Institutional Assessment of the Central Statistics Organization

WORLD BANK GROUP
Poverty & Equity

Institutional Assessment of the Central Statistics Organization[1]

Submitted to: Central Statistics Organization of Afghanistan

[1] This report was prepared by a team of experts of the World Bank including Bernd Struck, Christophe Dietrich, Saurabh Shome, and Christina Wieser and was supported by the Statistics Development Partner Community in Afghanistan.

Abbreviations

AFSTAT AFSTAT: Strengthening the National Statistical System project
ALCS Afghanistan Living Conditions Survey
ANDS Afghan National Development Strategy
ANPDF Afghanistan National Peace and Development Framework
ANSS Afghan National Statistical Plan
ANSS Afghan National Strategy for Statistics
BES Business Establishment Survey
BOP Balance of Payments
CDP Capacity Development Plan
CPI Consumer Price Index
CSO Central Statistics Organization
DAB Da Afghanistan Bank (Central Bank of Afghanistan)
DFID Department For International Development
DHS Demographic and Household Survey
DQAF Data Quality Assurance Framework (of IMF)
ECO Economic Cooperation Organization
EU European Union
GDDS General Data Dissemination Standard
GDP Gross Domestic Product
GFS Government Finance Statistics
GIS Geographic Information Systems
GoIRA Government of the Islamic Republic of Afghanistan
HR Human Resources
IARCSC Independent Administrative Reform and Civil Service Commission
IBES Integrated Business Enterprise Survey
ILO International Labour Organization
IMF International Monetary Fund
IT Information Technology
MDG Millennium Development Goals
MICS Multiple Indicator Cluster Survey
MIS Management Information System
MoF Ministry of Finance
MoLSAMD Ministry of Labor, Social Affairs, Martyrs and Disabled
NAD National Accounts Department
NHA National Health Accounts
NOE Non-Observed Economy
NRVA National Risk and Vulnerability Assessment
NSOs National Statistical Offices
OIC Organization of the Islamic Cooperation
PPI Producer Price Index
PSO Provincial Statistical Offices
ROSC Report on the Observance of Standards and Codes (IMF)
SAARC South Asian Association For Regional Cooperation
SDCA Statistical Data Centre for Afghanistan
SDES Socio-Demographic & Economic Survey
SDG Sustainable Development Goals

SRF	Statistics for Results Fund
SSA	Statistical System of Afghanistan
SUT	Supply and Use Tables
SWOT	Strengths, Weaknesses, Opportunities, Threats (Analysis)
UN	United Nations
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNSC	United Nations Statistics Commission
UNSD	United Nations Statistics Division

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1. Introduction

1.1. Context

Afghanistan has achieved substantial development progress since 2001, but faces important upcoming challenges. Government efforts supported by aid inflows have fueled rapid economic growth, expanded the quality of and access to basic social services, and improved the capacity of public sector institutions. However, deterioration in the security situation following the security transition in 2014 combined with declining international assistance pose formidable challenges for Afghanistan to manage its economy and deliver public services. The availability of high quality, reliable economic, socio-economic, and demographic statistics is vital if appropriate policy responses to these challenges are to be identified and implemented.

Substantial improvements have also been made in the capacity of the Central Statistics Organization (CSO) since 2001. After decades of violence and insecurity, the statistical capacity in Afghanistan had drained, and very few statistical operations were undertaken by the CSO. More recently considerable progress has been made, with CSO articulating strategic objectives for statistical capacity development needs, including through the publication of the Afghanistan National Statistical Plan in 2010 and the drafting of successor strategy in 2016. However, these plans were not used effectively as a base for actively shaping the CSO's core products, processes and to engage with donors in supporting CSO activities.

Some of the successes of CSO are the implementation of several rounds of donor-funded, nationally-representative household surveys and the expansion in coverage and scope of essential data such as consumer price statistics and national accounts. The CSO has developed significant capacity for survey implementation including sampling, questionnaire design, and data collection. The CSO also undertook efforts to reduce data gaps by conducing new surveys such as the Socio-Demographic and Economic Survey (SDES), the Afghanistan Demographic and Health Survey (AfDHS), and the Business Establishment Survey (BES), though implementation challenges remain prevalent. As a result of these improvements, the World Bank Statistical Capacity Indicator for Afghanistan increased from 31 points in 2005 to 51 points in 2017, yet, still much lower than the average of International Development Association (IDA)[2] countries (63 points) and other South Asian countries (74 points).

Despite recent improvements, the Afghanistan statistical system continues to exhibit some weaknesses in coverage, consistency, periodicity and availability of data. CSO has made progress on the scope and quality of primary and administrative data, but data remains limited and administrative records at national and regional levels are incomplete. CSO has worked on improving National Accounts but much remains to be done. Consistent and high-frequency data on private investment, remittances, informal trade, vital statistics, labor, and migration are not produced. This is partly due to reliance on donor-funded large surveys (that are implemented every 2-4 years) at the expense of conducting regular and more frequent, but smaller, sample surveys. Further, data collection, editing and processing at the CSO and other line ministries is organized in a batch mode, with data from different surveys being stored in a fragmented fashion. In order to transition to an integrated system of data capturing, processing and dissemination, changes are required not only in how surveys are implemented and how the CSO is organized, but also in the way donors support CSO. Finally, the communication and coordination of statistical activities between the CSO and other line ministries is

[2] IDA is one of the largest sources of assistance for the world's 75 poorest countries and IDA lends money on concessional terms.

particularly weak. Statistical concepts, definitions and classifications across all agencies and ministries need to be harmonized and a system of regular data sharing needs to be established.

Despite improvements in the capacity of some parts of the CSO (particularly those driven by donor funding), we observe concerning signs of donor fatigue. Donors are re-evaluating their strategic investments in the statistical capacity of Afghanistan. As a result, important surveys, such as the Afghanistan Living Conditions Survey (ALCS), show alarming funding gaps. To ensure that Afghanistan continues to make evidence-based policy decisions, it is imperative to further improve the systems and capacity at CSO to allow for the continuation of relatively more expensive, but critical, donor-funded surveys while improving the access to and quality of administrative data.

It is in this context that the Statistics Donor Community proposed an institutional assessment of CSO led by a World Bank team and supported by the CSO. The institutional assessment of CSO aims at (i) assessing and documenting the achievements that the CSO has made in the past 10 years including the successful implementation of the ALCS and other surveys; (ii) identifying current technical and institutional capacity gaps; and (iii) identifying how donors can better support CSO in a coordinated manner in the future. Both CSO and donors have shown significant interest in such an institutional assessment that can be used by (i) CSO to continue its transition towards a modern, capable and reliable statistical agency; (ii) CSO and donors to renew engagements and funding to continue the household survey and National Accounts system; and (iii) CSO and development partners to operationalize CSO's Statistical Master Plan.

1.2. Objectives of the assessment

This institutional assessment is focused on assessing the CSO's status quo and on identifying areas where the organization can further strengthen the institutional setup, data development, and statistical and physical infrastructure in the implementation of CSO's statistical activities.

The objectives of the stocktaking therefore evolve around the assessment of whether 10 years of technical assistance by donors has yielded the desired/expected outcome in terms of increased capacity at the CSO and improved quality of data and statistics. This stocktaking further allows the CSO and donors to think of how technical assistance programs can be delivered differently in areas where the outcome has not shown expected results and what institutional changes/improvements in processes of the CSO are necessary to increase the impact of donor support. Furthermore, this assessment would like to explore areas where CSO's capacity on an institutional level and in technical domains is lacking to improve its effectiveness and efficiency of carrying out statistical activities and cooperate with line ministries and international partners. For development partners, it will serve as a guidance to better coordinate their actions and to navigate the direction of support. Specific objectives of the stocktaking include to:

- Document areas where strong capacity has already been built to better utilize lessons learned and apply them to other areas.
- Create a common understanding for identifying new and streamlined lines of support by donors.
- Suggest improvements of processes that enable CSO, to generate sound national or regional statistics.
- Highlight opportunities for capacity building for targeted and coordinated donors support.
- Assess the legal framework to formalize the sharing of responsibilities and work arrangements between the CSO and other line ministries.

- Assess the organizational structure and management approach to further streamline the workflow of CSO's activities.
- Evaluate the quality of the statistical system for reliability and collaboration.
- Evaluate donor support against selectivity, efficiency and effectiveness of funding.

The goal of the institutional assessment is not to "reach for the stars". Rather, we focused on actions and activities that can be realistically implemented by CSO with support from international partners, in the near future, within a 5-year planning horizon. While visionary ideas provide the broad framework, a focus on realities of CSO's current situation, given funding, current structure, and capacity gaps is crucial. We attempt to contribute to paving a realistic, yet, ambitious way towards creating a modern, effective, and efficient organization responsible for producing statistics as well as harmonizing and coordinating all statistical activities in Afghanistan.

1.3. Approach in this assessment

To achieve the above outlined objectives, a team of experts, with long-standing experience of working with CSO, undertook a candid, constructive and forward-looking evaluation of current internal processes and workflows of CSO departments based on review of documents and interviews with key technical, managerial and administrative staff of CSO from units across the organization[3]. The assessment focused on assessing CSO's products, processes, as well as structure and staffing and provides recommendations in each of these areas. Given that international partners have played a crucial role in supporting the development of statistics in Afghanistan through the CSO, the assessment also includes a review of donor engagements at CSO with a focus on gauging the success of past engagements but also critically evaluating donor support that has not resulted in positive outcomes of sustained capacity building.

More precisely, the institutional assessment provides an overview of the institutional setting that CSO is embedded in by shedding light on the Statistical System of Afghanistan and CSO's budgetary trends (section 2). The team critically reviewed current products (section 3) and processes (section 4) to better understand how CSO could improve performance, in specific areas such as social and economic statistics. The team further examined the current organizational structure and capacity gaps and provides recommendation on additional staffing needs (section 5). This report also includes a critical assessment of donor support aimed at (i) precluding duplication of donor efforts; (ii) avoiding silos resulting from donors focusing on products of their specific interest; and (iii) better aligning donor funding to support the CSO as an institution rather than individual products (throughout the report and section 6). To identify gaps and to draw up a roadmap for how CSO can effectively address capacity gaps and where donor support is most needed, the assessment includes an overview on capacity development including a review of the largest capacity gaps and ideas for successful capacity building of CSO staff's technical and non-technical skills (section 6).

The team attempted to provide a comprehensive overview of the institutional capacity and gaps therein by looking at different parts of the organization and the internal and external environment of CSO. However, certain aspects remain outside the scope of this assessment such as analyzing the structure, role, and effectiveness of the Provincial Statistics Offices (PSO). Furthermore, developing a

[3] Due to time constraints in conducting this assessment and security restrictions which prevent frequent and long visits to Kabul, the number of interviews was limited and focused on heads of departments of statistics departments and large administrative departments. To maintain independence, the Senior Management team of CSO was not interviewed, however, results on the findings of the institutional assessment were presented to the Senior Management Team (including President General Mr. Rasuli and Deputy President General Mr. Mowahed). For further details on the participants and reviewed documents, please refer to Annex 2: List of conducted interviews and reviewed documents.

clear plan for staffing remains outside the scope of this assessment as a detailed Human Resource Assessment would have to be undertaken by CSO, incorporating the institutional restrictions (i.e. Civil Servants Law) that CSO operates in. IT solutions are mentioned but a detailed plan of which IT solutions should be implemented also remains outside the scope of this assessment.

1.4. Vision of the CSO

Effective implementation of strategies to develop the institution follows a clearly articulated and understandable vision. During interactions with the CSO leadership, a clear and concise near-term vision for the CSO was articulated. The vision is to make CSO the government's hub for all official primary and secondary data in the country. This can be achieved by strengthening the use of administrative data compared to survey data, since the latter is not only costly (funded by donors) and subject to disruption risk (if donors were to stop financing them), it also faces significant implementation challenges given the current insecurity in the country. According to authorities, achieving this goal is premised on two pillars: (i) creating an Information Technology framework for real time sharing of unit record level data between the various ministries (including government institutions like the central bank) and the CSO; and (ii) reorganizing the CSO and its staffing to more effectively enable this inter-agency data sharing.

While authorities acknowledge the importance of collecting primary data through surveys and the biases that administrative data may suffer over time, collecting administrative data is one of the major tasks of the CSO, and one in which it faces significant hurdles. Twenty-two ministries have statistical units with varied capacities, of which the Ministry of Public Health (MoPH), Ministry of Education (MoE), Ministry of Agriculture, Irrigation and Livestock (MAIL) and Ministry of Rural Rehabilitation and Development (MRRD) have relatively stronger statistical units (World Bank, 2016). One of the primary building blocks for such an IT framework will be to operationalize a full-fledged data center at the CSO with a back-up data center at a remote location to ensure resiliency.

In this aspect, the current vision seems more specific than in the 2010 Afghan National Statistical Plan (ANSP), whose strategic objective was to upgrade the conceptual, methodological and analytical skills of the CSO and other data producer and user agencies in the country (World Bank, 2016). To achieve the objective of the vision of the ANSP, a series of activities were envisaged including (a) improving the framework for institutional and capacity development, (b) improving data collection and analysis, (c) preparing and conducting the Population and Housing Census, (d) improving administrative data systems and other data from line-ministries, (e) developing information and communication technology infrastructure, and (f) enhancing physical infrastructure (World Bank, 2016). For financing the plan, the Statistics for Results Facility (SRF), a multi-donor trust fund administered by the World Bank, provided grants to implement a statistical capacity building project named AFSTAT: Strengthening the National Statistical System. Unlike other TAs, the AFSTAT was implemented and executed by the CSO, with the supervision support of the World Bank. The project was based on a system-wide approach, better coordination among users and producers, and more effective assistance through coordination and alignment to national statistical plans. Unfortunately, this engagement was not completed successfully and important lessons which are outlined in the next section will hopefully help in shaping the future engagement of CSO and their donors.

1.5. Lessons from previous donor engagements[4]

Throughout the years efforts to improve the national statistical system seemed to be suffering from excessive planning but poor implementation. In 2004, a Statistical Master Plan was articulated.

[4] These results mainly stem from the World Bank's project completion report (World Bank, 2016).

Following limited progress in implementing the Plan, a seven-year Capacity Building Plan was envisaged in 2008-09 to cover the period between 2009 and 2015. Review of the capacity building plan with donors to garner their support suggested that the envisaged plan needed more prioritization and sequencing. This led to the development of the ANSP in 2010 (CSO, 2011) by the CSO. The ANSP recognized that developing statistical capacity at the CSO had been less effective than desired, largely because since 2001 there was an attempt to do too much too quickly (CSO, 2010). The plan envisaged a five-year Capacity Development Plan from 2011 to 2015, laying out the activities and the costs involved. A cornerstone of the capacity development plan was to develop capacity by a process of "learning by doing" through a series of surveys largely financed by donors. It recognized low pay scales to be a major hindrance in attracting and retaining educated staff. And it recommended a data warehouse for managing survey data that was either already with the CSO or would be collected by it, in future. It also acknowledged that though data analysis was not a core expertise or mandate of the CSO, it desired to develop this capacity, an attempt that has only taken effect in few cases at CSO.

After much analysis, coordination and planning, and in tune with the Afghanistan National Statistical Plan, 2010, the World Bank funded the AFSTAT project in March 2011 through the SRF Catalytic Fund.

Two years into project implementation, in March 2013, the CSO finally entered into a twinning partnership with the German International Cooperation– International Services (GIZ-IS) as an implementing partner. Even though the project had a promising start, it failed to satisfactorily achieve its project development outcomes. A mid-term review in 2013, a quality assurance review in 2015 and a final Implementation completion review in 2016 were conducted. Despite a candid and detailed mid-term review, the project continued to suffer, due to many inter-related reasons, which can be classified into two overarching categories – overly ambitious scope of reforms without affording due consideration to existing ground realities and difficulties inside CSO and in the leadership of the GIZ project to sustain the reform momentum.

The envisaged reforms were overly ambitious in scope. Donors fielded a team that was technically proficient, but was unable to fully comprehend the complexity of the challenge. So even if the activities were fully aligned with the country needs and development objectives, a poor appreciation of the institutional challenges faced by CSO and a lack of prioritization and reform sequencing led to an unusually wide scope of tasks and activities, thereby resulting in loss of focus. Furthermore, the project suffered from a rather rigid framework that did not allow much scope for adaptation and flexibility during the course of implementation. The changes within CSO did not support the creation of an enabling environment for reforms as this also happened at a broadly similar time as the reform of the statistics law which did not provide the necessary stability required to implement reforms at CSO.

Any reform efforts rely critically on the commitment and involvement of a reform champion. After the unfortunate demise of the then President General of the CSO, Mr. Ghafoori in 2013, such a champion to sustain the reform momentum was missing. This also contributed towards an unsuccessful project implementation. A host of inter-related challenges cropped up, and the limited capacity and experience of CSO to effectively manage a large project (resulting in mid-term deviations from agreed implementation plans and processes) contributed to delays. This combined with low staff capacity and a lack of supervision of CSO staff deliverables led to a lack of ownership and underperformance at the working level.

Another key finding was a lack of coordination and cooperation among the different institutions (donors and CSO alike) and departments within the CSO. Staffing changes in the many administrative

structures such as a Project Implementation and Coordination Team (PICT) tended to obfuscate responsibility and decision making and over time these structures lost their initial roles. For example, the resignation and dismissal of key project personnel by the CSO management (project coordinator, procurement and financial specialists) in 2013, adversely affected the quality of the PICT and its performance declined. This loss of momentum was widespread across institutions. The twinning partner GIZ-IS often fell short in its ability to mobilize key experts for activities, particularly for the ICT component, and sometimes delivered unsatisfactory results. The tense working relationship between the CSO and GIZ adversely affected the progress of the report and finally led to the cancellation of the GIZ contract in December 2015. This loss of capacity building initiatives and role of coordination through the SRF, also affected parts of the CSO, which were not directly affected by the SRF, such as the ALCS.

As a result, of the total USD 14 million project commitment, only about USD 4.7 million or 33.6 percent was disbursed while USD 9.3 million (66.4 percent) had to be cancelled. Thus, a large number of activities were left unfinished or some not even launched. Even though the ambitious AFSTAT project terminated on schedule in 2016 with unsatisfactory results, continued commitment from the CSO and the World Bank led to the on-going Bank-executed technical assistance to carry forward the achievements.

With renewed focus of the CSO leadership on reforms, there exists a window of opportunity for sustained engagement and reforms, notwithstanding the difficulties in the past. While all aspects of the improvement plan are important, past experience shows that there is a need to prioritize and sequence reform efforts. Some activities such as attracting and retaining the desired quality of human resources in a low remuneration regime and improving the capacity of the CSO staff, with lower than desired educational qualifications, are by nature long drawn out processes. Prioritizing other reforms that can afford quick wins and create the conditions for improving human resource capability may be more feasible. Two such reforms can be setting up a data center followed by the information technology framework to link ministries with the data center and revamping the data dissemination platform on the CSO website.

