



Office for Democratic Institutions and Human Rights

KYRGYZ REPUBLIC

Assessment on the Prospects for the Establishment of a Population Register



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KYRGYZ REPUBLIC

ASSESSMENT ON THE PROSPECTS FOR ESTABLISHING OF POPULATION REGISTER

1 INTRODUCTION

Following the request of 23 November 2011 from the State Registration Service of the Kyrgyz Republic (SRS) to provide assistance in the establishment of a state-wide population register, the OSCE Office for Democratic Institutions and Human Rights (OSCE ODIHR) visited the Kyrgyz Republic from 6 to 7 December 2011. The OSCE ODIHR expert team comprised Mr. Zoran Dokovic, OSCE ODIHR Migration/Freedom of Movement Adviser, and Mr. Frank Nan, ODIHR's external population registration expert. In a meeting with SRS officials, an agreement was reached on a joint work plan for an assessment of the requirements for the establishment of a computerized population registration system as part of ongoing population registration reforms in the Kyrgyz Republic.

In line with the agreed work plan, an OSCE ODIHR external expert visited Bishkek from 12 to 17 March 2012 and from 9 to 14 April March 2012, to conduct an assessment of the population registration framework, including a range of meetings with stakeholders in the registration process.

During the assessment, the SRS conveyed to the ODIHR expert their commitment to undertake key measures to implement a state-wide population register. In light of these efforts, the SRS informed the ODIHR expert that they intended to include the establishment of a fully computerized population register as part of a forthcoming tender for the production of biometric passports. The required equipment on the central and local levels for the population registration system would become an integral part of bidders' proposals.

The SRS informed the expert that, as part of a forthcoming tender, bidders will be invited to propose an appropriate solution for the implementation of a computerized population register, and the SRS will decide - upon review of the bids - which proposal best suits the circumstances of the Kyrgyz Republic.¹

For the purpose of the assessment, the SRS provided the expert with relevant legislation that governs the registration process and written background information on existing operational arrangements to conduct registration at the local level and process information at the central level. As part of the assessment, the expert looked into the administrative set-up of registration services, the population registration legal framework, available resources for electronic information processing, the enforcement of legal obligations, and the overall functioning of the population registration process. The information provided by the SRS in these areas determined the identification of existing gaps and the assessment of what measures are still required.

¹ Given the confidentiality of the process, the expert was not given insight into the content of the documentation for the tender

This report focuses on the current situation and the improvements necessary to create a population registration system in the Kyrgyz Republic, along with recommendations for the SRS to assist it in its implementation. The report elaborates, in particular:

- objectives and principles that need to be taken into account for the implementation of a functioning computerized population registration system;
- the SRS organizational setup, legal framework, information management and operations;
- implementation requirements for the functioning of a computerized population registration system;
- recommendations to the Kyrgyz Republic government and the SRS on requirements for consideration in deciding on received tender proposals for a biometric passport/population registration system;

The OSCE ODIHR is grateful to the SRS for the invitation and the opportunity to contribute to this assessment. It is also thankful to the SRS for its support in organizing the expert's visit, and making of its staff available for discussions. Finally, the OSCE ODIHR would like to thank all other Kyrgyz institutions and individuals who were available to provide their insights and information for the assessment.

2 PRINCIPLES FOR POPULATION REGISTRATION

A Population Register is a system that stores records of personal information of all citizens and non-citizens residing on the territory of a state that meet the requirement for registration as set out in the relevant legal framework. The data stored in the Population Register is registered in a unique, uniform and transparent way, based on documentary evidence certifying vital life events. Registration is unique and uniform in determining *what kind* of information is stored and *how* information is stored in the population register, and transparent in a manner that ensures citizens' trust in the state's handling of their personal data. Multiple uses of stored personal data by other institutions ensure that all public administration institutions perform their tasks using the same information coming from the population register.

A population register provides benefits to the entire state public administration by allowing it access to legally valid personal information required to improve services and provide quality products to citizens in all policy areas, i.e., health, labour, justice, education, welfare, property ownership, driver licenses and emergency services. In return, citizens are provided with quicker and better-quality services.

In order to establish a population register that delivers these benefits, it is important to introduce the following objectives and principles, which are considered common practice in most countries with a functioning electronic population registration system:

Two main objectives should be achieved to run an efficient population register. First, it requires that for each individual residing on the territory there should be only one file in the register containing his/her personal information: "***one person-one file.***"

Secondly, for the purpose of providing access to the data for individuals and other institutions, it is necessary to create conditions for the subsequent multiple use of registered data by electronic means: “*register once - multiple use of information*”.

Establishing the first objective for running an efficient population register should ensure that a person is only registered once in the register, and any duplication of data should be prevented. Once the “*one person, one file*” objective is ensured, only then does the second objective, “*register once - multiple use of information*”, become important. The use of personal information stored in a population register by public institutions (as defined by law) should ensure optimal use of personal data within the public administration and within the framework of data protection and other legal safeguards. The first objective ensures data quality; the second objective ensures the proper use of data by all public institutions, thus leading to an improvement in state services.

A centralized population register requires the adherence to, among others, the following main principles:

- *Based on a chosen administrative division (and territorial bodies), personal information is collected, verified and registered at the level of the local authorities*

Registered information is communicated electronically to and maintained at the central level. The local level is responsible and accountable for the collection, verification and registration of citizens. The maintenance of registered data, or the responsibility and accountability for the data quality of the population registration system, is done at the central level.

