should be considered:

At the policy level

- Without national a national IDM strategy with clearly defined targets, it will be difficult to achieve
 any of the three goals outlines in the Ministerial Declaration of 2015. At the operational level, an
 implementable roadmap is needed that takes process and common technical standards between
 institutions and agencies into consideration.
- Any adjustment to existing CR and CI models must be tailored to respond to national circumstances. Countries that have succeeded in upgrading, modernizing and harmonizing their CRs and CIRs have included institution building as a part of their policies.
- There are multiple stakeholders that hold diverse powers/interests/roles, and have different time horizon for upgrades. There are the formal (presidents, legislators, bureaucrats) and informal (private sector, media, civil society) institutions, and all need to be considered as part of modernization processes.
- The pace, depth and scale of change in the area of technologies have had profound impact across the public sector. IT is not necessarily the panacea but is a tool that can make processes more efficient and user friendly, and the impact can be even more positive if the legal and institutional foundations are in place, or at minimum there are concrete plans for their strengthening.
- When defining a roadmap for improvements to CR and CI and their linkage, the first activity must be to define the desired end result and then describe each activity that is required to achieve it, with quantifiable indicators to measure progress. Just as important are managing risks associated with institutional changes. A roadmap is not a linear series of activities, but must be conceptualized and carried out as a series of modular, as well as parallel endeavors.

At the operational level

- The main goal of a CIR is to issue an identity credential, or card, that will be trusted both by users and entities that need to verify the bearer's identity to access service and benefits.
- The operational efficiency of IDMS needs to be enhanced to respond to increasing need for verifications and authentication of identities with clear and measurable plans of action, with the necessary operating procedures and lines of responsibility in place.
- The desired modality is one record, or one identity, per person that follows an individual from cradle to grave, confirming that person's identity and civil and vital status, and the best option when this starts with birth registration.
- An integrated and secure IDMS must be designed to protect personal data from misuse and theft. This will increase both trust in the system and the credential and lead to increased enrollment.
- Countries that have paper-based CRs could take advantage of CIR to transform analogue registers
 to electronic registers. However, this kind of "back tracking" requires changes to legal and
 regulatory frameworks, institutional arrangements and investments in technology.

ANNEX 1

DEFINITIONS

To be completed in the final paper

ANNEX 2

ACRONYMS

CI Civil identification

CIR Civil identification register

CIS Civil identification system

CR Civil register

CRS Civil registration system

IDM Identity management

IDMS Identity management system

ANNEX 3

BIBLIOGRAPHY/CONSULTED DOCUMENTS & WEBSITES

Asian Development Bank. 2007. Legal Identity for inclusive development. Asian Development Bank, Manila.

Birth Registration in Bangladesh. 2010. https://www.unicef.org/bangladesh/Birth_Registration(1).pdf
Birth Registration – the picture in India.

http://unicef.in/Story/1133/Birth-Registration-the-picture-in-India

World Bank Group. 2017. CRVS eLearning course https://olc.worldbank.org/content/civil-registration-and-vital-statistics-systems-basic-level-self-paced-format

Grindle, Merilee S. 2007. Good enough governance revisited. In: Development Policy Review 25(5): 553-574.

Harbitz, Mia and Tamargo, Maria del Carmen. 2009. The Significance Of Legal Identity In Situations Of Poverty And Social Exclusion. Working paper. Inter-American Development Bank, Washington, D.C.

Harbitz, Mia and Boekle-Guiffrida, Bettina. 2009. Democratic Governance, Citizenship, and Legal Identity. Working Paper. Inter-American Development Bank, Washington, D.C.

ID4D Global dataset. Version2.2015. http://id4d.worldbank.org/global-dataset

Population database: https://data.worldbank.org/indicator/SP.POP.TOTL

Inter-American Development Bank.2015. Dictionary for Civil Registration and Identification. Inter-American Development Bank. Washington D.C. https://publications.iadb.org/handle/11319/3679

Inter-American Development Bank and UNICEF. 2015. Toward Universal Birth Registration. A systemic approach to the application of ICT. Washington D.C. https://publications.iadb.org/handle/11319/7165

Namibia National Identity card: http://www.gov.na/identity-documents

Sen, Amartya. 1999. Development as Freedom. New York: Oxford University Press. ISBN 9780198297581.

Sustainable Development Goals http://www.undp.org/content/undp/en/home/sustainable-development-goals.html

UNHCR. Global Report 2017.

http://reporting.unhcr.org/sites/default/files/gr2017/pdf/GR2017 English Full lowres.pdf

UN Department of Economic and Social Affairs. Statistical Division. Principles and Recommendations for Vital Statistics Systems, Revision 3. 2014. (Paras 454, 468). New York.

Woo, Roderick B. 2010. Challenges posed by Biometric Technology on Data Privacy Protection and the Way Forward. ICEB 2010, pp 1-6, 2010. Springer-Verlag. Berlin