2. Statistical system of Afghanistan

2.1. Statistical System of Afghanistan

The Statistical System of Afghanistan (SSA) has a centralized set-up. The Central Statistics Organization (CSO), with approximately 600 permanent staff was established in 1973 and is the main body responsible for programming, planning and coordinating statistical surveys in the country and for conducting selected surveys, according to the Statistics Law of 2013, further amended in 2016. The CSO collects administrative data from many government agencies and uses this data to prepare its national accounts and to produce Statistical Yearbooks and other publications. Statistical operations in the country are not limited to the CSO. A large number of ministries, non-ministerial government institutions, development partners, research institutes, Non-Governmental Organizations (NGOs) and universities are also part of the SSA. Twenty-two ministries have statistical units with varied capacity, some of which like in Ministry of Public Health (MOPH), Ministry of Education (MOE), Ministry of Agriculture, Irrigation and Livestock (MAIL) and Ministry of Rural Rehabilitation and Development (MRRD) being better resourced and stronger than others. Several Ministries (MOPH, MOE and MAIL) supply aggregated data to the CSO from their branch offices. Other line ministries and agencies collect statistical data for their own administrative purposes and send them to the CSO when needed.

There is no single mode of operation in the SSA; some SSA participants act unilaterally in certain circumstances or through joint interventions with the CSO and/or other agencies.

The country's vision for development was outlined, for the first time, in the Afghanistan National Development Strategy (ANDS). The SSA, led by the CSO, needed to provide reliable and timely statistics for policy makers and stakeholders to implement the ANDS by collecting the data required to support evidence-based policy making in Afghanistan. A good statistical system is essential for monitoring the progress and impact of development interventions on poverty, other social and economic outcomes.

In 2010, the Afghanistan National Statistical Plan (ANSP) was endorsed by the Statistics Task Force (National Partnership) and the government in 2010 to define a work program for the SSA and a training plan to build statistical capacity, so as to undertake all activities and build a sustainable and efficient institution. The major strategic objective of the ANSP was to upgrade the conceptual, methodological and analytical skills of the CSO, as well as other data producers and user agencies in the country. In 2016, and with reference to Article 2 and 7 of the new Statistics Law, the CSO developed a new Statistical Strategy, the Afghanistan National Strategy for Statistics (ANSS) for the years 2016 to 2020. The mission of managing, strengthening and standardizing the statistical system, to develop and expand statistical activities for the production and supply of quality data in different areas of economic and social activities was to be achieved via (i) creating integrated scientific system of statistical data; and (ii) assuring the coordination and harmonization of all statistical activities in the country. Annex 1: The Statistical System of Afghanistan provides a detailed overview of the SSA and its various components.

2.2. Budgetary trends

Besides budgetary support by the government, CSO activities are actively funded by donors. All the recurrent operating costs of the CSO and some development costs are financed from government's own resources. Donors finance most of the costly survey based data production and analysis directly via off-budget channels. When the AFSTAT: Strengthening the National Statistical System project was active, it was estimated that almost two-thirds of the annual expenditure of the CSO was financed by donors (World Bank, 2016). The AFSTAT project has been the only on-budget donor project funding for the CSO aimed at various interventions to improve the capacity of the CSO. The following table lists the major surveys and their sources of financing and technical support.

Table 2.1: Major surveys and donor support

MAJOR SURVEYS	LEAD DONORS	TECHNICAL SUPPORT
ALCS/NRVA	EU	WFP, ILO, UNICEF, WBG
SDES	DFID	UNFPA
DHS	USAID	
BES	WBG	WB, DFID

Source: Authors' elaboration.

An analysis of budgetary trends reveals that on-budget resources available to the CSO, declined sharply in 1396 (2017) after growing steadily for the past seven years since 1389 (2010) (Figure 2.1). The decline was due to a reduction in the development budget as the AFSTAT project ended in February 2016(Figure 2.2).

Figure 2.1: CSO operating and development budget; AFN millions

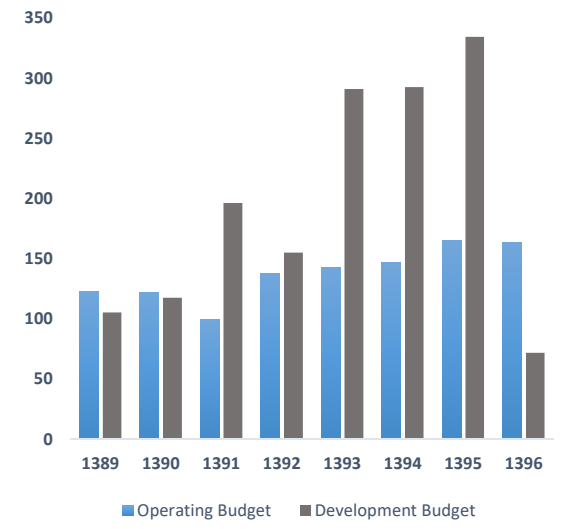
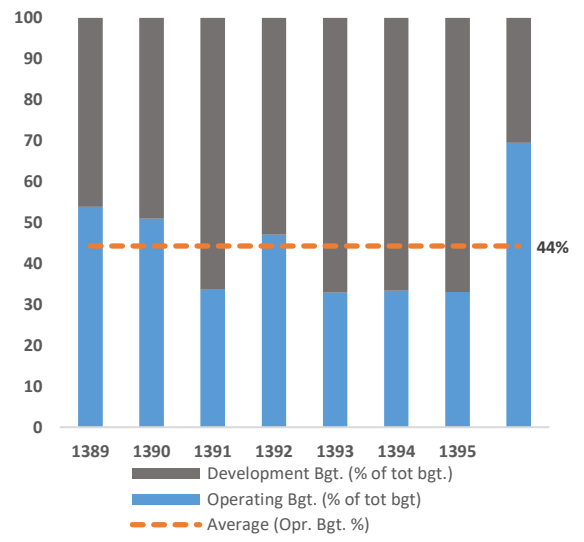


Figure 2.2: Share of Operating and Development budgets; percent of total budget



Source: National Budgets, Ministry of Finance.

CSO expenditures have generally followed a declining trend. CSO's budget execution rate, though volatile, has been especially dismal since 2014. Thus, the precipitous drop in budget execution rate since 2013 was driven by both, an increase in the budgeted amount as well as a decline in development expenditures. Indeed, the CSO spent less even in nominal terms between 1393 and 1395, when the government and donors together were prioritizing CSO's activities, evidenced by a sharp increase in budgetary allocation for development expenditures.

The CSO has become more efficient in managing its operating costs. The drop in the execution rates of the operating budget indicates a more realistic formulation of the operating budget followed by an efficient use of budgeted operating resources (Figure 2.3). However, the sharp fall in the already poor execution rate of the development budget, to below 20 percent of the allotted budgeted amount, since 2013 indicates a virtual stalling of development expenditures (Figure 2.4).

This drop in the execution rate of the development budget was a direct fallout of the poor implementation of the on-budget AFSTAT project. Since, the AFSTAT was an on-budget government-led program for development of the National Statistical System in the country, lessons from its implementation must inform future initiatives.

Figure 2.3: CSO budget, expenditures and execution rates; AFN millions (Lt. axis), percentage (Rt. axis)

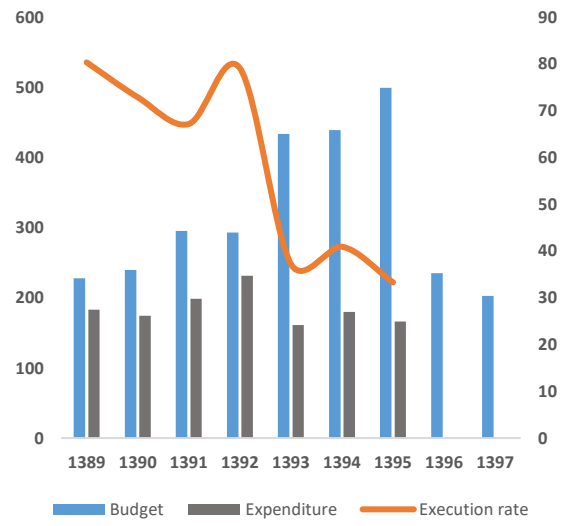
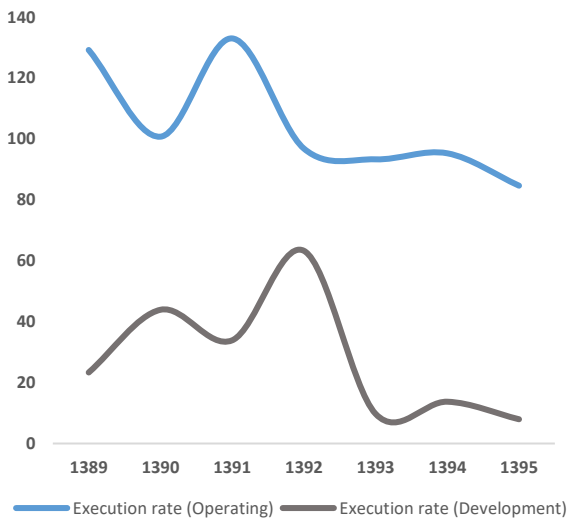


Figure 2.4: CSO budget execution rates; percentage



Source: AFMIS, Ministry of Finance
Note: In 1391, the months of the fiscal year were changed, the AFMIS expenditure data for 1391 thus refected only 9 months of expenditure. The 9 month data has been adjusted upwards to reflect 12 months data in order to make it comparable with other years.

2.3. SWOT analysis

For an overview of CSO's overall performance and function within the SSA, we provide an analysis of strengths, weaknesses, opportunities and threats (SWOT) of CSO (Table 2.2). This SWOT analysis does not address special domains of statistics (which is undertaken in separate sections throughout the report), rather, it provides an overview of the current situation of CSO in its enabling environment.

Table 2.2: SWOT analysis of CSO and its integration in the SSA

Strengths	Weaknesses
▪ Strong position within the GoIRA, no subordination to a ministry ▪ Donor support enabled production of high quality statistics, albeit insular ones (NRVA / ALCS, SDES) ▪ Well-orchestrated public presentation of results (yearbook presentations, review of population estimates, ALCS results) in press conferences ▪ Readiness for developing modern planning tools like National Development Strategy for Statistics (according to PARIS21) or quality management, albeit with a low propensity for follow-up and implementation in practice ▪ Availability of updated data through household survey system	▪ Lack of capacities of qualified staff, strong dependency on donor support ▪ Structure of staff: too many statisticians, not enough other faculties like economists, demographers, engineers etc. Not enough managers, programmers and IT-specialists ▪ Structure of staff: Heavy on support but not functional staff ▪ Organizational structure: Many departments with cross-cutting issues compared to only three departments dedicated to specific statistics ▪ High concentration of funding in FOD compared to functional departments ▪ Hierarchical organizational structure which limits cooperation between departments and necessitates clearance of senior management even on issues of routine or minor importance ▪ Role of Regional and Provincial Statistics Offices (RSO and PSO) in support and coordination of field operations is quite limited

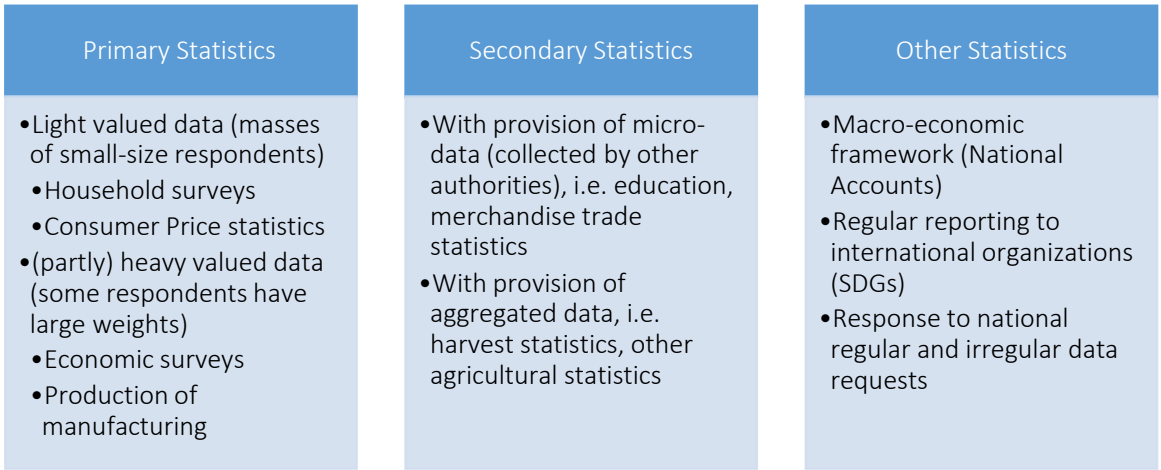
	▪ No systematic description of metadata and a lack for a central repository of microdata
Opportunities	**Threats**
▪ Country's overall situation leaves no doubt about the importance of reliable official statistics (supported by donors) ▪ World-wide initiative of SDG indicators (Agenda 2030) gives a strong push to demand for high quality statistics ▪ Momentum of new leadership and political support ▪ Reduction of donor support, if materialized, may emancipate CSO from donors' interference in the priorities of its agenda ▪ Acceptance of CSO into the Capacity Building for Results (CBR) program ▪ Technical support from international partners, particularly on surveys ▪ Stronger CSO-donor coordination	▪ Security situation in Afghanistan hampers country-wide data collection and puts enumerators and field staff at risk ▪ Donor fatigue and reduced funding ▪ CSO's relevance in the NSS (ministries are continuously getting funding for nation-wide surveys without involving CSO) ▪ Capacity building through investment in human capital may encourage well-trained staff to leave CSO for jobs which are better paid ▪ The use of CSO data in Ministries for the purpose of policy planning appears limited, hence putting the relevance of CSO at risk

3. CSO's Products

3.1. Overview of products

The products of CSO can be grouped by origin and/or processing of the data as well as by statistical domain. Considering both criteria, this assessment roughly classifies the CSO's products as follows:

Figure 3.1: Overview of CSO's products



Source: Authors' elaboration

In addition to the products mentioned in Figure 3.1, CSO contributes to the compilation of composed indicators from survey data such as poverty estimates, and the indicators for the Sustainable Development Goals (SDG). Unlike most other National Statistics Offices around the world, census data collection is not mentioned as a CSO product at this point in time. Even though CSO has gained experience conducting large census-like surveys (SDES), CSO has not conducted a full census due to conflict in the country and Afghanistan did not participate in the census round of 2010-11 and does not prepare for the upcoming round in 2020-21.

3.2. Primary Statistics

Primary data in Social Statistics. The NRVA/ALCS is the longest standing CSO survey series with its first round in 2007-08.[5] Since then, three more rounds with one round soon to be published. The survey has largely contributed to the development of CSO operational capacities, especially since 2011. Despite starting from a very low level of capacity, one of the major success stories of the ALCS has been the continuous transfer of knowledge and functions through a technical assistance component to CSO for large, yet not all, parts of the survey. Given that the NRVA/ALCS has been continuously supported by development partners, it provides a useful source of lessons learned, tools that have been developed and could be implemented for surveys[6]. The ALCS is also the main data source for policy making in numerous topics of interest to the ministries and beyond.

Other relevant primary social statistics in Afghanistan are:

- Socio Demographic and Economic Survey (SDES)
- Demographic and Health Survey (DHS)
- Women and Men in decision making survey

To seek synergies and efficiencies in data collection expenses, some stand-alone survey which were previously implemented by CSO, were integrated into the recurring surveys such as the Multi Indicators Cluster Survey (MICS) which was largely incorporated into the NRVA/ALCS and the UNICEF' plan to integrate the Water and Sanitation survey into the ALCS.

Surveys are the major source of primary statistics and data in the social economics area. These surveys are also the base for monitoring the SDG framework as well as the socio-economic aspects of the Afghanistan National Peace and Development Framework (ANPDF) and were previously used for monitoring of MDGs and ANDS. The main outputs of the range of household surveys are data on poverty and food security, maternal health and child mortality, demography, labor market outcomes, educational attendance, housing and amenities, as well as access to infrastructure. Some of outputs of household surveys are or can be used for economic statistics and national accounts such as data on household expenditures.

We recommend for CSO to continue to invest in the household survey system and to strengthen CSO staff's capacity to, in the long-term, conduct large-scale household survey through the national budget and CSO staff resources as well as to possibly expand to a wider range of surveys.

Primary data in Economic Statistics. Primary statistics dedicated to business and economic affairs are few in number and less outstanding than the ones on social and demographic aspects. The Consumer Price Index (CPI) is the only primary statistics collected by CSO in economic statistics with constant improvements in the methodology but relatively little support from donors. The opposite holds true for the two private sector business censuses undertaken by CSO in 2008-09 and 2014-15. Both had high expectation for integration into the National Accounts but were unfortunately not successful[7].

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[5] The NRVA 2007-08 was the first round implemented by CSO; previous rounds in 2003 and 2005 were implemented by MRRD.

[6] Annex 3: Good practices and lessons learned through the ALCS provides details on the how capacity was built over time and why the implemented model proved successful.

[7] For the BES 2014-15, the Economic Statistics Department decided to undertake field operations themselves but with little experience, failed to properly implement the sampling plan, did not apply the industrial classification in the required detail, and could not ensure the necessary data cleaning procedures. Moreover, it also demonstrated that CSPro, the software typically applied in household surveys and initially selected for data entry of the BES, has its limits for surveys with many monetary variables and more capacity building has to be undertaken in training CSO staff to program CSPro. Another source

Despite little experience, the Economic Statistics Department decided to undertake field operations themselves for the BES 2014-15, rather than letting the Field Operations Departments (FOD), specialized in survey implementation, undertake data collection. This experience evidenced that survey implementation is challenging and should be undertaken by the specialized FOD, who have acquired these skills over the past decade with support from international partners.

The BES further evidenced that, in Afghanistan, the propensity of enterprises and establishments to provide the required statistical data is low[8]. One of the main challenges for CSO in improving products of economic statistics is to convince enterprises and establishments to provide data (which they are obligated to provide by law). If improvements to enterprise data are not made, the system of economic statistics will remain poor as secondary data will not suffice to provide reliable data for the National Accounts[9].

CSO is regularly collecting data on the production of selected manufacturing items but this practice is widely confined to quantities of production, rather than being a full-fledged economic survey with a minimum set of variables of at least output, wages and salaries, and employment.[10] Moreover, the scope of the reporting units depends on address lists from public authorities and it is not known to which extent it reflects the full spectrum of activities of the specific branch in the country. Nevertheless, out of the reported quantities of selected items, such as some construction materials, CSO could (and should) easily compile a production index which then may serve for extrapolating construction activities.