- *Registration and maintenance of data is based on a sound legal framework.*

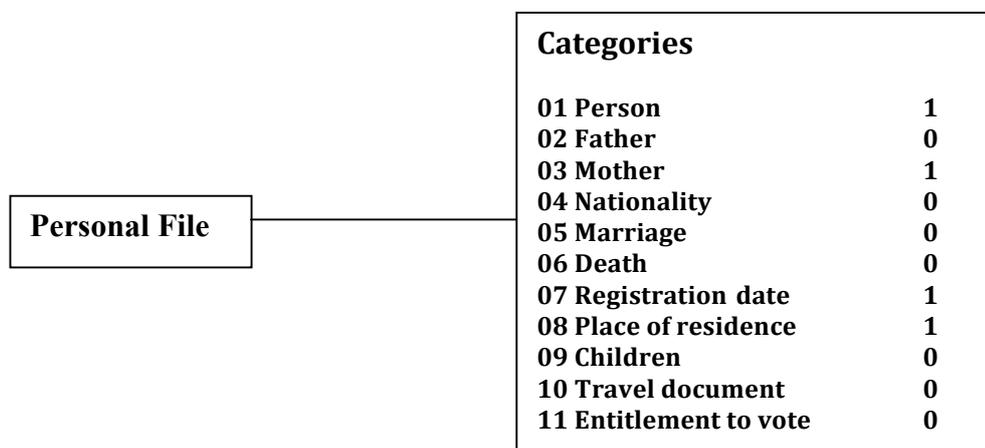
A population registration system must be based on well developed laws, by-laws, instructions and procedures.

- *Uniform registration should provide that registration is performed in the same way by every local office, ideally based on a computerized system.*

Uniformity in collecting, verifying and registering citizens’ civil status data at the local level is essential to ensuring data accuracy. This means that clear procedures for the registration of place of residence and civil status events should be in place. Relevant local authorities need to be trained on the registration procedures and to apply them in a uniform manner. The uniformity of the population registration data collection, updating, verification and registration procedures should be validated by a software platform that runs the Population Register. Uniformity will be controlled by means of system logfiles and audit trails, based on performance indicators presented through regular information updates to the management of the Population Register.

- *The registration of a person is comprised of a comprehensive set of data.*

In order to create conditions for the registration of vital life events in a person's life cycle, every person is represented by a personal file in the population register. Each file is composed of relevant data divided into a number of categories. The number of categories depends on the choice made as to which type of information will be registered. A category can contain only current data or current and historical data. The following figure illustrates a possible layout for a personal file.



Some categories should be mandatory components of personal file. The categories with an adjacent “1” in the layout above are considered to be mandatory. Population register includes a personal file of the person (*category 01*) who fulfils the condition for registration. The inclusion date of a personal file in population registration is referred to as registration date (*category 07*). One of the conditions attached to registration is that the person should be associated with an address of residence. While persons have two parents, inclusion of the father (*category 02*) can be optional but the mother (*category 03*) is mandatory. This is also valid for persons who have one parent in a legal

Some categories of personal information in the population register should be mandatory components of a personal file. The categories with an adjacent ‘1’ in the figure above are considered mandatory. The population register includes a personal file of the person (category 01), which fulfils the criteria for registration. The date of inclusion of the information in a personal file is referred to as the Registration date (category 07). For the information in the personal file to be complete, the file should store the address where a person resides. Generally, a person will have information on both parents within his/her registration data. However the inclusion of the father (category 02) can be optional, while that of the mother (category 03) is mandatory, which is also valid for those persons who have one legal guardian. The other categories are not mandatory. For instance, personal files of individuals without children do not include category 09 (*children*). Some categories of vital life events data may have more than one entry. For instance a person may have more than one child, may remarry more than once, and may obtain more than one passport during his/her lifetime.

- *Data stored in the population register consists of complete, correct and up-to-date data, as well as historical data (historical data is created by the system automatically after every update of personal data).*

The data in the Population Register should be complete (all citizens and resident non-citizens should be registered), correct (registered data without misspellings, etc.) and up-to-date (reflecting the persons current civil status and residence).

- *The registration of a person should provide the person with a legal identity.*

Complete, correct and up-to-date data in the Population Register should contain legally valid data for the citizen establishing their legal identity before the state. Therefore, registered personal data need to accurately reflect a person's unique civil status and the person's place of residence (address).

- *Upon birth-registration by local authorities, the Personal Identification Number (PIN) is automatically issued by the population registration system.*

The citizen's PIN represents the unique personal identifier, which is required to make an unambiguous identification of a person in the population register when providing services; Birth registration should automatically lead to the issuance of a PIN by the population registration system according to the same algorithm now in use by the Kyrgyz Social Fund.

- *Registration authorities should be trained regularly on the legal framework and the operation of the computerized population-registration system.*

To maintain the uniformity of registration data, as well as data accuracy, it is essential that registration authorities are regularly trained on population-registration legislation, instructions and procedures, as well as on the computerized platform that is running the population register.

- *Data accuracy should be safeguarded by procedures and enforced through a cycle of systematic and continuous audits.*

To further ensure data accuracy, legal obligations and registration processes at the local level, a system for regular auditing of local offices should be put in place.

- *Other public institutions are granted access to personal information in the population register, provided that those institutions are authorized to do so by law.*

If the data accuracy of a population register is sufficiently ensured through staff training, uniform registration and audited processes, then the civil status data can be distributed to authorized third parties for the purpose of providing services.

- *Products (such as passports, ID-cards, certificates, voter lists and statistics) will only be produced on the basis of information stored in the population register.*

Services provided by the state that require the use of personal data for the production of passports, ID-cards, certificates, voter lists, and statistics should make mandatory use of personal identity data stored only in the Population Register.

Next to the objectives and principles of population registration, proper planning needs to precede the implementation of the register. In that context, it is essential that the following are clearly set out:

- A vision on the future of Population Registration (What is our goal?)
- An implementation plan (What is the roadmap towards the goal?)
- Clear roles and responsibilities on implementation (Who will be involved?)
- Understanding the power of information, i.e., how to achieve and maintain data quality, how to establish data protection and how to raise awareness among the general public. (How to manage and maintain)

3 RESPONSIBILITIES AND OPERATIONAL CAPACITIES OF THE STATE REGISTRATION SERVICE

The State Registration Service was established by a Governmental Decree² of 17 November 2009, which merged authorities previously delegated to various ministries under the SRS. These include the Passport Desk at the MoI and its district divisions, as well as the Department for Registration of Civil Status Acts of the Ministry of Justice, the State Agency for Information Resources and Technologies and the State Agency for Registration of Immovable Properties.