In the spectrum of economic activities, to provide reliable data for National Accounts, CSO should come up with launching surveys mainly in construction, trade, transport and private services. In an initial phase, these surveys could be annual with a certain cut-off threshold and a minimum turnover or employment as a criterion. Such surveys are costly and time-consuming when the addresses and data for applying cut-offs are not at hand. We therefore highly recommend that CSO launches a statistical business register including all relevant statistical units of a certain size for which a new round of the Business Establishment Survey could be the starting point. It would be useful to start capturing GPS coordinates of the enterprises and establishments to enable GIS mapping and using it for support and supervision of field staff visits.

3.3. Secondary statistics

Presently CSO seeks economic data from secondary sources wherever possible for two good reasons: one, primary statistics are costly and two, security challenges may hinder to conduct interviews with companies. However, many questionnaires used to transmit data for secondary data collection are

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of problems was the necessity to hire unexperienced staff for coding and mass data entry from outside resulting from the fact that "regular" data entry staff was busy with other surveys. As a consequence, numerous severe flaws during data entry, which in case of heavy valued data can even destroy the results, existed. For example, incorrectly entering the number of zeros for variables of a large company can easily affect GDP by several percentage points.

[8] Despite of intensive visits of respondents, response rates remained similarly unsatisfying as was the case in 2008-09. In the case of the very few and well-known telecommunication companies, for example, it was extremely difficult, even with the support of the Ministry of Telecommunication, to receive information from at least some of the main variables.

[9] The challenge of convincing respondents who are unwilling to respond will also arise when price statistics are extended to producer price indices (PPI) as such prices cannot be collected easily through shop visits. It requires cooperative producers to regularly report prices for selected goods they produce. It furthermore requires an appropriate weighting scheme. CSO has already been trained in compiling a PPI which has been on the agenda for fulfilling the requirements of the IMF's General Data Dissemination Standard (GDDS) for a long time.

[10] Employment data on the demand side of the labour market would be a welcome addition to the supply provided through household surveys.

outdated and often the definitions are not fully reconciled with one another and with National Accounts.

The most important secondary economic statistics are merchandise trade statistics, also called external trade statistics. They are based on micro data on imports and exports stemming from the customs authorities. The classification of the goods follows the so-called Harmonized System of the United Nations and its quality is as good as in most other countries, however, almost half of all imports are classified as "others" which impedes on the usefulness of the results.

Among secondary economic statistics based on aggregated data, there are some which CSO could bundle under "public sector statistics" with the core of what in most countries is called "Government Finance Statistics" (GFS) and including all register related activities (which should include the proposed statistical business register). Under GFS all secondary data related to figures provided by MoF, by the Municipality of Kabul, and the municipalities of provinces should be captured. Moreover, CSO should publish the GFS data in a separate format, outside the Statistical Yearbook. As there are no restrictions on space, the CSO could publish more complete GFS data and use the yearbook to showcase the core of GFS data.

3.4. Other statistics

Social Statistics. For secondary social statistics, we recommend improvements on providing up-to-date information on socio-economic and demographic topics. The likely adoption of new population projections will trigger a sequence of revisions of various demographic data which could be used as a starting point to provide thematic reports on population issues. One idea in this direction is to test the feasibility of population projections and more detailed population analysis (based on UNFPA methodology) to support policies on population development. For example, current economic growth projections by the Ministry of Finance (MoF) can easily be undermined by population growth rates, yet, no detailed analysis exists. Furthermore, important products on demographic issues, such as vital statistics and migration, do not exist and we recommend for CSO to more heavily engage in producing and analyzing demographic data.

National Accounts. Besides primary and secondary economic statistics, the National Accounts of Afghanistan are the third category of CSO's products producing statistics on business and economic affairs. Despite many improvements in the past years, National Accounts in Afghanistan suffer from problems which most developing countries have: (i) the informal sector is large and even the formal sector is not well documented; (ii) the recording of humanitarian aid and Technical Assistance is incomplete and difficult; and (iii) the resources for statistical surveys and the technical capacities for exploiting them is limited. Moreover, the present conflicts in the country worsen the data situation as censuses on population, housing, agriculture and/or livestock are outdated and conducting new surveys is hampered by security concerns. Above all, Afghanistan's GDP heavily depends on the inclusion or exclusion of opium production which is difficult to estimate. Presently, the National Accounts are in the process of migrating to the latest version of the System of National Accounts and of rebasing its time-series, supported by Technical Assistance from the World Bank. This assessment shows that by their very nature, National Accounts are the genuine source for macro-economic analysis. National Accounts should therefore be given the coordination and presentation (if cross-cutting) of all economic statistics at CSO, including report writing and analysis. Moreover, we recommend for CSO to produce a regular publication on the results of the National Accounts, independent of other economic statistics.

National Health Accounts. CSO is not involved in the specialized accounting framework carried out by the Ministry of Public Health (MoPH), the so-called "National Health Accounts" (NHA). This assessment recommends that in the middle and long run, CSO should become Afghanistan's sole statistical hub for producing official statistics, unless exemptions are justified for good reasons, i.e. the DAB producing the balance of payments and the flow-of-funds accounts. However, tasks such as compiling the NHA require strong technical resources and expertise of the subject matter. Presently, migrating the NHA and the respective experts from MoPH to CSO would not be advisable as the likely resulting isolated donor-funded product would not be integrated with other statistics.

3.5. Recommendations on CSO's products

Primary Statistics. We recommend for CSO to continue investing in the household survey system and strengthening CSO staff's capacity to, in the long-term, conduct large-scale household survey through the national budget and CSO staff resources as well as to possibly expand to a wider range of surveys. In the past, the CSO has relied–and continues to rely–on individual, large, costly surveys funded by the donors. We suggest for CSO to move towards regular data collection through smaller surveys to enable CSO to provide up-to-date information on socio-economic and demographic topics by filling some of the current data gaps which this assessment recognized, namely vital statistics and statistics on the labor market (supply and demand side).

We further recommend improving enterprise data to progress National Accounts by launching surveys mainly in construction, trade, transport and private services. We therefore suggest that CSO launches a statistical business register including all relevant statistical units of a certain size for which a new round of the Business Establishment Survey could be the starting point. Primary data collection is challenging and should be undertaken by the specialized FOD, who have acquired these skills over the past decade with support from international partners, irrespective of whether social or economic data are collected.

Secondary Statistics. The most important secondary economic statistics are external trade statistics, which are based on micro data on imports and exports from the customs authorities. Even though the classification of the goods follows the Harmonized System of the United Nations, almost half of all imports are classified as "others" which impedes on the usefulness of the results. We therefore recommend CSO to work closely with the customs authorities to more effectively collect data to enable a re-classification of "other" goods into the standardized categories. Furthermore, CSO currently collects secondary economic statistics on "Government Finance Statistics". We recommend for CSO to capture *all* secondary data related to figures provided by MoF, by the Municipality of Kabul, and the municipalities of provinces and publish the GFS data in a separate format (outside the Statistical Yearbook).

Other Statistics. National Accounts, the genuine source for macro-economic analysis, should be given the coordination and presentation (if cross-cutting) of *all* economic statistics at CSO, including report writing and analysis. Moreover, we recommend for CSO to produce a regular publication on the results of the National Accounts, independent of other economic statistics.

Especially the secondary data collection suffers from poor coordination of statistical activities and harmonization (of concepts, definitions, and indicators) between the CSO and line ministries. We strongly recommend CSO to more effectively engage with ministries to fulfill its role as the coordinator of statistical activities in Afghanistan by (i) working closely with ministries in the implementation of surveys of other line ministries; (ii) ensuring there is no redundancy and waste of

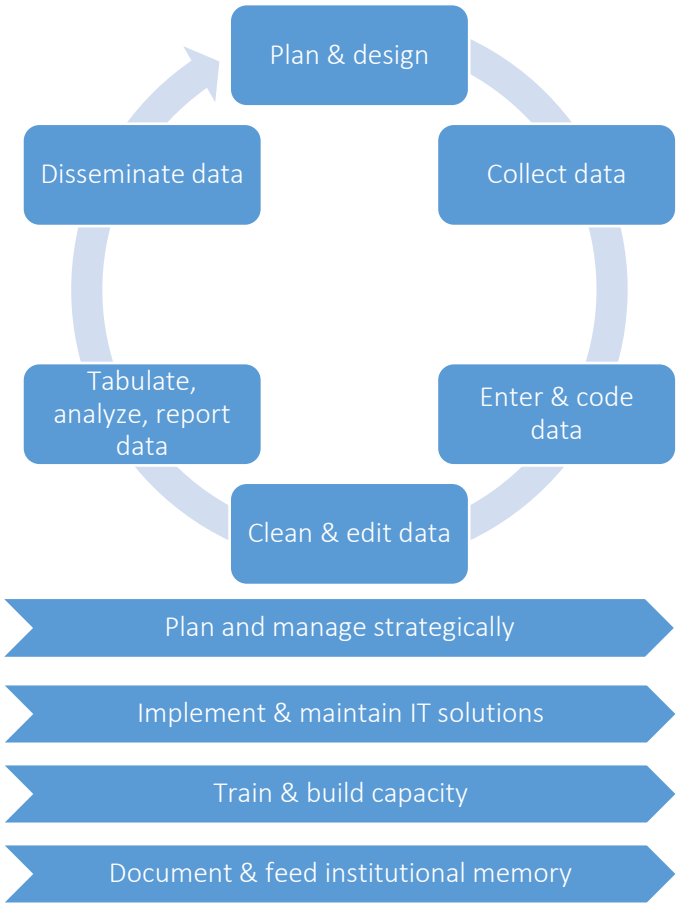
resources; (iii) improving the quality of data and used classifications; and (iii) improving data sharing between CSO and ministries.

4. CSO's processes

4.1. Overview of processes

Like any other Statistical Office, the CSO has a certain range of internal processes which are dedicated to their core business of producing statistics (collecting data, cleaning and processing data, and disseminating data) and to the activities necessarily related to them (supportive or administrative in character). The processes at CSO are summarized in Figure 4.1.

Figure 4.1: Overview of CSO's products



Most of the processes at CSO are directly related to the production of statistics and are often performed in so-called silos, indicating that most, if not all, activities and tasks for a product are performed by one single—or two—department(s). This results in the replication of the whole or part of the production process and all the necessary functions to complete a statistical product across the organization without synergies and cross-fertilization of learning as each product must possess all the expertise to produce statistics.

On the other hand, one could organize the production of statistics around functions and processes, rather than departments. This means that specific tasks (or sub-processes) are assigned to a specialized unit whose sole purpose it is to perform the given activities but not only for one department but for all departments who undertake the same or a similar process. The striking and well-known example for it is an IT-Department. A structuring around processes offers the advantage of providing a more specialized and professional environment for the production of statistics where the core of the job is contributing to a production chain rather than providing a product per se.

In the case of primary social statistics, most, if not all, survey activities are performed by the Field Operations Department (FOD) of CSO, excluding subject-matter departments from survey design, user needs identification, or analytical activities that should fall under their responsibility.

In the case of secondary statistics, silos are also prevalent, including the isolated production of data and little cooperation in the analysis of them. There is also a lack of harmonization in the level of

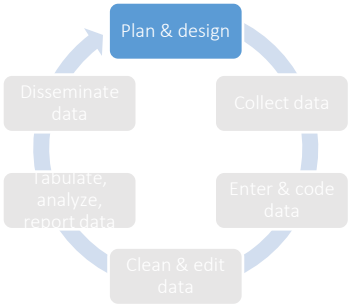
granularity, periodicity, and disaggregation of data provided by ministries. It seems that each department or unit sends their own data transmission request without a harmonized template including agreed upon specifications to their corresponding ministry.

To prevent silos, we recommend several changes in how core and support processes could be more effectively implemented, given the current institutional structure. Based on these recommendations, section 5 discusses the impacts of changes in the processes on the institutional structure.

4.2. Core and cross-cutting processes at CSO

Core processes

Plan and design

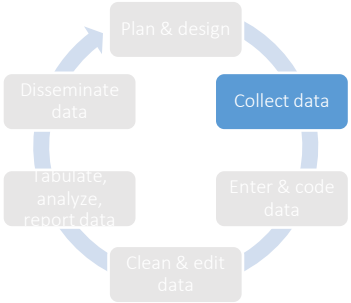


Sampling and survey methodology and design are currently performed at the FOD, yet, without a separate unit, clearly defined responsibilities, and staff. Given the importance of survey methodology and design for consistent application of standardized approaches with high-quality, we recommended, as mentioned above, to create a survey methodology unit within FOD to replace the currently scattered sampling and survey design units. The survey methodology and design unit would cover sampling, survey design, and act as service provider to subject matter departments of CSO as well as to ministries or third parties requiring CSO's assistance. The responsibility would not only include area sampling (which is the predominant sampling method at CSO) but also sampling based on list frames, which may be relevant if CSO launches a statistical business register.

At present, the planning department coordinates strategic planning, guided by senior management and the Technical Committee. The follow-up activities of the planning process are essentially focused on the monitoring of deadlines in conformity with action plans and publication dates, which are set according to the dissemination plan and the data release calendar. We acknowledge that CSO's planning has to cope with a challenging environment in which data collection for surveys or secondary statistics is often hindered by security or accessibility issues which results in unforeseen delays. Thus, work plans and publication dates have to be revised and updated during the process. Another aspect of adjustments to the planning is just-in-time policy priorities which may require CSO to undertake analysis which was not planned for. We therefore recommend that CSO closely monitors, follows-up on activities, and revises its strategic plan whenever necessary. We further recommend extending the mandate for planning beyond publication dates and data dissemination by strengthening aspects of the strategic planning process which define a strategy rather than simply following up on deadlines of the production routines of well-established products, such as:

- Strengthening the relationships with line ministries who are data providers but potentially also data users;
- Guiding the implementation of modern IT tools;
- Actively shaping CSO's custodianship for the monitoring of the SDG indicators;
- Extending the scope of the National Accounts;
- Establishing list frames for urgently needed business surveys (establishing a business register);

Collect data



Data collection is divided into data collection for primary and secondary statistics as the way data are collected are distinctly different.

Primary data collection

To collect primary data, CSO typically undertakes surveys which are, as far as social statistics are concerned, undertaken by the FOD. The FOD is tasked with large parts of the survey design, sampling, field staff recruitment, training, checking, processing and, more often than desirable, analysis of survey data. In turn, Provincial Statistics Organizations (PSOs) are largely performing support tasks to field operation but are not directly under the responsibility of the FOD. Moreover, albeit as a task of smaller extent, PSOs are collecting data for price statistics and for some regular economic surveys such as manufacturing production or construction.

We recommend that the FOD's responsibility around the operational aspects of survey implementation, including survey design and sampling, remains intact but to move data cleaning, checking, processing and analysis to subject-matter departments. To enable direct reporting and stronger quality control, we further recommend moving PSOs under the responsibility of the FOD.

Secondary data collection

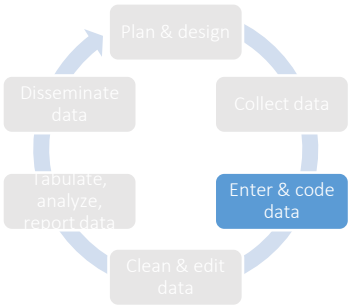
To collect secondary data, good collaboration with ministries is crucial for an effective and efficient exchange of data. CSO's collaboration with ministries, however, is currently limited. Communication with ministries often does not happen on an inter-personal level but rather through official data transmission requests sent to the ministries or vice versa. This assessment has looked into different options of improving the current model of interaction and has defined three viable alternatives to strengthen cooperation, each with different processes, impact, and time horizon.

1. The first option envisions the installation of CSO staff in the statistical units of all ministries with the clear responsibility to gather data and perform ad-hoc analysis for their host ministry on behalf of the CSO. This option, though relevant, could only be implemented in the very long-run as many institutional hurdles and resistance are at stake. Embedding CSO staff in ministries is also risky if staff are not well trained as they may not lift CSO's reputation. This option would further require a long time to implement as necessary skills as CSO would have to be trained to fulfill the role of micro-integrators in the ministries. As mentioned, resistance from ministries is likely but without acceptance of embedded staff within ministries, this model will likely not show desired results. Much time would be required for CSO and the ministries to nurture sufficient technical cooperation for this model to operate smoothly across the whole government.
2. The second option envisions the development of a data center hosted by CSO, as was also recommended in the ANSP 2010, that would serve as a data hub allowing electronic data transmission from ministries to CSO. Data transmission would follow a template provided through the system which would allow for harmonized specifications and guidelines. The option of installing a data center with two-way communication from the ministries to the CSO and vice versa would not only allow CSO to access administrative data directly but would allow ministries to directly access and tabulate aggregated CSO data without the need for an official data request. The data center could be set up in a read-only access or—in select cases—could allow active updates, as well. We believe setting up a data center is realistic in

the medium- to long-run but not in the short run. The establishment of a data center requires that: (i) huge investments would be made in the set-up of the data center; (ii) technical capacity has to be built to run and maintain such systems (on both, the ministries' and the CSO's side); (iii) sufficient annual operation costs have to be budgeted to maintain the data centers; (iv) the cooperation between CSO and ministries has to be strengthened on a technical and managerial level; (v) systems and data infrastructure across ministries has to be harmonized; and (vi) capacities for data users have to be built on both sides. A data center was included as one of the components of the SRF project but, due to project closure, was never implemented. Some details of this component of the project are included in Annex 5: Data Center at CSO including specifications and requirements which could be incorporated into CSO's decision making.

3. The third and more feasible option given the technical, institutional and financial constraints, envisions an ad-hoc electronic data sharing between line ministries and the CSO, rather than sharing of aggregate numbers in paper-format and pre-defined forms, which is currently the case for some secondary data collections. This requires improving the working relationship of ministry and CSO staff at the technical as well as the management level. This can be achieved through the creation or the reinforcement of thematic working groups of technical staff as well as regular direct communication of management staff. A closer collaboration at the technical level would allow ministries and CSO to express data needs as well as to define clear requirements for data transmission. The working groups could also define data transmission protocols, timelines, and standards which would not only allow for a more effective transmission of data but would build understanding on both sides. This solution is believed to be necessary in the short run, irrespective of whether option 1 and 2 are implemented. Though not easy, this option is faster, less costly, and less complex, to implement and could pave the way for implementing the data center presented in option 2 above. We therefore recommend for CSO to start engaging with ministries on secondary statistics to develop (i) stronger interpersonal relationships with ministerial staff at a technical and managerial level; (ii) a clear understanding of CSO's role and contribution to ensure higher data quality; (iii) develop protocols for communication; (iv) schedule regular and frequent interactions with ministerial staff at all levels; and (v) develop agreements and protocols for regular data sharing. CSO could start to enhance collaboration with one or two ministries which are strategically important (i.e. MoEc, MoF) in the short time (i.e. next 6 months) to pilot tools and different ways to engage with ministries. Once CSO has developed a clear sense of different engagement models, CSO could extend this collaboration to other ministries in the medium term (i.e. next 2 years) and organizations outside the government (i.e. universities and other data users) in the long term.