The SRS is responsible for fulfilling the following registration tasks:

- Registration of the population of the Kyrgyz Republic
- Registration of civil status acts
- Registration of real estate rights and maintenance of the Land Cadastre
- Registration of vehicles, licensed drivers and power of attorneys issued that provide the right to drive and dispose of the vehicle
- Keeping the State Archive

The SRS has the following goals to be achieved related to population registration:

- Provision of quality services to the population on population registration, civil status registration, vehicle registration, driver license registration, immovable property and cadastre registration
- Establishing a functioning Population Registration system
- Establishing of ‘single window’ service points

² Decree of the Government of the Kyrgyz Republic No 708 of 17 Nov 2009 On the Approval of the Regulation of the State Registration Service under the Government of the Kyrgyz Republic

- Establishing data-sharing through distribution of personal data to public (private) institutions in accordance with the law.

3.1. Administration

The SRS structure contains the following departments:

<u>Department for Civil Status Act Registration-DCSAR</u>	- responsible for civil status act registration in all 60 local offices and 519 Local Government Bodies
<u>Department for Registration of Population</u>	- responsible the issuance of passports and place of residence registration
<u>Department for Registration of Real Estate and Cadastre</u>	- responsible for the registration of immovable property, land management and the address register
<u>Department for Driver Licenses and Vehicle Registration</u>	- responsible for the application and issuance of driver licenses and vehicle registration
<u>Department for Informational Resources and Technology</u>	- responsible the maintaining of IT systems in use by the SRS.
<u>InfoCom</u>	State Enterprise for IT that supports the SRS on IT management and system development, on the instructions of the SRS management.

All SRS departments require access to personal data for the registration of civil acts, application for passports, application for driver licenses, vehicle ownership and property ownership, or in maintaining the registration system. It is clear that, although the SRS was established more than 2.5 years ago, there is a need to establish the SRS as a coherent agency that provides services and products. Yet, at present, the SRS appears to operate as a group of fairly independent departments with a history of operating as independent institutions or as part of a ministry before the SRS was created.

This is reflected, partly, in significant overhead and financial inefficiency at the SRS which is represented at the local level by 233 local offices with their accompanied staff, where, in many local communities, the SRS maintains separate offices for

different types of services. This has consequences for future procurement requirements in terms of providing for a data transfer network, technical equipment and office premises maintenance. The SRS intends to establish “one-window-shops”, a goal which is a valid choice that should lead to cuts in the number of registration offices (buildings), by uniting civil status acts and residency registration, driver license and vehicle registration in one building. The Registration of Real Estate represents a different service, as it primarily deals with immovable property and cadastre/land management issues. This service is almost entirely financially supported by the World Bank.

In addition, both the Department for Driver Licenses/Vehicle Registration and the Department for Registration of Real Estate are seeking the status of state enterprises. This could lead to an unusual construction, where two departments within the SRS are, in fact, independent structures with their own financial management and, thus, not contributing to the overall functioning and financial management of the SRS. From the organizational point of view, to function properly, the SRS should be in a position to exercise sufficient managerial authority over all of its organizational units.

Organizational structure of the SRS

Department	Offices	Service	Products	System
<u>Department for Civil Status Act Registration</u>	- 60 CSAR Local Offices - 37 Hospitals - 519 Local Government Bodies	- Population Registration	- Certificates - Archives	- De-centralized - Manual System
<u>Department for Registration of Population</u>	- 63 Application Offices - 36 Application Points	- Production of ID Documents - Residence Registration.	- ID Documents - Residence Permits	- Local Manual - Central System
<u>Department for Registration of Real Estate and Cadastre</u>	- 49 Registration Offices	- Property Registration - Address Registration - Land Management	- Ownership Documents - Addresses	- Central system - (Support by the World Bank)
<u>Department for Driver Licenses and Vehicle Registration</u>	- 25 Registration Offices	- Driver Licenses - Vehicle Registration	- Driver Licenses - Vehicle Documents	- Local Manual - Central System - (outdated)
<u>Department for Informational Resources and Technology</u>	- N/A	- Systems Maintenance - Application Development	- Functioning Systems - Applications	- N/A

3.2. Operational structure

In the absence of a computerized central database, population registration, at the moment, is entirely paper-based and manually managed. Currently, civil status events, as well as residency, are only recorded in registrar books. Sharing of registered information within the public administration system is not as fast as it would be if information were shared electronically. This, in turn, has consequences for the quality of services state institutions provide to citizens. For instance, to obtain travel documents, a person needs to visit several local offices, and often travel significant distances, in order to obtain certificates of proof of identity and registered residency. These documents are then submitted together with an application for travel documents. In a computerized environment, when a person applies for a travel document, personal information can be obtained electronically from the population register, regardless of the location where this information was originally registered.

Civil Status Registration

The Department of Civil Status Act Registration (DCSAR) has 60 local offices (CSARs) that handle registration of seven civil status events (birth, marriage, divorce, adoption, established paternity, name change and death). Within these 60 offices there are 37 offices that have their “branch” in a hospital for birth registration only. This is considered a service for citizens who do not have to go to the CSAR office but can get the birth certificate handed out by an employee of the CSAR. Furthermore, there are 519 local government bodies that register 4 types of civil status events: birth, marriage, established paternity and death.

The assessment of the civil status registration process highlights several aspects of the process that could benefit from further improvement:

- The registration of civil status acts is currently a complex and time-consuming process that requires the completion of several forms in different registration books. The introduction of a computerized system, where data is registered locally and maintained at the central level, would create the basis to provide registration services that are quicker for citizens and less time-consuming for registration staff. In addition, the management of large volumes of data at the central level is much easier to achieve with a computerized registration system. At the moment, this is not the case, which makes controlling the accuracy of civil status registration difficult.
- The enforcement of the Law of Registration of Civil Acts is the key to establishing uniformity in registration. Although procedures appear to be well known and followed by the offices, the large number of local offices makes it almost impossible for the central level to enforce uniformity in registration, as local offices make their own decisions. A systemized way of registration obtained through a computerized system would make uniformity easier to enforce by means of log files and audit trails.
- The registration of citizens residing abroad is a problem that requires further attention. At present, Kyrgyz authorities do not have precise figures as to how many of their citizens live abroad. This requires a clear registration

mechanism involving the processes of civil act registration, residence registration, passport application and the involvement of Embassies/Consulates. To address this situation consideration should be given to discontinuing the practice of issuing passports to citizens registered in the Kyrgyz Republic but living abroad. Issuing passports abroad should only be done for persons actually de-registered (made inactive) from the population register in the Kyrgyz Republic. In all other cases, passport applications should be submitted to the proper authority in the Kyrgyz Republic. In case of emergencies (stolen/lost passports), an emergency passport could be issued, with a validity of travel for one year.