Enter and code data



Data entry and coding for primary social statistics are currently performed in within the FOD while data entry and cleaning for some primary statistics (i.e. CPI) is in the hands of the statistics sections. Centralized data entry and coding could lead to inefficiencies as data entry of small volume survey could better be performed by subject-matter department as they are the specialists to code, edit and clean the data in a holistic approach which allows them to drive the workflow and take responsibility for the results. Nevertheless, for large scale

surveys such as the DHS, SDES, ALCS, or BES, mass data entry of the first round of data should remain with well trained staff in the data entry unit as they can do it more quickly and efficiently. We therefore recommend having small scale data entry performed by subject-matter departments and large-scale data-entry by the central data entry unit as it is more efficient for subject-matter staff to do data entry for a small number of data, especially if complex coding is involved.

The process for coding data should be defined at the survey design phase. The data-entry unit is able to code standardized classifications and categorical variables with few modalities. For more complex classifications such as International Standard Classification of Occupations, International Standard Industrial Classification or ISCED, the coding should be done by the related subject-matter sections where staff should be more versatile with the classification of occupations or economic activities.

Clean and edit data

Cleaning and editing data is a process aiming at detecting and erasing implausibility in the data. Implausibility may take the form of figures which are out of a range of foreseen values of qualitative variables or a combination them or which—in case of quantitative variables like revenues or investment of companies take values which are perceived as "outliers" in the range of possible values and are thus suspects of being mistakes of reporting or of data entry. In the best-case scenario,

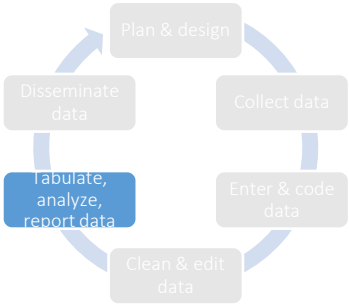
- the cleaning of the data is completed by staff versatile with the topic under investigation;
- the data entry of the correction is completed in combination, at the same time, and by the same person undertaking the cleaning;
- the cleaning and the data entry are supported by a software which identifies implausibility and outliers and which also enables these checks not only within the same data set but also in combination with other data sets of the same or of a previous survey (and even provides proposals for corrections or estimates in case of unit non-response);
- the software allows simultaneous data entry by several staff using real time correction mode, supported by a client-server application.

We recommend specifying the plausibility checks along with the design of the questionnaire and the selection of the other components of software to be used. Software customized for this process, especially if the respective data are masses or come in repeatedly, is highly recommended. In the middle and long run, the client-server application should be the norm at CSO. It will follow the trend of statistical offices that the old-style fragmentation of production into various batch mode steps on main frame computers are replaced by holistic work approaches where all steps of statistics production are united in only one section or even only one person (IT resources permitting).

Tabulate, analyze, report data

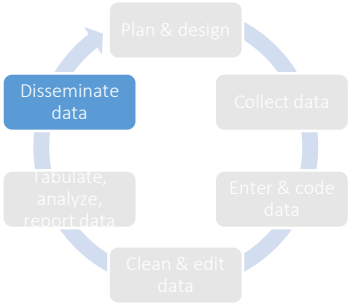
Currently, methods and analysis for household surveys are attached to the FOD and not the social statistics department. For economic statistics, the methods and analysis are within the Economic

Statistics Department while the National Accounts Department is responsible for all aspects of the National Accounts and the Consumer Price Index.



Striving for stronger harmonization and effectiveness as well as stronger conceptual responsibility of the System of National Accounts, we recommend that the National Accounts Department becomes responsible for methods and cross-cutting analysis of economic statistics at large (including report writing) whereas the same holds for Social Statistics Department on behalf of social and demographic statistics at large, taking over part of it from FOD.

Disseminate data



Dissemination of data is a process which, in principle, starts with the design of a survey. Prior to any design of a questionnaire the statisticians have to know the needs of the users and have to design the tables they want to get as a result. In planning the tabulation program, it is advisable to design the scope and presentation of data in the envisaged publication, including the necessary data. The plans of the statistics department may or may not coincide with the ideas of the Technical Committee, the senior management, or the Data Dissemination Department (DDD). In any case, reconciliation across them matters.

The DDD is currently responsible for the physical production and distribution of hard copies of CSO publications, responding to data requests from users, including aggregated secondary or primary statistics as well as for granting access to the survey micro data. The department is following the philosophy applied by many other statistical agencies, often called "one face to the customer" which means that most customers/data users are directly served by the DDD which serves as CSO's sole focal point for data requests.

Data dissemination is at the end of the process of producing statistics. Nevertheless, reactions from users early on in the process may give relevant hints for improvements of statistics. In some cases, the "one face to the customer" philosophy must not withstand DDD's mediation between important users, such as ministries or researchers, and the statistics department to ensure that the statistics department can get direct feedback from them and learn for further improvements of its products. An example of such collaboration is the recent engagement of CSO with the University of Kabul to set up a joint research center where CSO will make data available to researchers and the university will assign students as assistants for research projects. We further recommend engaging in greater outreach activities of available data to ministries, which could enhance the use of CSO data by ministries. Many of the Policy and Planning departments are not aware of data available at CSO and ministries seem to lack the "reflex" to approach CSO to fill their data gaps. They often rather approach donors instead.

The two most important regular channels of data dissemination are the Statistical Yearbook and CSO's website. Given the importance of these dissemination methods, we undertook a close examination of these products and have the following recommendations:

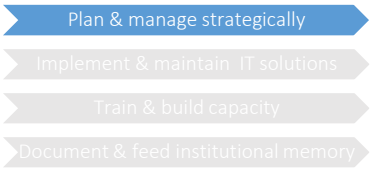
Statistical Yearbook. Publishing results is crucial for a statistical organization and the Statistical Yearbook is currently the flagship publication of CSO. Despite its valuable information, it sometimes

lacks focus and harmonization. For example, the quality of reporting varies widely across the publication as each subject-matter department produces its own section and results are often not harmonized. Not every single statistic that CSO produces necessarily has to be included in the Statistical Yearbook. Rather, we suggest to critically inspect the target group of the Yearbook and think about producing a more focused and targeted Yearbook (reducing the length and detail of some tables) including meta data. More specifically, statistics on Government Finance Statistics and National Accounts could be presented through individual publications where one is less restricted to a specific format which would allow ample space for all necessary metadata and a narrative to provide more detailed analysis. On the other hand, the yearbook misses some vital information on social statistics such as information on the labor market due to a lack of data except those collected through the ALCS. Furthermore, the number of tables available to users in excel formats is rather limited compared to the number of tables available in the publication. We recommend for CSO to review the Statistical Yearbook and to consider producing separate publications for some of its content as well as to focus on providing added-value to the data in Afghanistan.

Website. CSO has a website which is mainly focused on outside users of Statistics, presenting facts and information. The CSO has recently engaged in improvements such as providing data in Excel format rather than pdf which allow users to directly use CSO statistics for further analysis. However, important improvements remain outstanding such as providing indicators readily available in survey reports, i.e. ALCS and DHS, in easy-to-use Excel spreadsheets. Furthermore, in the medium term, the website should enable users to retrieve data through an online portal (presently partly enabled through AfghanInfo which is, however, outdated and not very user-friendly) and for data transmission by respondents or providers of secondary data.

Cross-cutting processes

Plan and manage strategically



Strategic management includes the formulation and implementation of the medium and long-term goals and initiatives to achieve those goals undertaken by top management. Implementation plans should be based on resource considerations and an assessment of the internal and external environments in which the organization operates. Given the challenges in the country for producing reliable statistics, senior management faces many challenges and CSO needs good strategic management. We perceive that CSO is often reactive rather than proactive as many of the past plans and policies were not implemented successfully or only half-heartedly, following donor requirements, rather than seeing it as an opportunity to receive critical feedback to revise plans.[11]

The assessment finds that the CSO's management style is based on a strong hierarchical structure and command lines that are largely top-down. We notice that, as a consequence, the heads of departments do not have sufficient authority to execute activities as mandated to them, seeking management clearance for every small activity and decision, and spend a lot of time on petty

[11] In June 2011, the United Nations Development Program (UNDP) produced a capacity development plan for the period spanning 2011 to 2014 which identified as main challenges that CSO's structure (i) is largely enforced through a "top-down" management approach ; (ii) is organized largely in silos; and (iii) does not possess the features of a learning organization. The capacity development plan recommended that CSO adopts a different management style that could be more conducive of the learning organization principles which was defined as an organization "where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (UNDP, 2011).

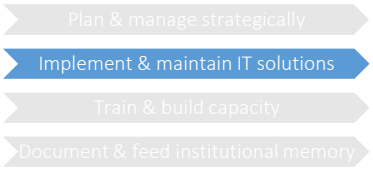
administrative issues. On the other hand, we observe that the heads of departments and sections often refrain from dealing with technical details of statistics of their realm, possibly perceiving this as not compatible with their supervisory role as heads of department. Moreover, the current organization is largely based on silos whereas a systemic approach to management would be more suited for a statistical organization.

Given the current structure of the statistical system of Afghanistan[12], CSO management has to ask the question of how CSO's processes fit into or need to be reshaped to achieve strategic objectives. We therefore recommend for CSO to clearly outline (i) its role within the system; (ii) its role in improving and modernizing official statistics to remain the core of the system; and (iii) the needs for adjustments internal to CSO to tackle challenges lying ahead. We recommend for CSO senior management to engage in the following:

i. Articulate long-term vision and define short, medium and long-term goals to achieve it
ii. Clearly outline a strategic plan to implement and realize the vision
iii. Prioritize activities given resource constraints (including capacity, institutional and financial constraints)
iv. Mobilize resources from both budgetary, off-budgetary sources (donors and fees for services provided)
v. Proactively coordinate and manage donor support
vi. Enhance quality control (via internal audit and technical advisors)
vii. Improve coordination of activities, training and analysis across departments
viii. Enhance collaboration and communication with external ministries and agencies for secondary statistics
ix. Improve branding and quality of product (statistics and analysis) through a dissemination platform
x. Improve service orientation of CSO via the dissemination of high-quality products and services (sampling frame, manpower for collecting data etc.)
xi. Ensure compliance with legal requirements

Moreover, we emphasize the need to think in terms of the statistical system as a whole rather than in isolated statistics or tasks of producing them.

Implement and maintain IT solutions

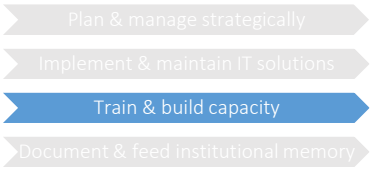


Even though evaluating the current IT infrastructure of CSO is outside the scope of this assessment, we nevertheless wanted to mention the importance of a cross-cutting process to implement and maintain IT system and solutions. CSO will have to carefully assess its needs for (i) software; (ii) a data center (and back-up data center); (iii) IT framework to ministries' MIS systems; and (iv) remote links to PSOs.

Currently much of the IT related functions and infrastructure is housed within the FOD. However, to focus on FOD's strategic advantage, we recommend releasing FOD from the more IT related functions of the Geographical Information System (GIS) and Database sections to allow the department to really focus on survey methodology, field operation, and its related functions, which are at the core of the department.

[12] As outlined in Annex 1: The Statistical System of Afghanistan.

Train and build capacity



One important aspect of improving CSO's effectiveness is to build technical capacity related to data collection, compilation, analysis, and dissemination. One of the main findings of the institutional assessment is the need for improving the conceptual, methodological and analytical skills of CSO.

In the past, capacity building activities have largely relied on donor support focused on supporting specific CSO products or outputs, such as household and establishment surveys (DHS, ALCS, SDES, BES, etc.) and National Accounts. With the exception of trainings on specialized technical tools such as Stata statistical software package, this product-driven approach has led to the provision of capacity development efforts in silos. The only effort which aimed at improving capacity for the institution as a whole, was the AFSTAT project, which, as outlined in section 1.5, was cancelled due to numerous internal and external challenges.

The capacities at CSO in aspects related to operations (i.e. survey field implementation) are more advanced than analytical and managerial capacity in the production of statistics. Except National Accounts, there appears to be no systematic cooperation across departments. In particular, survey data are not regularly used to be reconciled with secondary data. Thinking about production of statistics as an interrelated and integrated system is not institutionalized in the CSO. For instance, data on agriculture is collected by the Economic Statistics department as well as by the ALCS, but neither team systematically reconciles the data (except National Accounts). However, absent collaboration/coordination is driven by a lack of awareness of its necessity rather than intent. It will therefore be crucial for CSO to engage in strong capacity building programs and activities to improve its technical expertise and organizational capacity.

Data are not systematically cross-fertilized across different units or departments. Administrative data is reconciled with survey data or business statistics with social statistics, only in a few cases. Only the National Accounts department regularly interacts with other departments, particularly with economic statistics and social statistics.

Similarly, training activities are often perceived as isolated activities by departments and staff, thus there is little spill-over to other staff or forming a stronger working environment. Sometimes, in the case of software training, participates are not able to apply their learning because either the software is not available in the department or is not regularly used in day-to-day activities. Experience from the ALCS shows[13] that capacity is best built through on-the-job training, supported by targeted classroom training in an environment where participants can benefit from each other's experience and knowledge. To achieve sustainable results, trainings must translate immediately to the day-to-day activities of the participants thereby enabling participants to apply and consolidate their learning.

Analysis goes beyond the ability to use a statistical software to generate summary statistics or apply more sophisticated statistical techniques. It involves a broader set of skills including inspecting and transforming data with the objective of discovering interesting or useful information which can be used to draw conclusions, and support decision-making. An effective way to deliver capacity building in statistical analysis is through "action learning" organized over a two-year time span for each thematic area (see Annex 6: Action Learning Approach).

[13] Please refer to Annex 3: Good practices and lessons learned through the ALCS from 10 years of ALCS implementation.

Effective analysis involves knowledge of the context. For example, statisticians working on statistics of health, education or construction, should be conversant with the overall situation of these domains in the country. At minimum, they should know the definitions of associated variables and their meaning. Staff working on construction, for example, should know the relevance of sub-contracting in this business, the main structure of the production cycle, as well as its inputs. Moreover, subject specialists should know the relevance of indicators pertaining to the subject for the overall business cycle and GDP. In general, CSO should strive for a good mix of experts of the statistical domains and of statisticians by education.

Besides understanding complex subjects that data are intended to highlight, analysis also involves conveying the meaning of the observed data to potential users. This involves writing skills, that is almost impossible to teach in a few classroom sessions. However, capacity building could be provided for producing tables, charts and graphs with visual appeal for the potential users.

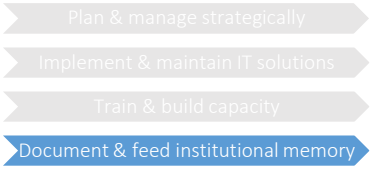
Table 4.1 highlights capacity gaps in the technical verticals along their three core functions – production, service delivery and analysis.

Table 4.1: Technical capacity gaps of CSO staff

DEPARTMENT/ FUNCTIONS	GAP IN PRODUCTS AND QUALITY	CLIENT ORIENTATION	ANALYSIS
FIELD OPERATIONS DEPARTMENT	Lack of sufficiently trained personnel ("deep but thin")	Coordination with PSOs	
	Number of staff with capacity in survey sampling	Providing sampling and survey design services for third party surveys	
	Number of staff with capacity in survey design		
ECONOMIC STATISTICS	Absence of harmonization of economic variables in terms of definitions and classifications	Sounding out user needs and seeking the dialogue with them	
	Lack of empirical evidence to estimate input-output ratios	Enhancing number of specific publications, e.g.	
	Estimates are lacking to fill data gaps, e.g. livestock	Building full-fledged Government Finance Statistics with publications	
	A statistical business register is lacking, which could be developed based on the BES data and other primary statistics		
	Production indices for selected manufactured goods are lacking		
	Unit value indices of imports and exports need to be improved		
	Indices for imports and exports in current and in constant prices (using unit value indices) are lacking		

	Absence of small, regular and sector-specific economic surveys, e.g. construction, manufacturing, transport, telecommunication, private services		
SOCIAL STATISTICS	Demographic and population projections are lacking	Sounding out user needs and seeking the dialogue with them	Development of multi-source analytics
	No repository of methods and methodologies	Provision of bespoke analysis on social thematic areas to ministries	Transfer of survey analysis
	Production of metadata		
	No vital statistics		
	Labor statistics need to be improved		
NATIONAL ACCOUNTS	Gaps exist in the compilation of GDP	Sounding out user needs and seeking the dialogue with them	Use of SUT for reconciling GDP
	Supply-and-Use tables are based on small number of columns (uses)	Develop specific publication for NA	Quarterly analytical reports on GDP
	Data not reconciled with the central bank and UNODC (Opium)		Macro-economic monitoring reports
	Institutional sector accounts are not compiled		

Document and feed institutional memory



Full documentation of operations is essential for the credibility of the data and the legitimacy of CSO as a producer of data. Systematic and full documentation of all processes, tasks and activities should be mandatory across the whole organization. Currently, limitations exist in understanding the need for documentation as well as the capacity to document according to international standards.

Furthermore, to critically evaluate statistical outputs is crucial in further improving quality and content of produced statistics. Evaluation is closely related to quality management and process management and the absence of a suitable evaluation function is connected to the absence of a quality framework, systematic process monitoring, and regular reporting of activities and progress.

4.3. Recommendations on processes

Based on the description of processes above, we summarize the recommendations to CSO as follows.

Sampling and survey methodology and design are currently performed at the FOD, yet, without a separate unit, clearly defined responsibilities, and staff. Given the importance of survey methodology and design for consistent application of standardized approaches with high-quality, we recommend creating a survey methodology unit within FOD to replace the currently scattered sampling and survey design units. We further suggest putting in place a system to monitor, follow-up on activities, and

revises its strategic plan whenever necessary by extending the mandate for planning beyond publication dates and data dissemination through strengthening aspects.