- The SRS is considering merging CSAR offices with the Passport/ID Application offices. Although this approach may produce many benefits, such as lower operational costs and easier access to registration services by citizens, caution is nevertheless required, since such a merger may lead to a situation where the main function of the offices becomes the processing of passport/ID requests rather than of civil status registration. Therefore, a civil status registration system could only become a sub-system of the Passport/ID application processing system. It should be emphasized, however, that the Passport/ID production should not be mixed with population registration. The first is a static registration of personal data that was valid at the time when the passport/ID application was submitted, while the latter is a dynamic and permanent registration of changes in civil status events. These two different types of registration systems should not be mixed.

Residency Registration

A citizen is obliged by law to register a number of civil status events. In the same way, a citizen is obliged to register his or her change of residence within the timeframe specified by the Law on Internal Migration. For a citizen, the registration process is most convenient if there is only one location where the registration of all events related to that person can be completed. As civil status offices are responsible for registration of all vital life events, consideration should be given to assigning residency registration tasks to the civil status office.

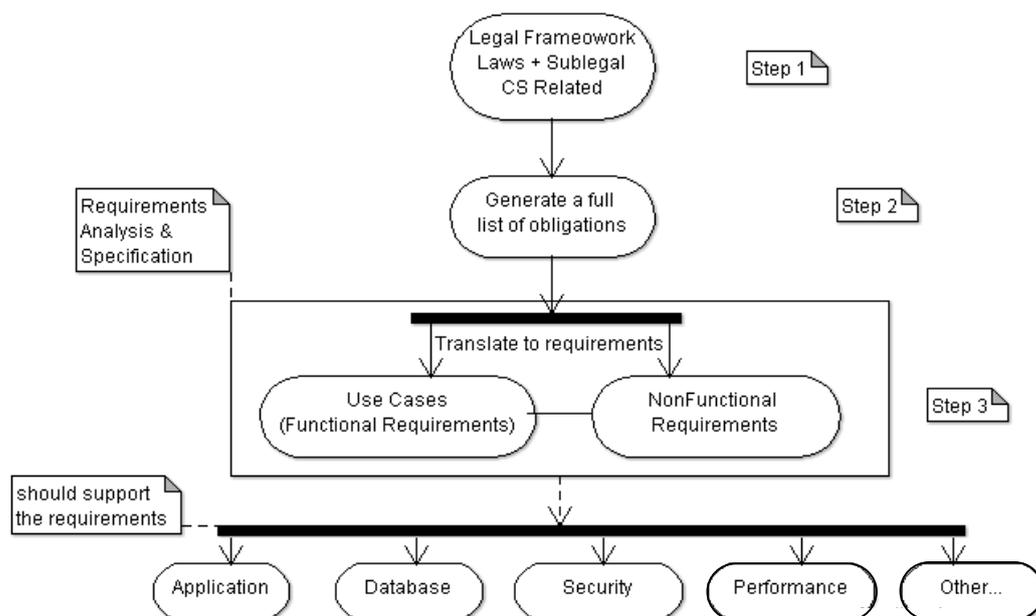
Merging of residency and civil status registration services at the local level could be justified further by the fact that, in relation to document security citizen registration and registration of citizens residing abroad, registration place of residence is without a doubt part of civil status registration which identifies not only who the person is, but also where the person is. Registered information provides the citizen with a legal identity, including proof of residence that is required by the state when applying for documents and obtaining other public services (health care, education, etc.). As a result, for instance, the application for a passport could be done by using only data from the population register.

4 IMPLEMENTATION REQUIREMENTS

4.1. Legal Framework

The legal framework defines the relevance of population registration in the context of other tasks that the SRS is responsible for. The population register will not only store information on citizens but will also provide access to registered information to authorized users to enable them to perform their tasks. Therefore, while the SRS determines the manner in which information will be processed in the system, procedures for data processing should be based on provisions elaborated in the legal framework.

The legal framework has a decisive impact on determining the optimal model for operating a population register. In the context of making the selection of the best bidding offer as part of the forthcoming tender, it needs to be taken into account that the legal framework is not fully developed, leading to the problem that the SRS may not be able to define the system requirements and “use cases”³ to distinguish between technical proposals from bidders (see graph below).



The graph shows that when legal obligations are identified (step 1), this will lead to the definition of a list of obligations the system needs to perform accordingly (step 2). This required system performance means that a number of system requirements need to be described (step 3). These descriptions are called ‘use cases’ and provide a detailed description of requirements for all actions the system should be able to perform.

³ For instance, in order to prevent double registration of persons or update the data of the correct person, the first action for registration or updating will be a “person search” to identify a person’s file in the register. The “use case” will describe how and in which variations a “person search” can be made: only name, name + date of birth (including only year available/only year-month available), etc. These functional requirements need to be tested once the system is delivered.

The current legal framework needs to be amended further and new regulations need to be put in place. The Law on Internal Migration from 2002, amended in 2011, provides the legal basis for the establishment of the state population register. However, to date the register has not been established. The legal obligations in the Law on Civil Status regulate a manual and paper based registration system. The Law also does not reflect the fact that civil status registration tasks have been transferred from the Ministry of Justice to the SRS. There is a need to harmonize existing population-registration legislation with other relevant national legislation to prevent contradicting provisions, which, in effect, may endanger services and present an unnecessary burden to citizens.

Taking into account the ongoing process initiated by the SRS to draft the legal framework to operate the population register, it is important that relevant provisions of the legislation are known to the SRS prior to completing the bidding process for the production of new biometric passports. In the situation where the SRS intends to select a technical model for the implementation of the population register on the basis of a proposal from the winning bid, the SRS is risking that it may not be able to meet legal obligations, because these will not fit the technical system accepted in the winning bid.

The future electronic collection, storage and use of personal (population) data in a population register that provides services and has the purpose of distributing data to public institutions will require the adoption of a regulatory framework for the functioning of the population register. The law should elaborate provisions on:

- the way in which the database is maintained, by describing the main duties of the local and central registration authorities involved in this task
- the rules upon registering personal data in the database
- the duties and rights of the citizen when registering
- the way in which personal data can be accessed
- the rights of citizen regarding their access to their personal data
- the control mechanisms of the population registration processes (for instance, by means of auditing)
- the control of the network
- the way in which the integrity of the population register database is maintained.

The adoption of the regulatory framework will have consequences for corresponding legislation, such as legislation on ID documents and ID numbers. Legislation on ID documents will most probably be affected by the fact that further regulation is needed for how applications for ID-documents will take place with an electronic population registration database in place. Also, the legislation on PIN-numbers is affected in that it has to be described how, when and where ID-numbers will be issued with the use of the electronic population database. Transferring the task of PIN number issuance from the Social Fund to the SRS will affect Social Fund legislation. The Law on Internal Migration should no longer make references to the population registration-system, as the newly developed regulatory framework would cover all the aspects of population registration.

4.2. Administration

Further to registering and maintaining civil status and residency data, the SRS has the objective to improve the services it delivers to citizens. From the SRS organization overview it is clear that the SRS provides a number of services and products. The SRS provides at least four services that are important to citizens: population registration, ID documents production/issuance, property/owner registration and driver license production/issuance. In all cases, personal data is required to provide these services and products.

Every SRS service and product is the result of a working process. Whether these relate to birth registration, application for a passport, registration of a vehicle or any other task of the SRS, all these processes have a starting point and a closing point within the SRS system. These processes (from start to end) are the actual service the SRS provides. At the closing point of each process the service is completed and the product is delivered to the citizen (birth certificate, passport, vehicle registration document, etc.). The SRS, therefore, manages processes rather than information systems. This means that the SRS should also shape its organization on the basis of process management. All activities related to delivering a particular product should be described as processes that clarify who is responsible for which part of the process. With the introduction of process management, the SRS will shape daily management to control processes, task assignments and responsibilities within the SRS.

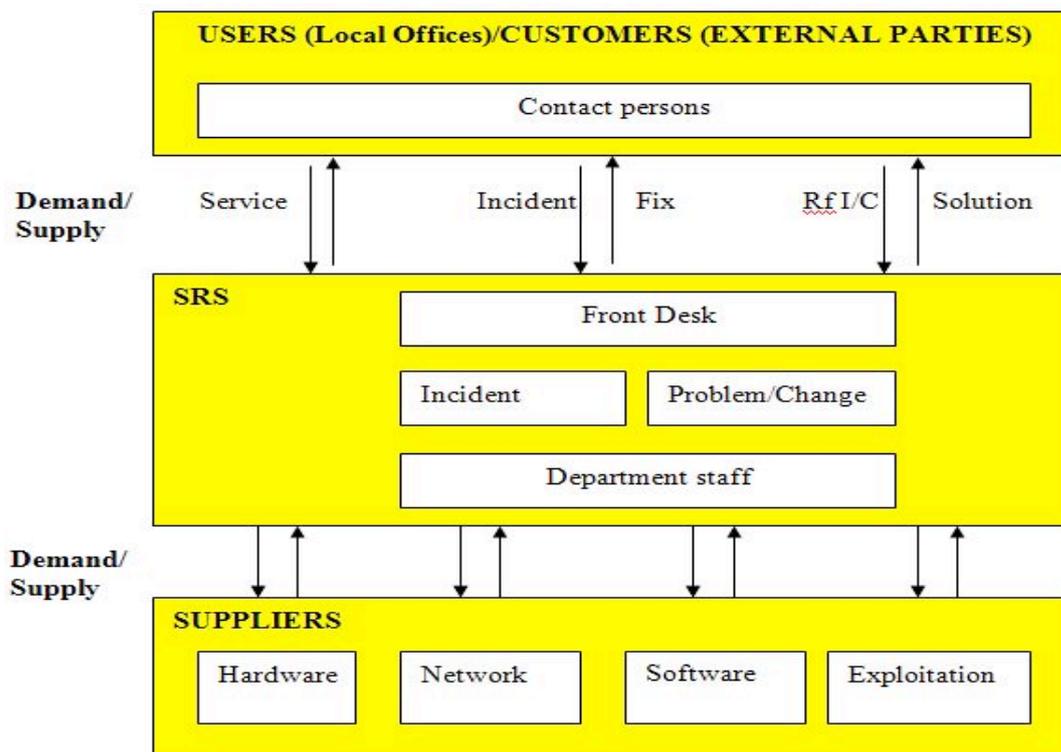
The daily management of processes, task assignments and responsibilities serves the following purposes:

1. To standardize internal processes within the SRS as a pre-condition to report internal assignments in an accountable way and enable decision making based on documented facts.
2. To facilitate interaction with external parties (users, external service providers, external data users) through processes that clarify tasks and responsibilities internally and externally to safeguard the required service level.

The introduction of process management should take into account the principle of “supply and demand”, with measurable indicators such as costs, service availability and quality of service in support of the process.

In the case of the SRS, we can speak of a “supply and demand” principle, as the SRS has (potential) users (CSARs, ID-document applicants, Driver License applicants, Property Owners) and, in future, external data users (public/private organizations) that will “demand” services of the SRS. This makes the SRS the “supplier” of services. At the same time, the SRS has contracted services from other companies (software/hardware/network/exploitation) that make the SRS “demand” these services from companies, the so-called “suppliers”.

Incidents and problems can be solved by the SRS departments itself, or might require the SRS to seek assistance/help from their service suppliers. The following figure shows both relations within the “supply and demand” model



*RfI/C: Request for Information or Change

The SRS services are, or will become, indispensable in the day-to-day work of the users/external data users. The SRS strategy should aim to provide these services cost effectively. Annual budget preparations should take into account reports of service quality and service availability. A budget cycle involves the annual prediction of costs (services and expected changes) and control of expenditure (resources required). Reports on service availability and service quality can support the process of budgeting. The “supply and demand” model provides that, for every information system controlled by the SRS, the management of individual information systems is standardized and identical.