Concerning primary data collection, we recommend that the FOD responsibility around the operational aspects of survey implementation, including survey design and sampling, remains intact but to move data cleaning, checking, processing and analysis to subject-matter departments. For secondary data collection, we recommend the CSO to improve the process of collecting secondary data. In the short-run, we recommend for CSO to start engaging with ministries on secondary statistics to develop (i) stronger interpersonal relationships with ministerial staff at a technical and managerial level; (ii) a clear understanding of CSO's role and contribution to ensure higher data quality; (iii) develop protocols for communication; (iv) schedule regular and frequent interactions with ministerial staff at all levels; and (v) develop agreements and protocols for regular data sharing. The option of installing a data center with two-way communication from the ministries to the CSO and vice versa is realistic only in the medium- to long-run. The data center would not only allow CSO to access administrative data directly but would allow ministries to directly access and tabulate aggregated CSO data without the need for an official data request. The data center could be set up in a read-only access or—in select cases—could allow active updates, as well.

To improve the data entry and coding process, we recommend having small scale data entry performed by subject-matter departments and large-scale data-entry by the central data entry unit as it is more efficient for subject-matter staff to do data entry for a small number of data, especially if complex coding is involved.

To clean and edit data, we recommend specifying the plausibility checks along with the design of the questionnaire and the selection of the other components of software to be used. To disseminate data, we recommend engaging in greater outreach activities of available data to ministries, which could enhance the use of CSO data by ministries. Many of the Policy and Planning departments are not aware of data available at CSO and ministries seem to lack the "reflex" to approach CSO to fill their data gaps. They often rather approach donors instead.

Dissemination: suggest to critically inspect the target group of the Yearbook and think about producing a more focused and targeted Yearbook (reducing the length and detail of some tables) including meta data.

We further suggest to critically inspect the target group of the Yearbook and for CSO to think about producing a more focused and targeted Yearbook. The website is a primary vehicle to dissemination CSO data. Yet, important improvements remain outstanding such as providing indicators readily available in survey reports, i.e. ALCS and DHS, in easy-to-use Excel spreadsheets. Furthermore, in the medium term, the website should enable users to retrieve data through an online portal and for data transmission by respondents or providers of secondary data.

Given the challenges in the country for producing reliable statistics, we recommend for CSO management to more effectively engage in strategic management activities. Given the current structure of the statistical system of Afghanistan, CSO management has to ask the question of how CSO's processes fit into or need to be reshaped to achieve strategic objectives. We therefore recommend for CSO to clearly outline (i) its role within the system; (ii) its role in improving and modernizing official statistics to remain the core of the system; and (iii) the needs for adjustments internal to CSO to tackle challenges lying ahead.

Providing the enabling IT infrastructure is crucial for any process to be effective. Most of the IT-related functions are currently carried out by FOD. We recommend releasing FOD from the more IT

related functions of the Geographical Information System (GIS) and Database sections to allow the department to focus on survey methodology, field operation, and its related functions, which are at the core of the department.

Full documentation of operations is essential for the credibility of the data and the legitimacy of CSO as a producer of data. Systematic and full documentation of all processes, tasks and activities should be mandatory across the whole organization. We recommend for CSO to overcome existing limitations in understanding the need for documentation as well as the capacity to document according to international standards.

To overcome limitations in current capacities and enhance efficiency and effectiveness, we recommended for CSO to develop concrete policies and implementation plans aiming at improving the organizational structure and human resource framework. We recommend prioritizing the following areas of capacity building in the next three to five years:

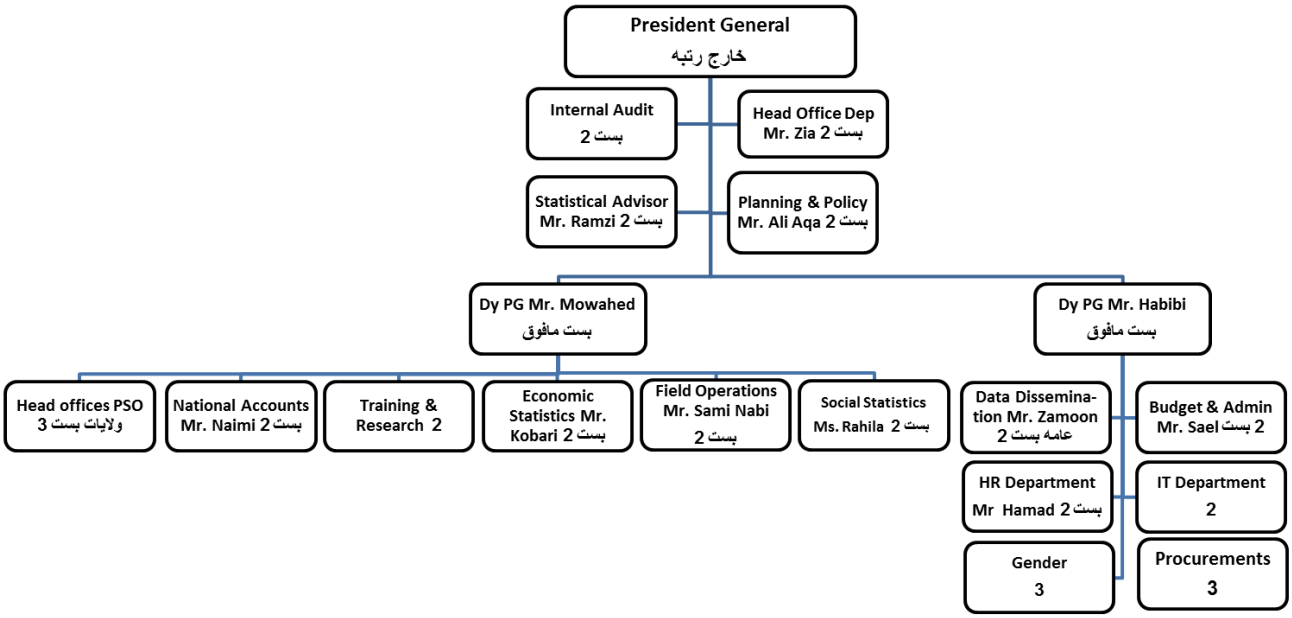
- Strengthening organizational structure. To implement a reform agenda and move CSO towards becoming a modern and responsive statistics agency, we recommend improving CSO's strategic and planning capacity by creating a (or revising an existing) plan of institutional mid and long-run strategy and annual work plans and monitoring mechanisms. This includes the preparation and implementation of a capacity building development plan for all technical staff.
- Enhancing management and technical skills. To (further) improve technical skills, we recommend implementing strong capacity building and training plans with long-term engagements in all areas of CSO, not just those supported by donors. These plans need to focus on learning-by-doing approaches, supported by coaches and experts and based on training needs assessments. For the managerial staff, we propose to combine learning by doing in local workshops and seminars with potential users and/or journalists where the CSO managers will be challenged to explain their concepts, methods and techniques vis-à-vis a critical audience and where they are forced to get skilled in making propaganda for high-quality statistics.
- Strengthening donor relations. To achieve CSO's objectives and to ensure CSO receives sustainable funding and technical support in the coming years, we recommend engaging in building stronger relationships with donors, implement a donor coordination unit at CSO which manages the engagement and ensures follow-up activities are undertaken.

5. CSO's structure and staffing

5.1. Current organizational structure

The present structure of departments at CSO is displayed in Figure 5.1. It shows 14 departments plus a Technical Advisor. Six administrative departments are under the supervision of Deputy President General Mr. Habibi. Three statistics departments (National Accounts, Economic Statistics, Social Statistics); Field Operations Department; Training & Research Department; and the Provincial Offices are under the supervision of Deputy President General Mr. Mowahed.

Figure 5.1: Organizational chart of CSO



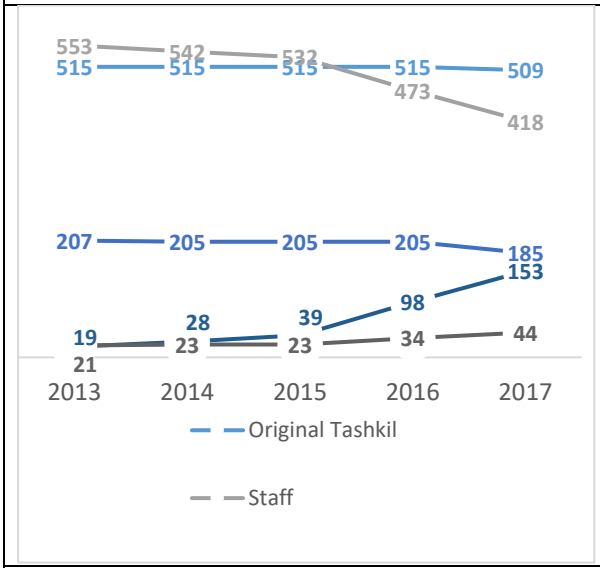
Source: Information provided by HR department of CSO.

5.2. Current staffing and challenges

The largest challenges in current staffing are (i) low technical capacity; (ii) low pay which results in a low retention rate; and (iii) a challenging hiring process through the civil service commission.

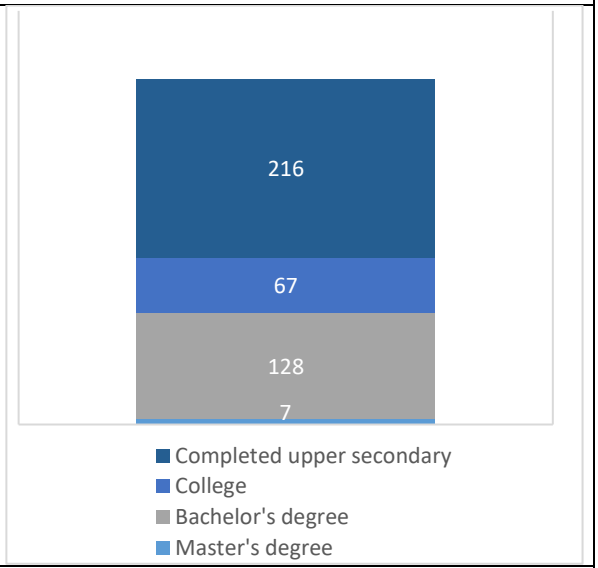
In 2017, CSO employed 418 staff employees and 185 service personnel while the Tashkil includes 509 staff for CSO. The number of employees at CSO has decreased drastically in past years while unfilled positions have, naturally, increased (Figure 5.2). Educational attainment of CSO's technical staff is relatively low, of the 418 technical staff, only about one third (135 staff) has a university degree (Figure 5.3). While this does not necessarily translate to low technical capacity, it shows the need of CSO to heavily invest in capacity building initiative as most staff is not trained for their profession through the formal education system. This lack of formal training further points to a challenging environment in terms of providing technical capacity through capacity building initiatives which will often have to start from a very basic level.

Figure 5.2: Number of staff and service personnel at CSO, 1393-1396



Source: Information provided by HR department of CSO.

Figure 5.3: Number of technical staff at CSO by educational attainment and sex, 1396

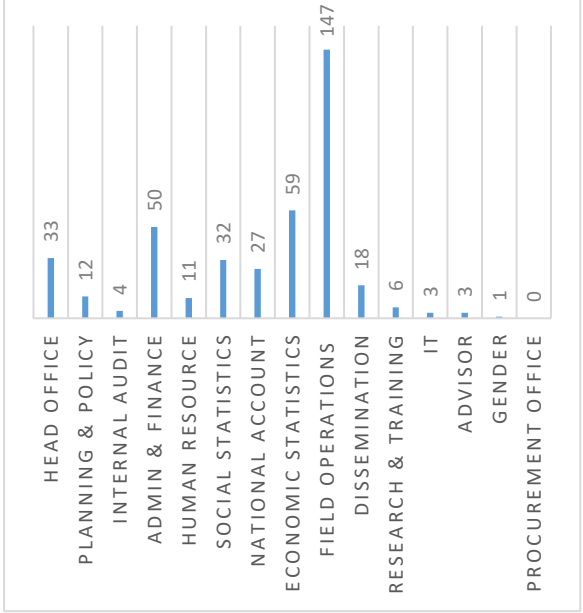


Source: Information provided by HR department of CSO.

Typically, statistical offices employ more technical staff compared to service staff. However, CSO's number of staff is tipped in favor of staff undertaking administrative functions. Of the 406 staff at the head office in Kabul, over one third (147 staff) are engaged in FOD (Figure 5.4). Less than two thirds of CSO staff in Kabul (65 percent) work in "Statistics Department"[14]. Given that the core functions of CSO require highly specialized and technical personnel, the number of staff in technical functions seems relatively low, compared to staff in administrative functions. Furthermore, relatively few staff at CSO are in higher pay grades. Almost 60 percent of all staff at CSO are grade levels 5 or 6, no staff at CSO is in the highest pay grade level 1, and only about 20 percent of staff in pay grades 2-4 (Figure 5.5). CSO staff receive a relatively low pay (see the average monthly salary by pay grade) which may lead to qualified staff not applying or low retention rates. Average salaries in pay grades 5 and 6, in which the majority of CSO staff work, is only 10,900 and 8,600 Afs per month[15]. Particularly staff with high technical skills are likely to look for better paid work opportunities, which, in Kabul, can often be found at international donor organizations which seek highly skilled local staff. Hiring staff with high technical capacities is further hindered by the fact that Article 8 of the 2008 Civil Servants Law states that a person can be appointed into the Civil Service who possesses a bachelor's degree, which few people at CSO (and applying to CSO) possess.

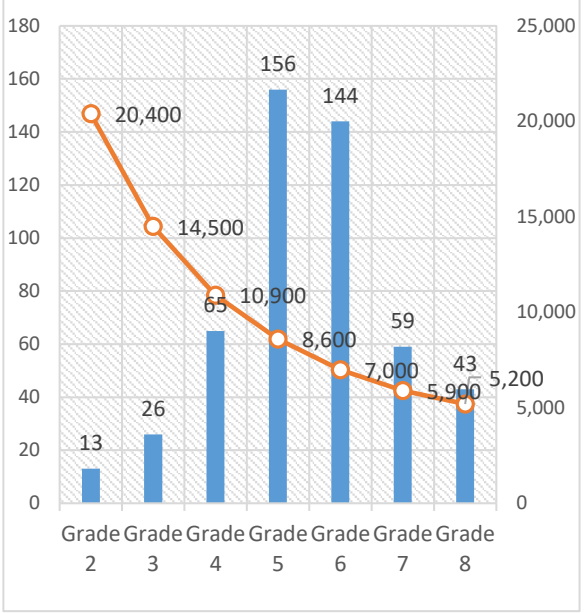
[14] Economic Statistics, Social Statistics, Field Operations, or National Accounts.
[15] The put these numbers in context, the poverty line in Afghanistan stands at about 2,000 Afs per month.

Figure 5.4: Number of staff by department in Kabul, 1396



Source: Information provided by HR department of CSO.
Note: Number of staff excludes the President General and his deputies.

Figure 5.5: Number of staff by pay grade and salary in Kabul, 1396



Source: Information provided by HR department of CSO.
Note: Number of staff excludes the President General and his deputies. Salaries are an average of the 5 steps within each grade. Number of staff do not match those in Figure 5.4 as CSO provided different HR files with different records.

Despite the urgent need for a higher number of technical staff at CSO, a challenging civil servant recruitment procedure, often through batch recruitment is in place. Between 2008 and 2015, recruitment of civil service employees was carried out by the Independent Administrative Reform and Civil Service Commission (IARCSC). In December 2015, however, the Government amended the Civil Servants Law through a Presidential Decree with delegation of recruitment authority to Line Ministries for all grades. As a result of this change, CSO now has the authority to recruit all staff, including grades 1 and 2, which were previously appointed by the Independent Appointments Board. Despite hiring authority at CSO, the IARCSC retains responsibility for the recruitment oversight and performance management of hired civil servants.

Despite considerable achievements in the recruitment process, some degree of ambiguity remains regarding the allocation of Human Resource Management (HRM) responsibilities, especially at sub-national level. Although the PSO (provincial line departments) report to the CSO which hold main management and decision-making authority over them, they are also accountable to the Provincial Governor and council, including on HRM processes. This may lead to the necessary approval of the provincial governor in the hiring of staff as well as in simple procurement processes in provincial line departments.

Human resource related constraints for capacity development

The institutional assessment identified the following major challenges for a sustainable capacity building at CSO:

- Limited educational background and technical skills of technical staff

- Lack of incentives for staff due to low salaries
- Inappropriate institutional setting to coordinate and harmonize capacity building efforts
- Lack of possibility to apply learned content in day-to-day activities

The low level of educational attainment and technical skills[16] of the staff create a large obstacle in sustainably building capacity of CSO staff. The absorption capacity in this low skill environment is rather limited and any capacity building initiative has to be set up for the long-run. This is a particularly important consideration for CSO management and donors. CSO management often sees a clear need for building capacity but does not allow enough time to fill this gap. For example, the various trainings on report writing which were requested by CSO management did not provide sustainable capacities for improving staff's capacity to write reports because participating staff (i) did not have expert knowledge in the relevant fields, as most of them lacked specialized graduate studies; (ii) did not possess the basic (English and diagnostic) skills to apply the taught content; (iii) did not engage in writing reports in their day-to-day activities; and (iv) often did not want to engage in this initiative. On the other hand, donors often come in to either fill capacity gaps themselves (i.e. hiring experts to do certain tasks where capacity is lacking) or focus on providing "quick solutions" to existing gaps without a long-term plan of engagement to sustainably build capacity.

Situations where capacity building have paid off are those where CSO management and donors engaged in a long-term approach such as capacity building for the SDES and the ALCS. This multi-year approach (due to the repeated nature of surveys) allowed for ample possibilities for CSO staff to be involved in the production of statistics in numerous engagements. On the other hand, the focus on these two products by donors concentrated training activities in one department and few staff that possessed the right absorption capacities.

The lack of coordination between capacity building efforts and the often one-off nature of the support from donors did not provide the right enabling environment for the participants to put into practice the content of the training. This owes to the time pressure of the projects that often leads to the fact that international experts take over large parts of the work to keep deadlines. In addition, the fact that products are produced only once at large time interval does not allow for gradual transfer of functions to CSO staff in the longer-term. Within social statistics, only ALCS and SDES have received long standing support allowing for such transfer of function, albeit to a limited number of staff.

Further constraints include the lack of openness to admit to the low capacity of staff from senior management. For example, training participants' skills and experiences are often very diverse (from beginners to advanced users) which does not allow for a conducive learning environment for anyone. Those without experience are always behind and cannot absorb the learned content quickly enough while those with large experience are not learning much new. Going forward, we recommend for CSO to define a long-term statistical capacity building plan in coordination with donors, taking differing skill and experience levels of staff, units and departments into account.

Furthermore, institutional constraints are also in place which hinder the achievement of an enabling environment to capacity building. Increased educational attainment and skill development during civil service is not incentivized as the Civil Service Law does not provide the possibility to promote civil servants based on the increase of skills and capacities of staff. In this regard, civil servants are not encouraged to develop their capacities.