4.3. Information Management

Centralized storage of data

The Population Registration system should only have a central storage system to which local offices log in via web-services. The local offices will obtain access to the main system via the Internet (web-services) and will be able to access all information. However, they can only update information concerning their own area of responsibility. Other information is available only for viewing.

Web-services provide the advantage of eliminating the need to control local databases, as only one database stores the entire data. In addition, software updates only need to be installed at the central level and become immediately available to all

local offices. Maintenance and control of the system will be done at the central level only.

Control mechanisms can be put in place more easily by providing maintenance when the data is stored centrally. It needs to be emphasized, however, that the functioning of the population register without local databases in place relies heavily on the availability of a data-transfer network. In the instances where the network connection is off, the system will cease to deliver services. However, it appears that in most largely populated geographic areas (60 CSAR locations) connectivity is available. The SRS and the Kyrgyz government should, however, invest in ensuring permanent connectivity.

If the population register is maintained centrally, this also requires that there is a back-up mechanism in place, provided via the data-recovery centre in case of a breakdown of the main population-register database. This data recovery centre needs to be located at a different location than the SRS to allow data recovery in case of serious damage to or destruction of the premises that host the population-register database.

Network coverage

It is essential that the SRS be able to establish a data-transfer network to transfer data from the local to the central level, and vice-versa. The assessment identified two issues that need to be addressed in this context: the lack of funds for the implementation for a data-transfer network and the lack of connectivity in remote parts of the country. Ideally, fiber optic cable is needed to connect the central database and offices at the local level, but geography makes it impossible to establish such a link in remote and/or mountainous areas without high investment costs. .

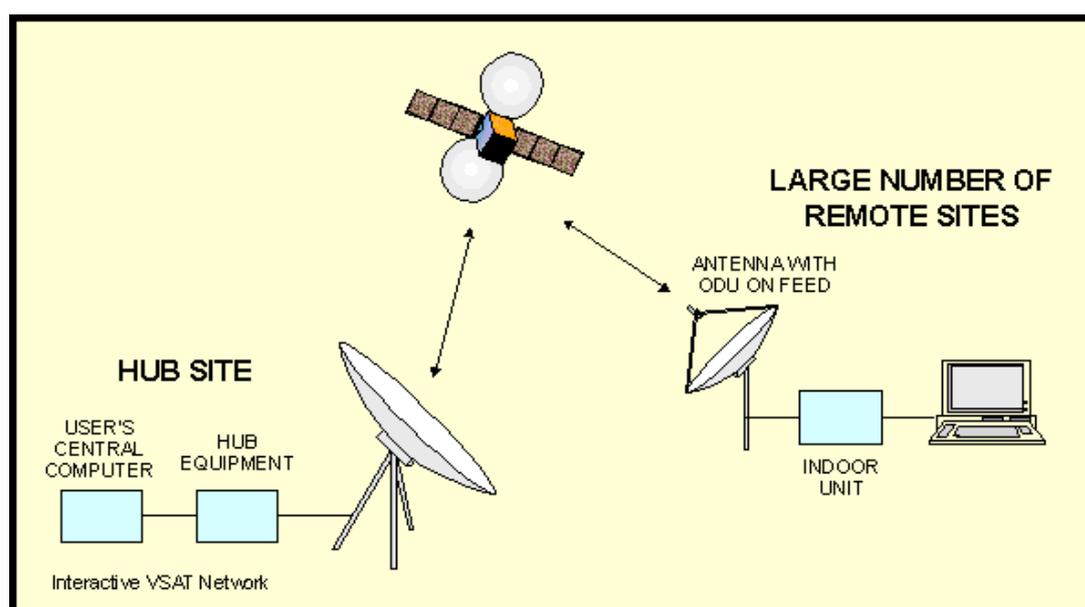
The Government of the Kyrgyz Republic would benefit from investing in a secured national data network to be used by all public institutions. The assessment concluded that Kyrgyz public institutions, often with international financial support, have resorted to building data transfer networks for their own institutional purpose only. It would, however, be much more beneficial if all Kyrgyz public institutions would cooperate to achieve the establishment of a single, secured national data network to be used by all institutions that require such a network. The Kyrgyz public administration would be better served if its public institutions join forces and resources to create such a governmental network.

In terms of short-term network requirements for population registration, it would be useful to consider a mixed solution that would incorporate secured hardwire network, satellite and, perhaps, mobile teams to establish conditions for data transfer. It is important to establish nationwide connection coverage since, in the instances when data transfer is done on a partly automatic and partly manual basis (optical discs, flash drives or similar), it brings with it high risks to data accuracy, as discs might get lost or forgotten to be merged with the central database. Consequently, manually delivered civil status data will not provide for the storage of up-to-date information in the population register.

A satellite connection will be the fastest, but most expensive way to install a data transfer network in the Kyrgyz Republic. A very-small-aperture terminal (VSAT) is a two-way satellite ground station with a dish antenna that is smaller than 3 meters. The majority of VSAT antennas range from 0.75 m to 1.2 m. VSATs are most commonly used to transmit broadband data for the provision of satellite Internet access to remote locations.

The most common VSAT configuration is the star network. With its star configuration network architecture, interactive VSAT technology is appropriate for any organization with centralized management and data processing. This configuration has been developed to minimize overall lifetime costs for the complete network, including satellite transmission costs. The use of a single high performance hub allows the use of low cost remote VSAT terminals and optimizes use of satellite capacity.

In a typical VSAT network, remote user sites have a number of personal computers, terminals and printers connected to the VSAT terminal, which connects them to a centralized host computer either at the organization's head office or data processing centre. Data sent to the VSAT terminal from the terminals is buffered and transmitted to the hub in so called "packets".



Interactive VSAT Network

VSAT networks are designed to be flexible and to evolve with user needs. VSAT terminals are controlled by microprocessors and can generally be re-programmed remotely, using downloaded software from the hub. If additional interfaces or capacity are required, adding or replacing cards in the VSAT terminal can provide them.

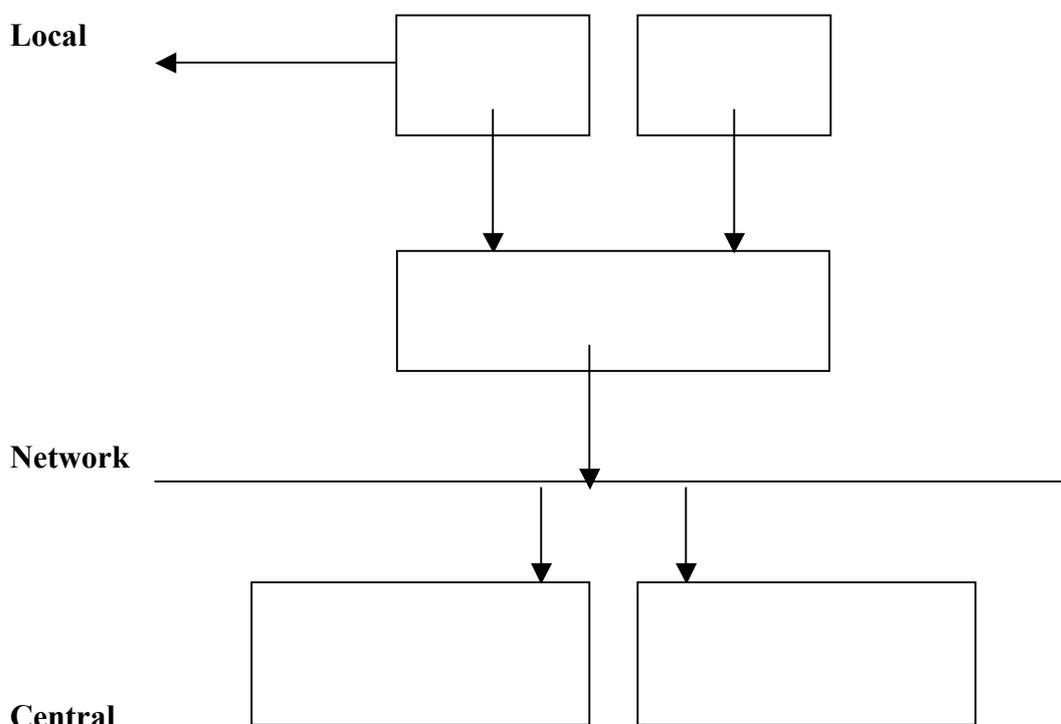
A satellite network can be considered as a possibility for the establishment of a secured network for data transmission in the Kyrgyz Republic, and should be considered, in any case, in rural areas as terrestrial links would be hard to establish. The establishment of a satellite network in rural areas can be done relatively quickly (in 2 or 3 months). It is considered the most secure way of transmitting data from the

local to the central level, with the use of a central hub connection between SRS and CSARs. Satellite network provision requires specially trained staff, however, to maintain the network.

The required budget depends on the contracting conditions with the selected satellite provider and the length of the contract. The initial budget to supply satellite dishes to approximately 260 rural CSAR/Local Government Bodies is between 0,7 and 1,1 million EUR in total. The annual running costs amount to between 5,500 and 40,000 EUR per month, depending on the requested bandwidth. These prices, however, are merely indications.

Major satellite operators have also started offering two-way broadband Internet connections via satellite at a dramatically reduced price. The implementation of such a system resembles the setup of VSAT.

For the Kyrgyz Republic it would be worth considering the establishment of a national data transfer network in phases. The build up in phases can be done in combination with the plans to merge the CSAR and ID document application offices in one service location. This means that, in the first phase, the 60 CSAR offices and the 63 ID-document application offices would be merged. This complements the plans for establishing the “single window shops” to improve services to citizens. If such a decision is endorsed, a detailed description of processes and procedures to receive population data by the 60 connected CSAR offices from those offices that are not connected will be required, so as to enable the updating of data in a central database. This proposal is not ideal in terms of data quality management but could be a solution for the first phase of establishing a nationwide data transfer network.



Electronic National Population Register System

As mentioned above, the basic concept for a computerized population registration system is based on the registration of civil status events acts (birth, marriage, death etc) and place of residence: one person-one file. The Civil Status Act registers are the source for the population-registration system. These source registers must be an integrated part of the population register. This means that CSAR office staff first register an Act (birth, marriage, death, etc.) based on required legal documents. Residence registration is done by documented proof of residence, i.e., a lease contract.

Once the regulatory framework for the functioning of a population register is adopted, the legal obligations will become clear, providing the basis for identifying system requirements. The system requirements will lead to a number of “use cases” that will be necessary to hand over to the company, that wins the bid. With this, the winning company will have an understanding of what would need to be changed in terms of technical requirements to operate the system.

At the moment, a PIN number is generated by the Social Fund for the users of Social Fund services. This means that only citizens that are eligible for benefits from the Social Fund will be provided with a PIN number. Therefore, many citizens who have not used Social Fund services to date do not have a PIN number. It is considered standard practice in many OSCE participating States that the PIN number for a child is generated when parents register the child’s birth. This implies that the population registration system must be able to generate the PIN number according to the existing algorithm now in use by the Social Fund. Consequently, the generation of the PIN number should no longer be the responsibility of the Social Fund but, rather, the responsibility of the SRS. Such transfer of responsibility needs to be agreed with the Social Fund and be reflected in legislation.

The context in which the population register is developed defines the manner in which the initial data collection for the population register will be conducted. When rich and complete sources of information already exist, the process can focus on identifying which database can best supply initial data and help provide updated information, as appropriate. When the baseline data is insufficient, it is necessary to develop mechanisms and the capacity to gather the initial data. The first step in defining the process of initial data collection for the population register is to conduct an assessment of the current state of data collection that will form part of the population register. In relation to available data, it is helpful to assess how available data sources will be used. It is also necessary to make a distinction between data entry, integration and archiving.