The CSO also expressed a concern regarding the mismatch between skills and positions as, in the past, adequate skills and educational profiles were often not available but positions were still filled,

[16] As outlined in section 4.2 of this report.

blocking the possibility to recruit new staff with better skills or higher capacity. However, capacity building initiatives can be applied to those with relatively low skills by taking on a long-term view and carefully defining a capacity building initiative considering all staff's skill levels and current capacities. This may also hold for CSO staff in positions which may soon become obsolete given technological advances.

5.3. Recommendations on organizational structure

Based on results of the institutional assessment, which are laid out in detail in section 4, we recommend the restructuring of the organization which may enhance effectiveness and efficiency to implement some of the processes described above. The main consideration for restructuring are (i) the balance of technical vs. support functions; (ii) to clearly divide responsibilities; and (iii) to clearly divide functions.

The organizational chart of CSO suggests an imbalance of "technical" or statistical departments and administrative or support functions. For example, there are only three departments which are engaged in the direct production of statistics or statistical frameworks (Economic Statistics Department, Social Statistics Department and National Accounts) and only four departments which are directly supporting these statistics departments (FOD, IT, Technical Advisor, and Data Dissemination). Eight departments, however, have purely cross-cutting function or are even completely administrative in nature (e.g. Head Office, Administration and Budgeting, Human Resources, Internal Auditing, Gender, Procurement, Planning & Policy, Training & Research).

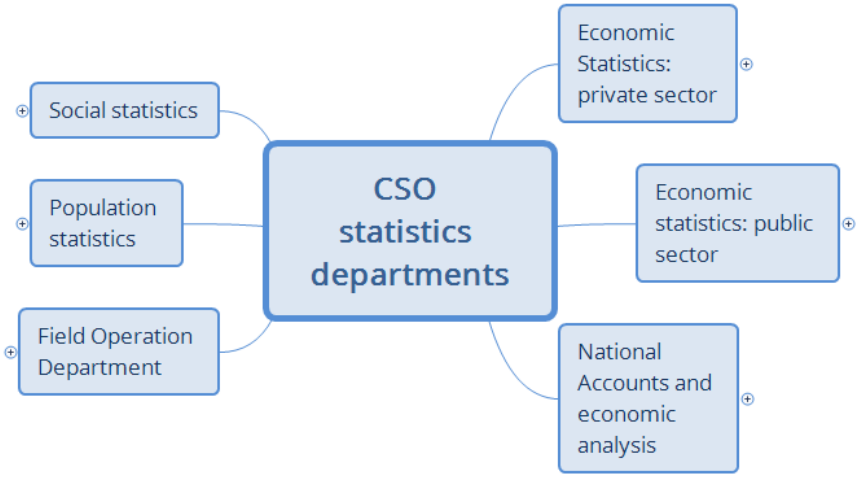
Given that the large number of departments has significant implications on budget and staffing needs, we recommend creating a stronger core to support CSO's technical work such as the production of statistics. In the short run, the size and scope of topics of these departments would shrink but in the medium to long run, these departments are able to expand the core mandate of CSO and to extend the statistical system in Afghanistan. In addition, we recommend that the competence of department heads of the statistical departments is applied to technical topics rather than managing of day-to-day routines in units perceived to be too large.

Even though this assessment focuses on the technical departments of CSO, we have a few recommendations of changes in the administrative departments. We suggest, for example, merging some of the administrative departments to support a more meaningful balance and number of staff. We recommend merging the departments of Planning & Policy and Training & Research[17]. If government-wide rules allow, we also recommend merging Gender and Procurement with the newly created department, rather than keeping them as independent, small departments. The existence of a department for internal auditing is very welcome. The structure and place within the organization, however, is somewhat uncertain given that internal auditing and data assurance may not need the rank of a department as it could be allocated to a cross-cutting department which in itself is not part of the auditing process. We therefore suggest incorporating auditing as a special section to the Technical Advisor.

We envision six core statistics departments, two of which already exist—National Accounts and Field Operations—and four departments which will be carved out of two previous departments (Economic and Social Statistics). The Economic Statistics Department can be divided into "Public sector and Registers Department" and into "Primary Economic Statistics Department". The Social Statistics Department can be divided into: "Social Statistics" and "Population statistics" (Figure 5.6).

[17] The department of Planning & Policy has only 12 staff and Research & Training has only 3 staff.

Figure 5.6: Recommended new structure of core statistics departments

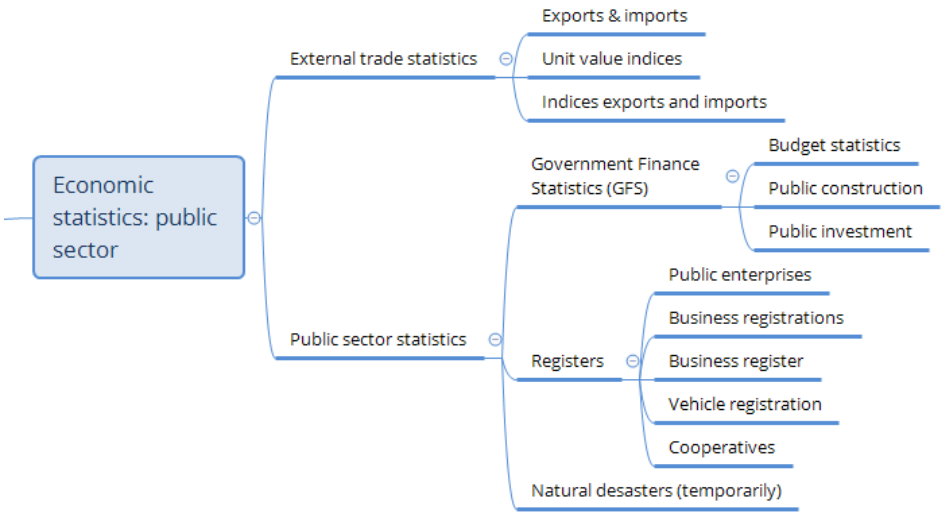


Source: Authors' elaboration.

In the long-run, with the establishment of a data center, the organization structure might need to be revisited again depending on how the IT infrastructure would be embedded within the CSO. As data collection, capturing, cleaning, and processing will be structured around a centralized IT system, the functional organization and data processes within the CSO would have to aligned accordingly.

Currently, some vital CSO functions, such as data collection through PSOs are mainly demanded by FOD, but to a minor extent also utilized by Economic Statistics Department and the National Accounts Department (price section). This can create uncertain reporting structures and blurred supervision. Similarly, the collection of data for Government Finance Statistics is partly done by Economic Statistics Department, but partly also by the National Accounts Department. We therefore recommend combining these functions and/or responsibilities which would create synergies and avoid misperceptions of a blurred distribution of responsibilities within CSO. More specifically, we suggest moving Government Finance Statistics (GFS) as a section under "Public sector Economic Statistics" (Figure 5.7). The respective staff of National Accounts (pure data collection only) could then be transferred with the data collection of GFS. Figure 5.7 shows the topics covered within GFS.

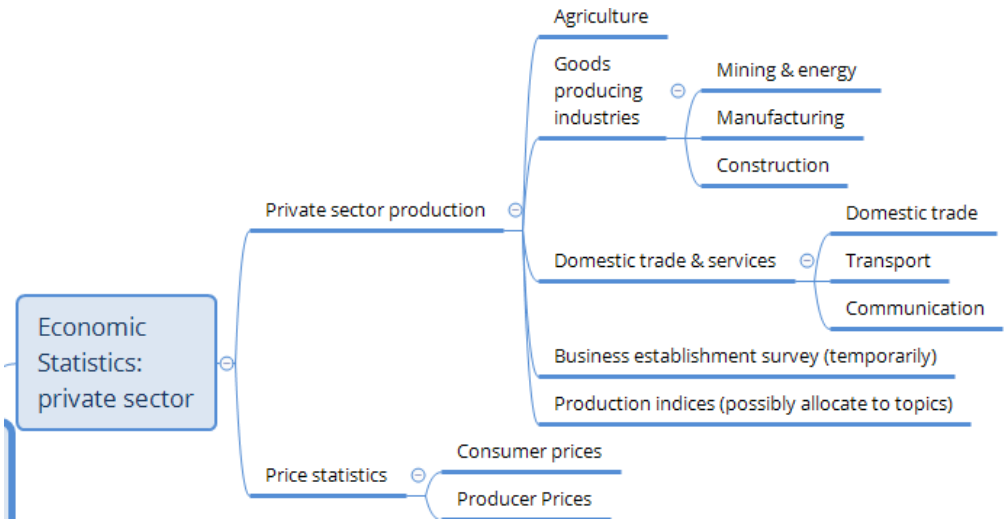
Figure 5.7: Recommended new structure of "Public Sector Economic Statistics"



Source: Authors' elaboration.

There is a need to define some of the core functions of CSO more clearly. The Economic Statistics Department, for example, blends primary and secondary statistics within the department, even though both have very different processes and activities associated with them. We recommend to structure departments by function rather than by statistical domain. In the trade statistics section, for example, external and domestic trade are in the same section, even though both are functionally completely different and the way data are collected is also very different. We therefore recommend to divide "trade statistics" and to move "external trade statistics" to the Public Sector Economic Statistics and "domestic trade statistics" to "Private Economic Statistics Department" (Figure 5.8).

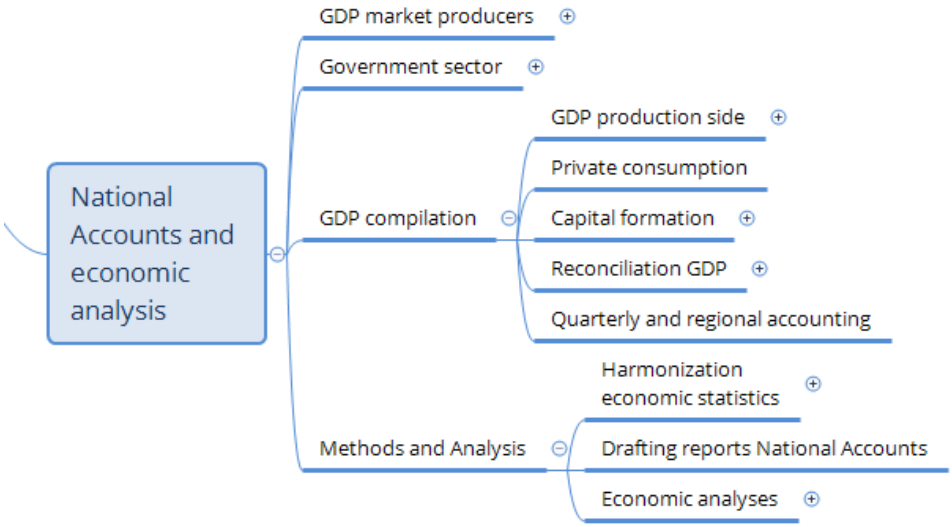
Figure 5.8: Recommended new structure of "Private Sector Economic Statistics"



Source: Authors' elaboration.

As mentioned earlier, some of the Statistics Department should have responsibility for methods and analysis they use. For economic statistics at large we recommend that the National Accounts Department would gain a section which undertakes economic analysis, harmonization of economic statistics, as well as drafting reports (which, as mentioned, could be a stand-alone publication) (Figure 5.9).

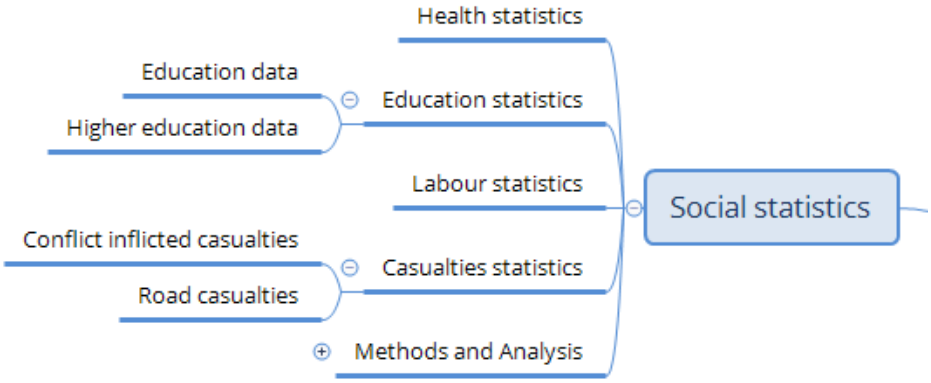
Figure 5.9: Recommended new functions of "National Accounts and Economic Analysis Department"



Source: Authors' elaboration.

Similarly to the Economic Statistics Department, we recommend to divide the Social Statistics Department into two parts to better reflect the difference in functions. Social Statistics could be divided into "Social Statistics" and "Population Statistics" and to add labor market statistics into "Social Statistics" and vital statistics into "Population Statistics" (Figure 5.10). We acknowledge that enhancing labor market and population statistics increases the burden on the Social Statistics Department, the division of responsibilities, however, seems reasonable in the suggested structure. Data relevant for population or demographic statics, such as vital statistics and migration, could be added to the "Population Statistics" department, given its importance in Afghanistan. Furthermore, we recommend providing responsibilities for methods and analysis for social statistics and for report writing with adequate staff within the Social Statistics Department, particularly in light of the cross-fertilization of social data and producing thematic analytical reports.

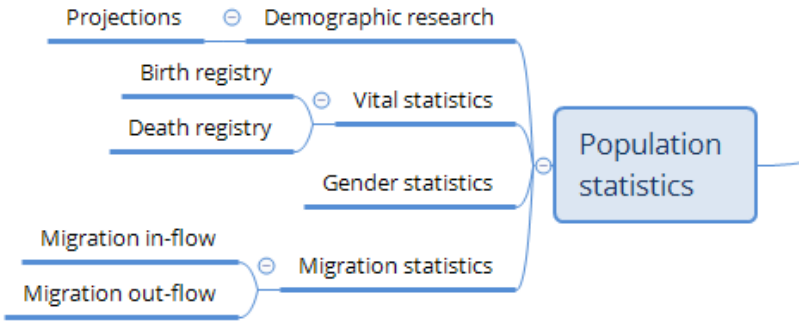
Figure 5.10: Recommended new structure of "Social Statistics Department"



Source: Authors' elaboration.

The newly formed "Population Statistics Department" would be responsible for producing statistics on population, going beyond estimating population projects, which is currently at the core of its activities. We recommend that all the aspects of population dynamics are grouped into this new department to foster a more holistic approach to population dynamics integrating vital statistics, gender statistics and migration statistics in the same department (Figure 5.11). We are aware that vital statistics are currently collected but not published due to the challenges faced by the Ministry of Interior to collect vital statistics through administrative data. We recommend that CSO undertakes investigations into a possible combination of sources and methods to produce vital statistics, at least in the mid-term to allow for the use of the cohort method in population projection in addition to other methods currently under consideration at CSO.

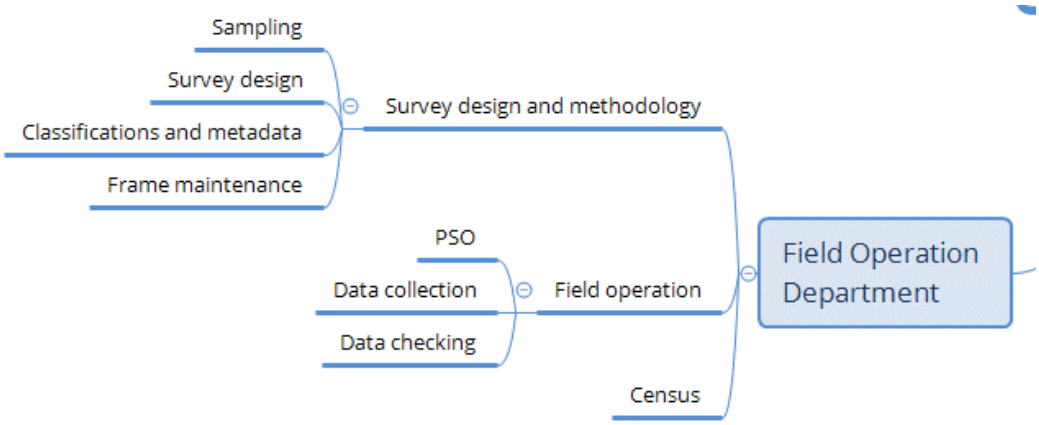
Figure 5.11: Recommended new structure of "Population Statistics Department"



Source: Authors' elaboration.

The Field Operations Department as such will remain intact, however, given the wide range of responsibilities, we suggest a few structural changes within the department. If CSO remains active in or even expands primary statistics, PSOs should be more effectively utilized to support data collection efforts in their respective provinces. Part of the data collection process could be undertaken or supported by PSOs which would, however, require strengthening capacities and specialization of PSOs into certain types of data collection. For example, data collection for the Economic Statistics Department is often conducted by the same personnel collecting consumer prices. Strengthening collaboration with PSOs can only be achieved if the functional responsibility is also placed with the department who relies on their services most frequently. We therefore recommend for the central office in Kabul to take on a stronger leadership role and responsibility in managing PSO, which could be conducted under the data collection effort of FOD (Figure 5.12). This would allow for a stronger technical cooperation and sustainably building capacity at the provincial level. In turn however, we suggest removing IT-related functions such as GIS and Database Management from FOD to allow for FOD to really focus on survey methodology, field operation, and its related functions, which are at the core of the department. IT-related functions would move the IT Department which currently only has 3 staff and GIS could be its own department (see details below).

Figure 5.12: Recommended new structure of "Field Operations Department"



Source: Authors' elaboration.

CSO has a Geographical Information System (GIS) section within FOD. GIS is essential for "modern" production of statistics and given the plans at the national level to create a National Geo-Informatics Center (NGIC) which is likely hosted at CSO, we recommend creating a separate department for GIS in preparation for the NGIC initiative. The newly formed "GIS Department" would, at the beginning, have two main functions: (i) Coordinating Body for the NGIC initiative; and (ii) GIS data and analysis.

CSO is well placed for geospatial coordination and hosting of geospatial data for many reasons. CSO's independence can ensures that an agenda to develop an effective approach for hosting and analyzing geospatial information to support well-informed, evidence-based decision making, is beneficial to the whole country. Currently, geospatial data is scattered among different ministries and often lost or stored in "silos" which limit data sharing and cross-sector collaboration, analysis and planning. As such CSO could serve as a "neutral" host of data while ministries remain responsible for maintaining and analyzing geospatial data. We think that CSO's mandate to carry out this new function has to be mentioned explicitly as it has been done, for example, with National Accounts as part of the amendment made in 2016. We have been informed that it has already been considered to change the Statistics Law accordingly.