The conducted assessment indicates that a data-entry exercise (preferably a double-data entry) needs to be implemented in order to digitize information from the civil status registrar books, as the data from registration books need to be transferred into the population register for further electronic processing. The SRS should decide as to how far back in time (1920, 1930,...) the data need to be entered into the system. This will be time consuming work and needs to be carefully planned and controlled. There will be a need for a data-integration exercise between population-registration data (see previous point) and Passport (ID document) data to establish a solid population-

data source and match. There is also a need to create a digital archive of the civil status books, since currently there are about 60,000 books in four archives (Jalalabad, Osh, Biskek and Batken). Approximately 15 million records need to be digitized.

Address Registration

In order to create the principle of a *legal identity* for every citizen, the population-registration system should be able to register the address (place of residence) of every citizen. Connecting unique personal data with a unique location address will lead to the establishment of a legal identity for every registered citizen. To create a legal identity for every citizen in the population registration, the unique address needs to be stored in the register. The legal identity can be very beneficial for citizens as their personal data, including address data, will be made available to other (authorized) public institutions, which can then consider the information (person and location) received as valid. The citizen then has only to show the ID card with PIN number to allow public institutions to retrieve the citizen's legal identity, and changes to addresses will only require a visit to the civil status.

To facilitate this process, the SRS should co-ordinate activities aimed at establishing the following main preconditions, which are considered essential:

- 1) The Real Estate/Cadastre Department of the SRS should create/maintain an address register with all addresses in the Kyrgyz Republic. The Address Register would then become a data source for the population register. The Population Registration system will be updated (preferably monthly) with all new addresses in all territorial units.
- 2) In order to be able to register, the population register software must be able to register address data in a secure way, meaning CSAR staff should only be allowed to register if streets and street numbers exist in the register.
- 3) The Department for Registration of Population no longer has to be responsible for residence registration. This task could be transferred to the authority of the CSARs.

Equipment

The SRS has decided to include the requirement to provide a ready made system for population registration into the tender for biometric passport production. According to the SRS, the tender documentation will not contain any specific requirements for the population registrations system – instead, bidders have merely been asked to forward their proposals for the population-registration system. Asking for a population-registration system without providing any system requirements has advantages and disadvantages. One advantage is that the SRS can review the proposals without having to define specifications beforehand. The biggest disadvantage is that the bidders have no precise information in relation to the technical requirements for what the SRS wants to achieve. This can lead to a wide array of proposals, where every proposal includes some useful requirements and services. If there are no clear requirements for the population register in place, it will be very hard to evaluate the proposals. Furthermore, it would be difficult to turn down

proposals for “not fulfilling the requirements” if requirements are not known in advance.

Passport production companies, in general, are not specialists in population registration. They tend to consider the registration of the holder-page information in a passport as sufficient for population registration. This, however, is not sufficient. Population registration is a dynamic registration of events that can change every day, while passport registration is a static registration providing a snapshot of information valid at the moment when the passport was issued. This will not usually be updated until the next application for a passport. This is the main reason why an existing passport database that otherwise contains personal information does not qualify as a population register.

5 RECOMMENDATIONS

General

- The population-registration system should be placed in the centre of the SRS activities, as it affects all of its other activities and responsibilities.
- Information stored in the population register should become the only legally valid source of citizens’ personal information for all state provided services and products relying on personal data. No other public service than the SRS should be considered the authority on Identity Management.
- Data in the population register should be collected and updated at the point when the change in civil status or residency is registered by relevant authorities. The population register should not be based on the information copied from the applications for ID or travel documents.
- The principle of “register once - multiple use of information” should be introduced, where personal data should be gathered on the local level but shared with all public services.

Legal Framework

- The regulatory framework for the functioning of the population register needs to be fully developed as a basis for determining the legal responsibilities of the SRS in conducting population registration. Legal responsibilities should be used as guidance in designing the registration system and evaluating the bids for the population register from a technical requirements perspective.
- Other legislative acts should be harmonized with the regulatory framework for population registration in order to avoid overlaps and conflicting regulations.

- Registration procedures and, in particular, procedures for registration of place of residence need to be further simplified.

Operational implementation

- Implementation of a computerized population-registration system will require the installation of a data-transfer network in order to provide for the electronic transfer of information from the local to the central level. Consideration should be given to establishing a nationwide data transfer which would be used not only by the SRS but also by other public institutions.
- In the absence of nationwide data-transfer network, consideration should be given to the phased introduction of the nationwide network where in the first phase, 60 CSAR and ID Document Application Offices could be connected with the central database. These two departments, operating from separate premises at the local level, should then be merged at one location to create a single-window approach for citizens.
- The PIN number should be generated by the population-registration system upon registration of birth by CSAR offices. Therefore, consideration should be given to transferring this responsibility from the Social Fund to the SRS.
- Change of address (place of residence) should be registered by the CSAR offices based on required documents.
- The SRS should consider conducting a (double) data-entry exercise aimed at transferring registrar books into a digital format as a basis for providing initial data for the population register. In this context, detailed quality control measures should be put in place to avoid mistakes in the process.
- The SRS should consider conducting an integration exercise between digitized population registration data and Passport (ID document) data to establish one solid population data source for the population register.
- Consideration should be given to creating a digital archive of the civil status books. There are about 60,000 books in four archives (Jalalabad, Osh, Bishkek and Batken). Approximately 15 million records need to be digitized.
- Each personal file in the population register should hold the history of changes in terms of registered start/end date and the action that triggered the change of personal data in the register. This will allow the SRS to view not only the current registration data but also to audit historical changes of data on a person.
- All actions in the population register should be logged, in order to be able to follow and audit which registration actions were performed by which office and which employee.

- Aiming for implementation of the “one-window” principle for delivering services, the SRS should consider downsizing the number of local offices. The SRS manages too many local offices where all services have their own separate local office network. The “one-window” principle should ultimately lead to a “one-counter” principle for all services, or to merge services to provide civil status registration and enable ID document application and issuance, as well as drivers’ license application and issuance. The combination of these services as a first step should lead to a substantial reduction in initial investment and annual equipment and maintenance costs, as well as network connections needed.
- Consideration should be given to amending the internal organizational structure of the SRS, in order to increase efficiency in maintaining the systems under its responsibility, streamline maintenance costs, and to deal properly with suppliers of services to the SRS that are pivotal for the delivering of SRS services but are not controlled directly by the SRS.