At an early step, the biggest role that CSO can play is through coordination, largely at two main levels, executive and technical. The executive functions can be largely broken down into Policies, Regulations, and Agreements, which would be handled via the Executive Committee of NGIC. The technical function largely includes creating standard operating procedures, common data, common infrastructure, and data standards. While the creation of a comprehensive geospatial data portal is a long-term objective, the development of standard data formats would prove beneficial to eventuality ease the process and create lower cost.

GIS data and analysis specific to CSO should remain the functions it currently performs, including supporting FOD in preparing maps for data collection. However, the GIS could also increase its footprint by engaging in producing maps for teams across CSO with a better visual appeal and complexity than what is currently available. Furthermore, maps could be produced in a timelier manner to provide up-to-date information as soon as available and across different publication outlets of CSO. The Statistical Yearbook, for example, does not include thematic geographical maps. The impression is that GIS is mainly focused on supporting field operations, such as providing maps of sample units but less focused on providing analysis or services for a wider range of CSO departments. This newly formed GIS data and analysis section within the "GIS Department" is responsible for (i) routine standardized outputs; (ii) coordinating geospatial analysts (or Statisticians with GIS capabilities) across teams at CSO to facilitate direct support of research and ad-hoc production of required outputs. The GIS data and analysis section is further responsible for sharing, creating, curating, and maintaining CSO's GIS data.

6. Donor support

6.1. Donor support: Lessons learned

CSO has been supported by many development partners either financially or technically through the years. Prime among them have been the European Union, DFID, the World Bank, the IMF, UNICEF, UNFPA, USAID, WFP and UNDP besides support from other bilateral donors. Donor support has been less effective primarily due to a product-based approach to CSO activities and a lack of coordination among donors.

Firstly, donor support provided to CSO has been in silos for specific products like the BES, the national accounts, the SDES or the ALCS/NRVA. This product-oriented support has led to fragmented results, as the capacity building or technical assistance was focused around the specific products rather than around the CSO production processes at large. The focus on products was likely driven by need to enhance donor visibility and competition among donors. Since products are not only highly visible but also have a clear production lifetime relative to systemic institutional changes, they are preferred by donors, who need to justify these expenditures to their domestic audience. This product-focused approach notably for surveys, created inefficiencies in the way CSO works. Donors imposed methodologies, methods, tools and software disregarding their inter-operability across surveys and their sustainability. Consequently, in 2012 CSO had at least three different database systems, each with its own infrastructure; at least three statistical packages in use, with trainings delivered for each of them; and different methodologies, classifications and tools. Thus, CSO was unable to draw coherent technical lessons from previous experience. But most importantly it led to production of statistics that were not comparable across and within different surveys and across time.

Moreover, CSO has also viewed donor engagement as only in the form of financial and technical support to specific products. CSO has traditionally shown sensitivity to any suggestions by donors which involved improving institutional set-up, processes, and functions. The experience from the

AFSTAT project–particularly after 2013–showed that the CSO struggled to understand the very concept of a system-wide approach to statistics. In some instances, suggestions made by donors on improving processes within the CSO were not welcomed by the CSO management suggesting that they were solely in discretion of the government.

This situation ended after donors and technical advisors called for a decision from the senior management to streamline the technology architecture of CSO with a single database management system and statistical package across surveys and products. Attempts were also made to harmonize definitions, classifications and metadata, but it was less effective than the harmonization of systems and software. But some products have been supported with concern for continuity. The most continuous support has been provided to the National Accounts and the Field Operations Department through the ALCS/NRVA. Therefore, not surprisingly, these two departments have over time developed the highest level of capacities among CSO departments.

Another undesirable fallout of the product-based donor support, is that support often comes with staff incentives, such as per-diems for field missions and other tasks. This approach, while necessary under the current Tashkil, but in a low personnel remuneration environment, distorts the internal salary grid of CSO and staff incentives. Since surveys are the most expensive activities supported by donors, the FOD has received the largest share of financial and capacity building support, at the cost of other departments. Therefore, over time the FOD has emerged as an island of relative excellence, attracting even more resources from donors seeking to mitigate risks to their products thereby perpetuating the cycle of resource concentration. Not surprisingly, field operations staff end up carrying out most of the analytical tasks for various surveys, instead of staff in the subject-matter departments.

Secondly, donor support has often been fragmented with less than optimal inter-donor coordination and communication. In rare instances, lack of coordination even led to duplication in capacity building and technical assistance to CSO. It is obvious that the CSO played along to attract additional resources for its activities, given the low direct financing of CSO activities from the Afghanistan national budget. For example, the yearbook is probably the only CSO product (with possibly National Accounts) that is financed through the budget. Several other products are almost fully donor funded.

Coordination among development partners improved under the SRF, when the program became effective in 2011. But with the reduction in the activity of the SRF since 2013, coordination problems began resurfacing. It has since been bridged with the establishment of a donor coordination group. Some donors still continue to approach the CSO directly outside the donor coordination mechanism.

6.2. Recommendations for enhancing effectiveness of donor support

From the above description, it is clear that the CSO must contribute to create conditions that help change donors approach in the following manner:

1. Donors ensure that their support is harmonized and integrated with projects and activities already underway at the CSO to avoid using incompatible classifications, definitions and survey frames. This also applies to direct data collection activities, outside the aegis of the CSO. Donors must consult and involve CSO well in time, and at least use their sample frame and consult them on instrument design.
2. While planning interventions with the CSO, donors consider the timing of such interventions and assess of the current availability of capacities and the absorption capacity of staff involved so as not to `crowd-out' regular, reasonable and urgently needed activities. For instance, planned activities have in the past had to be delayed, suspended or cancelled to

accommodate donor requests that were not mentioned when data collection plan was formulated.

3. Donors have much more regular exchange of information with regard to the funding of interventions, the planning and the existing tools and methods at CSO before publishing the terms of reference for their procurement.

The suggested first step towards this end is that the CSO leadership takes the lead in convening regular donor coordination meetings and requests targeted support in consonance with CSO activities and capacity development plans.

7. Conclusions

Despite recent improvements, the Afghanistan statistical system continues to exhibit some weaknesses in (i) coverage, consistency, periodicity and availability of primary data; (ii) administrative data collection at national and regional levels; (iii) coverage of National Accounts such high-frequency data on private investment, remittances, and informal trade; and (iv) communication and coordination of statistical activities between the CSO and other line ministries. This is partly due to reliance on donor-funded large surveys (that are implemented every 2-4 years) at the expense of conducting regular and more frequent, but smaller, sample surveys.

In order to transition to an integrated system of data capturing, processing and dissemination, changes are required not only in how surveys are implemented and how the CSO is organized, but also in the way donors support CSO. It was in this context that the Statistics Donor Community proposed an institutional assessment of CSO led by a World Bank team and supported by the CSO. This assessment focused on actions and activities that can be realistically implemented by CSO with support from international partners, in the near future, within a 5-year planning horizon. These activities addressed assessing the CSO's status quo and identifying areas where the organization can further strengthen the institutional setup, data development, and statistical and physical infrastructure in the implementation of CSO's statistical activities.

The team of experts undertook a candid, constructive and forward-looking evaluation of current internal processes and workflows of CSO departments based on review of documents and interviews with key technical, managerial and administrative staff of CSO. The team derived at recommendations for CSO's products, processes, organizational structure, and donor support.

The recommendations on CSO's products included necessary improvements in the coverage of primary data collection, particularly in the domain of economic statistics and in the way secondary data are collected. Secondary data collection suffers from poor coordination of statistical activities and harmonization (of concepts, definitions, and indicators) between the CSO and line ministries. We strongly recommended CSO to more effectively engage with ministries to fulfill its role as the coordinator of statistical activities in Afghanistan by (i) working closely with ministries in the implementation of surveys of other line ministries; (ii) ensuring there is no redundancy and waste of resources; (iii) improving the quality of data and used classifications; and (iii) improving data sharing between CSO and ministries.

To prevent silos, we recommended adopting a process, rather than a product-driven, approach and adapting some of the core and support processes, specifically with respect to how secondary data are collected, by, in the short run, improving working relationships and modalities with line ministries and, in the medium-run, installing a data center with two-way communication from the ministries to the CSO and vice versa to allow for direct data access of administrative data.

The assessment also assessed shortcomings in staffing and the institutional structure. The largest challenges in current staffing are (i) low technical capacity; (ii) low pay which results in a low retention rate; and (iii) a challenging hiring process through the civil service commission. To enhance effectiveness and efficiency, we recommended changes to the institutional structure focused on (i) the balance of technical vs. support functions; (ii) to clearly divide responsibilities; and (iii) to clearly divide functions. We recommend six core statistics departments, two of which already exist—National Accounts and Field Operations—and four departments which will be carved out of two previous departments (Economic and Social Statistics). The Economic Statistics Department can be divided into "Public sector and Registers Department" and into "Primary Economic Statistics Department". The Social Statistics Department can be divided into: "Social Statistics" and "Population statistics".

To overcome limitations in current capacities and enhance efficiency and effectiveness, we recommended for CSO to develop concrete policies and implementation plans aiming at improving the organizational structure and human resource framework. We recommend prioritizing the following areas in the next three to five years:

Strengthening organizational structure. To implement a reform agenda and move CSO towards becoming a modern and responsive statistics agency, we recommend improving CSO's strategic and planning capacity by creating a (or revising an existing) plan of institutional mid and long-run strategy and annual work plans and monitoring mechanisms. This includes the preparation and implementation of a capacity building development plan for all technical staff.

Enhancing management and technical skills. To (further) improve technical skills, we recommend implementing strong capacity building and training plans with long-term engagements in all areas of CSO, not just those supported by donors. These plans need to focus on learning-by-doing approaches, supported by coaches and experts and based on training needs assessments. For the managerial staff, we propose to combine learning by doing in local workshops and seminars with potential users and/or journalists where the CSO managers will be challenged to explain their concepts, methods and techniques vis-à-vis a critical audience and where they are forced to get skilled in making propaganda for high-quality statistics.

Strengthening donor relations. To achieve CSO's objectives and to ensure CSO receives sustainable funding and technical support in the coming years, we recommend engaging in building stronger relationships with donors, implement a donor coordination unit at CSO which manages the engagement and ensures follow-up activities are undertaken.

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Annex 1: The Statistical System of Afghanistan

Like any other National Statistical Office (NSO), CSO has a country-specific institutional framework it is embedded in which comprises of the statistics law, supervision and auditing, budget procedures, recruitment and pay, grading rules of the government, etc. Since the institutional framework is an important aspect of the rights and obligations of CSO, this assessment briefly outlines the main aspects of the Statistical System of Afghanistan (SSA) and the main actor functioning within it, the CSO (Annex Figure 1).

The four elements of the SSA are: (i) National institutional framework; (ii) producers of statistics; (iii) international relations; and (iii) users of statistics, each of which are briefly presented below.

Annex Figure 1: Main components of the SSA

Source: Authors' elaboration.

The institutional framework in which CSO operates is embedded includes important legislative and policy documents including, but not limited to, the Statistics Law, the ANDS, Civil Service Commission, National Strategy for Statistics and external auditing (Annex Figure 2**Error! Reference source not found.**).

Annex Figure 2: Components of the national institutional framework

Source: Authors' elaboration.

The Statistics Law[18] is the most important legal framework for the CSO. Like NSOs in most other countries, CSO is given the sole mandate in the country to produce official statistics. Article 2 of the law mandates that the "Central Statistics Organization shall function, as an independent governmental administration, for the purpose of creating an integrated scientific system for statistics, ensuring harmonization and coordination of all statistical activities in the nation" (GoIRA, 2013).

Article 8 of the Statistics Law provides the following duties and authorities for CSO:

1. "To collect, compile, analyze and publish statistical information relating to the commercial, industrial, financial, social, economic, environmental and general activities and condition of the people;
2. *Compilation of gross domestic product and price indices*[19]
3. To collaborate with Ministries and administrations of the State in the collection, compilation and *dissemination* of statistical information, including statistics derived from the activities thereof;
4. Conducting statistical surveys and Population Censuses;
5. To prevent duplication in the *data* collected by ministries and governmental administrations or by agencies other than the state;
6. Generally, to promote and develop integrated social and economic statistics throughout the country, and to coordinate unified plans for the integration thereof.
7. To Develop and prescribe appropriate classifications and *statistical* standards for use by ministries and other administrations of the State.
8. *Sustainable* development and maintenance of appropriate databases (*Information Centers*) containing statistical information, and to facilitate access to the database to all users, except for confidential information as provided for in this law.
9. Decide on *data collection methods* for statistical purposes, how they are compiled and when and how statistics are disseminated.
10. *To prepare and present the final population estimates with consideration of population movements and mortality and fertility rates."*

Like NSOs in other countries, CSO shares the mandate for producing official statistics with other authorities such as the Central Bank, the Ministry of Finance (MoF), the Ministry of Public Health (MoPH), etc., as laid out in Article 8.3 above.

In line with Article 7.3 and similarly to NSOs of a certain size in other countries, CSO has regional and provincial branches for supporting field operations. CSO has a strong position within the overall set-up of the government as it is not subordinated to a ministry and is independent by law (Article 2). Its PG himself is member of the cabinet.

The ANDS, the Poverty Reduction Strategy Paper (PRSP) of the country, was Afghanistan's important national framework for monitoring poverty and the progress of socio-economic indicators in general (GoIRA, 2014). The content and method of the NRVA/ALCS is widely determined by it but the ANDS was also highly important for the development of other statistics in the country. In addition to the ANDS, the MDGs, Afghanistan's development agenda further contributed to the content and methods of the NRVA/ALCS in respect to data on poverty and other data on living conditions. The ANDS was

[18] Published in official gazette, Issued No. 1110 in 1392 (2013). The law has been amended in December 2016 (Official Gazette, Issued No. 1238) which, among others, provided a clear mandate for CSO to compile CPI and GDP data as well as to request data from registers of economic establishments.

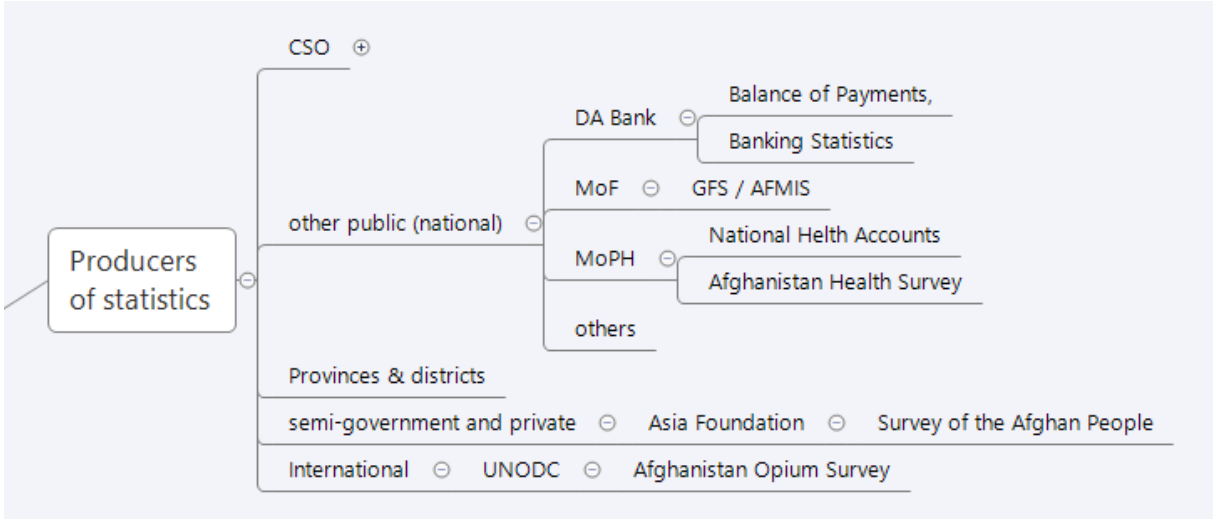
[19] Items in *italic* were added through the Amendment of some Articles of law on statistics (GoIRA, 2016b).

replaced with the National Priority Programs (NPPs) and the Afghanistan National Peace and Development Framework (ANPD) (GoIRA, 2016) and the recently adopted SDGs replaced the MDGs.

The Independent Administrative Reform and Civil Service Commission (IARCSC) and its rules and regulations govern the way CSO recruits and pays their staff. Moreover, there are other laws and government rules that CSO has to obey by such as the pay and grading system, the budget laws, etc. Last, but not least, CSO is also subject to external auditing by the Audit Department of the President's Office.

In 2016, CSO released the Afghanistan National Strategy for Statistics (ANSS) which was developed with the financial and technical support of Partnership in Statistics for Development in the 21st Century (PARIS21) for the years of 2016 to 2020 (CSO, 2016b). CSO expects that with "its implementation, fundamental changes will reflect in [the] country's statistical system".

Annex Figure 3: Producers of statistics in Afghanistan



Source: Authors' elaboration.

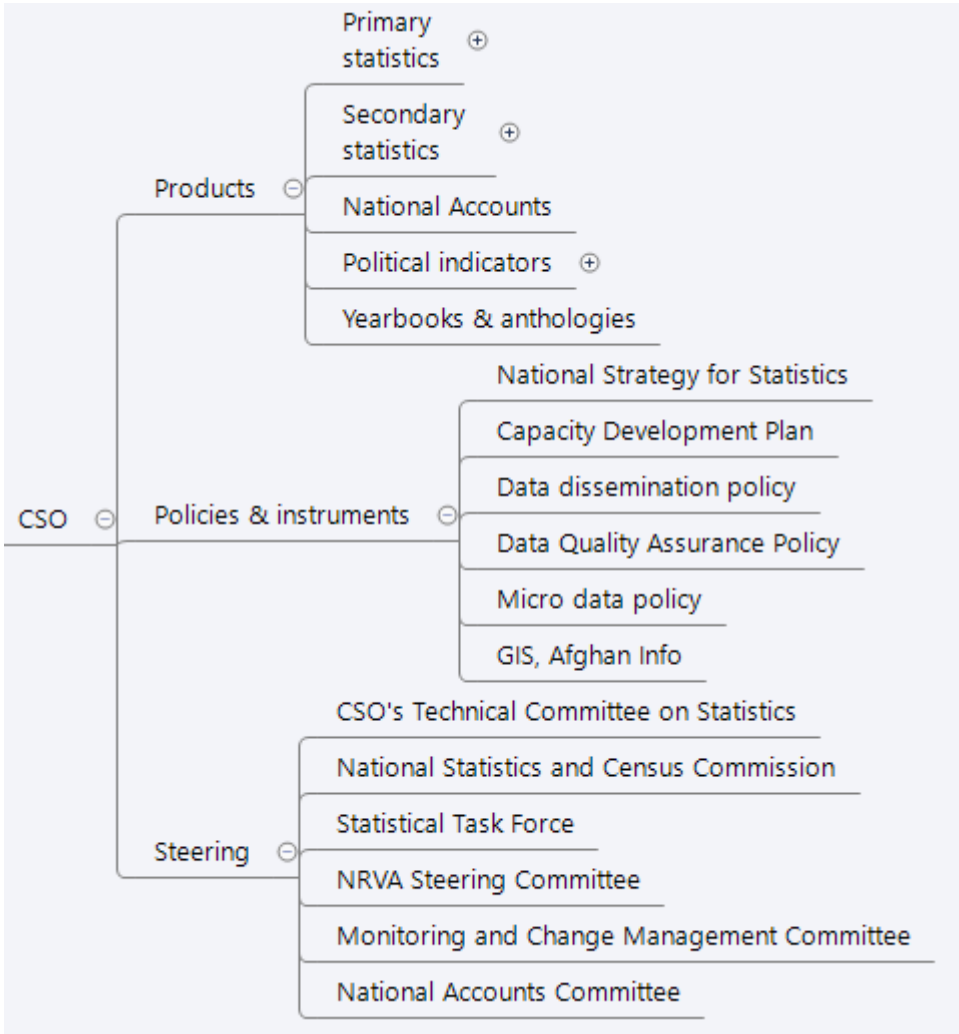
Even though CSO is the most significant producer of statistics in the country, other public producers are relevant (Annex Figure 3). For example, DA Afghanistan Bank (DAB), Afghanistan's Central Bank, compiles the balance of payments as well as banking and monetary statistics which are extremely relevant for National Accounts. Close collaboration on the reconciliation of these statistics is therefore needed between CSO and DAB. The MoF is producing the Government Finance Statistics (GFS) which are also integrated in CSO's National Accounts. Moreover, other ministries release their own statistics as, for example, the National Health Accounts or the Mortality Survey of MoPH, or the crop cutting estimates of the Ministry of Agriculture, Irrigation and Livestock (MAIL). "Other" important players come into play, for example, statistics of the provincial departments or districts, if any. "Semi-government and private" institutions may also release statistics, for example, the Asian Foundation, associations, chambers of commerce, and the like.

CSO is the dominant producer of official statistics in Afghanistan and presents its users with numerous products and defines policies, instruments, and steering groups on official statistics (Annex Figure 4Annex Figure 3**Error! Reference source not found.**). The products of CSO are the core of the Statistical System of the country[20]. In addition to providing products to end users, CSO also develops policies and guidelines on national statistics, such as the ANSS, capacity development plan and

[20] Details of CSO's products can be found in section 3 of this report.

policies on data dissemination, data quality assurance, and an access to micro data policy. CSO's website and AfghanInfo are the main data access points for users of official statistics.

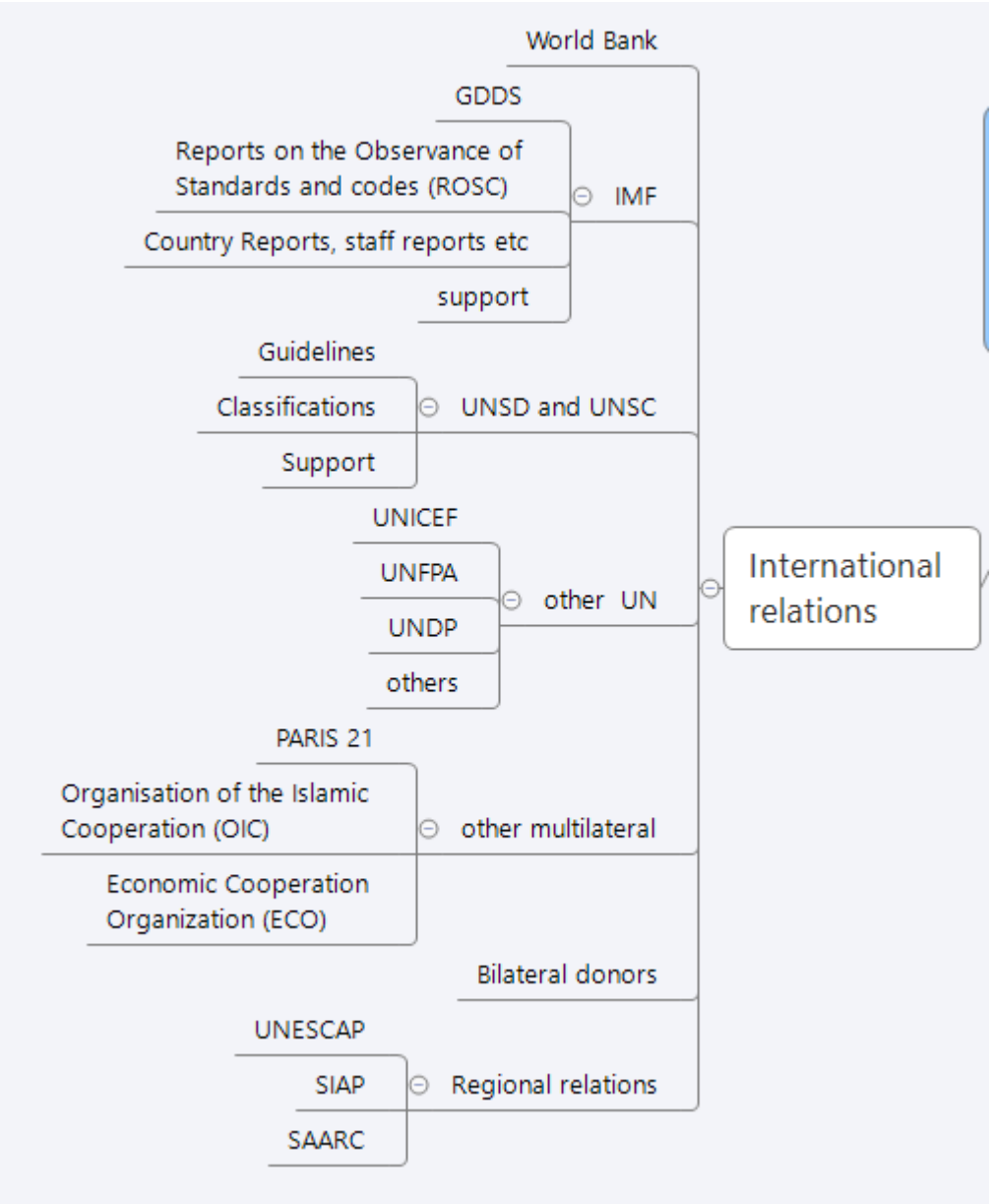
Annex Figure 4: CSO's role in the statistical system in Afghanistan



Source: Authors' elaboration.

CSO has further implemented several steering groups for the management of its output of statistics, among them the steering committees for the NRVA/ALCS, the National Accounts, and CSO's in-house Technical Committee for all aspects on producing statistics.

Annex Figure 5: International relations concerning statistics in Afghanistan



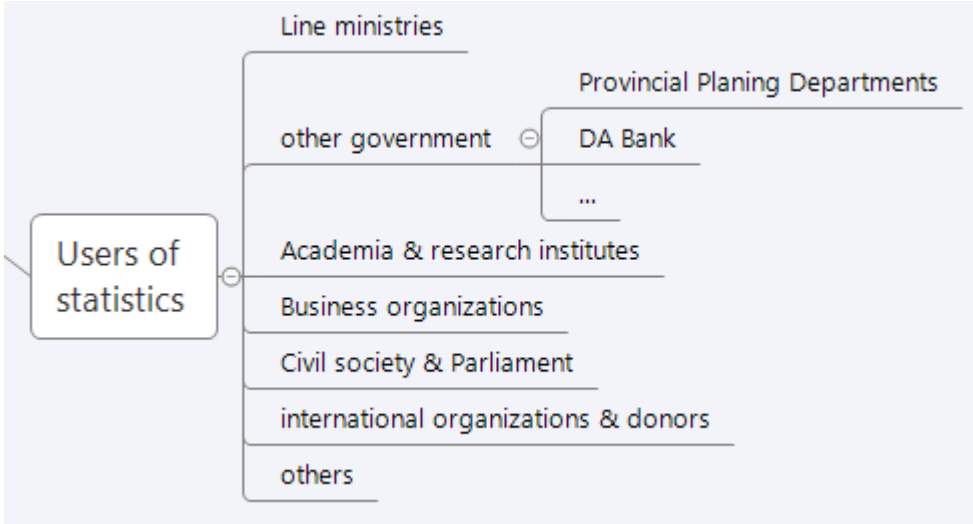
Source: Authors' elaboration.

The national institutional framework covers producers of statistics but international relations play an important role in the SSA as CSO's harmonized definitions, capacity building, and funding is often drawn through it (Annex Figure 4**Error! Reference source not found.**). Afghanistan, for example, participates in the IMF's General Data Dissemination System (GDDS), the DAB being the institutional focal point in this regard. In addition, the IMF conducts Report on the Observance of Standards and Codes (ROSC) missions to examine the quality of statistics in countries. Moreover, the IMF provides standards for assessing the quality of official statistics (DQAF) and releases international manuals on price statistics (Annex Figure 6).

The list of international relations relevant to CSO is widely self-explanatory and comprises, but is not limited to, its relations to various international organizations and donors which are active in supporting official statistics in Afghanistan. Such organizations are UNSD, UNSC, OIC, ECO, SAARC, OECD, Paris 21, EU and other international organizations and institutions that offer useful opportunities for international cooperation and standardization of statistics.

The main users of official statistics in Afghanistan are line ministries, government institutions such as the DAB or the Provincial Planning Departments, academia, researchers, and international organizations (Annex Figure 6). Since international organizations and other donors often bring significant amounts of funding to CSO, we thought it important to mention them as users of statistics as they often finance specific products of CSO and use their funding to shape the agenda of producing statistics according to their own priorities[21].

Annex Figure 6: Users of statistics in Afghanistan



Source: Authors' elaboration.

[21] Please refer to section 6 for more details.

Annex 2: List of conducted interviews and reviewed documents

Due to time limitations in conducting this exercise, the focus for interviews was on heads of departments for statistics departments and large administrative departments. To maintain independence, the Senior Management team of CSO was not interviewed, however, results on the findings of the institutional assessment were presented to the Senior Management Team (including President Genera Rasuli and Deputy PG Mowahed) in December of 2017.

Interviewee and date of interview	Interviewer(s)
Mr. Sael, Head of Budget and Administration Department, October 21	Bernd Struck
Mr. Kobari, Head of Economic Statistics Department, October 21 and 23	Bernd Struck and Christophe Dietrich (21st), Bernd Struck (23rd)
Mr. Sami Nabi, Head of Field Operation Department, October 22	Bernd Struck and Christophe Dietrich
Mr. Ali Aqa, Head of Policy and Planning Department, October 22	Bernd Struck and Christophe Dietrich
Mr. Zamoon, Head of Data Dissemination Department, October 23	Bernd Struck and Christophe Dietrich
Mr. Hamad, Head of HR-Department, October 24	Bernd Struck
Mr. Naimi, Head of National Accounts, December 12	Bernd Struck

In addition to interviews, the team engaged in a document review of past engagements and publications, examples of publications are provided in the below non-exhaustive list:

Institutional Framework/CSO	Donor support
Statistics Law of 2013 and its amendment of 2016	WB: Statistics Results Facility (SRF) Completion Report
Afghanistan National Statistics Plan, 2010-2014	WB: SRF Catalytic Fund Annual Report 2016
Afghanistan National Strategy for Statistics (ANSS), 2016-2020	UNDP: Capacity Development Plan, 2011 – 2014
Statistical Yearbook 1396	
Data Quality Assurance Policy	
Afghan National Development Strategy (ANDS), 2008-2013	
Human Resources Policy and Strategic Plan (2014)	
HR documents provided by CSO	

Annex 3: Good practices and lessons learned through the ALCS

The NRVA/ALCS is the longest standing CSO survey series with its first round in 2007-08[22]. Since then, three more rounds with one round soon to be published and another one planned. The survey has largely contributed to the development of CSO operational capacities, especially since 2011. Despite starting from a very low level of capacity, one of the major success stories of the ALCS has been the continuous transfer of knowledge and functions through a technical assistance component to CSO for large, yet not all, parts of the survey.

NRVA 2007-08

The NRVA 2007-08 was supported by donors, yet, it was in parts carried out by CSO with national experts and achieved a reasonable balance between quality and CSO ownership. This said, in 2010, the turnover in staff at CSO triggered by the gap in funding of the NRVA and the recruitment of trained staff by the UN drained institutional memory and capacities available and constituted a major step backward.

NRVA 2011-12

At the start of the NRVA 2011-12 in 2010, almost 90 percent of all functions were performed by the technical assistance team with CSO contributions limited to basic clerical tasks as the relevant capacities were no longer available. This caused substantial delays in the start as well as the finalization of the survey. In addition, the survey was still approached from a project perspective in terms of management and was implemented based on workplans and tasks instead of processes and functions. During the survey process, CSO management and the Technical Assistance team undertook a drastic change in the management approach for ALCS with first steps towards the shift to process management after a period of implementation guided by traditional project management approach that proved less than satisfactory. This was materialized through the introduction of (i) a technical assistance more focused on management in concertation with the EU and CSO management; (ii) setting production objectives for the survey functions; and (iii) a daily monitoring of these objectives.

The objectives were set for each function (data collection, checking, entry, verification) to absorb the volume of questionnaires within one month. Previously, no such targets had been set and although field operation were carried out within one month for the large majority, subsequent functions were performed with less productivity. The introduction of these daily targets per operator and monthly targets by function have helped to absorb up to three months delay out of the 12 months delay in operations but were still not optimal in relation to the heavy workload of a survey like the NRVA/ALCS.

In addition, the documentation of operations was sub-par as coverage of the sample was done manually using paper registers of clusters covered without any analysis or follow-up on the delays or replacements. In data checking, the major errors of the field staff were not systematically recorded either and/or corrected.

ALCS 2013-14

At the inception of the ALCS 2013-14 the technical assistance supported by the CSO Senior Management decided to change the approach to survey management completely. The first step was

[22] There was a round of the National Risk and Vulnerability Assessment conducted in 2005, which was the first survey implemented by CSO. However, data from the NRVA 2005 are not comparable with other survey rounds and we therefore decided to not include it as part of the sections on lessons learned.

to describe and formalize all the activities to be undertaken in the survey and to formalize them in workflows. These workflows have been grouped by functions and monitoring points and objectives have been defined. An important improvement on the documentation of survey activities was achieved by recording each event in data collection and recording major errors in the data checking to provide feedback to the field monitoring function.

In addition, the flow of questionnaire processing was altered to become a continuous flow instead of batch processing where all questionnaires are treated in entirety by each function before being transferred to the next.

The data collection was also monitored more closely and all clusters were recorded based on their collection date and whether the cluster is from the original or a replacement sample. Swaps between survey months were also recorded. This allowed CSO a much more precise monitoring of delays as well as of deviations from the original sample. The records in the sample monitor were done by CSO staff, yet the quality control and the analysis of deviations were done by the Technical Assistance Team.

The monitoring of GPS locations was difficult as the GPS devices used by the field teams were difficult to use, not very precise and needed on average, three captures of geo-location to provide accurate coordinates. In addition, in insecure areas, the GPS devices were too conspicuous to be used. At this time, all the questionnaires were administered using a pen and paper methodology, for shura, market price, male and female questionnaires. GPS locations were collected using GPS devices during the administration of the shura questionnaires and a non-negligible number of data points were recorded several hundreds of kilometers from the actual data point, including well inland from neighboring countries or at sea for some points. This was also the result of discrepancies in the setup of GPS devices as some were recording coordinates using degrees, minutes, seconds coordinates while others were recorded using decimal coordinates. GPS positions were written down on paper questionnaires and sometimes misreported, rather than uploaded to the survey monitor. In addition, some market price data were recorded in foreign countries but it was difficult to differentiate actual collection abroad due to the fact that the closest market was abroad from misreporting of coordinates.

In some provinces, the security situation did not allow for the use of these GPS devices and female interviewers were not able to travel. In rare cases, survey material and devices would be confiscated by locals.

During data entry, the major improvement included the switch from MS Access as stand-alone computer to a server-client interface using CSPro which has largely improved the accuracy of data judging by the largely reduced time required for manual cleaning during the analysis phase. In addition, the move from an outdated MS Access system to the new database system in CSPro has also largely reduced the process lead-time for data entry from 8 weeks on average in 2011-12 to 3 to 4 weeks in 2013-14.

The move to CSPro was decided in an effort to streamline and standardize the technology used at CSO across various surveys. The selection of CSPro as a standard database system was mainly made from a cost perspective (open source) and CSO already had some capacities working with CSPro contrary to MS Access that needed constant support from an external expert.

The database section was not directly supported by the ALCS program apart from the provision of the data entry and automated checking programs. The ALCS has, however, benefitted from the support provided by UNFPA with the SDES in this regard. It must be noted that for the most recent round of

the ALCS, the data editing was performed by an international expert. CSO received training on data cleaning and CSPro by UNFPA for the SDES but the available capacities and the increase in demand for staff of the database section (used for SDES and ALCS) justified the use of an international expert for data cleaning. The situation in the country with regard to security did not allow the database expert to provide direct training to the database section and these were undertaken by a Chief Editor (international expert). The attempts of data editing by CSO during the 2013-14 round were not of sufficient quality but allowed CSO to get more familiar with data editing while not slowing down the survey process.

While international experts as part of the technical assistance program undertook data cleaning and tabulations for the NRVA 2007-08 and NRVA 2011-12, in the ALCS 2013-14, CSO staff started to be involved in these activities in limited capacity. Training in data cleaning and data analysis was provided to a select group of CSO staff.

The overall survey time for the ALCS 2013-14 (from preparation to release) reduced from 38 months in 2011-12 (data collection alone required about 22 months due to challenges mentioned above) to 27 months based on the documentation of the survey processes. Despite large improvements, this was still 5 months longer than the ideal target of 22 months as foreseen in the project concept note and the terms of reference. Delays can to some extent be attributed to presidential elections, which took place during the ALCS 2013-14, which suspended data collection for a full month.

By the end of the ALCS 2013-14, the following functions were carried out by CSO:

- Monitoring of field operations
- Manual data checking
- Data entry and verification
- Recruitment and training
- GIS

ALCS 2016-17

With one year delay, due to the implementation of the Demographic and Health Survey (DHS), the ALCS round of 2016-17 started in April 2016 with further consolidation of the operations, processes and monitoring of processes.

The first improvement was the implementation of the shura and market price data collection via Computer Assisted Personal Interviewing (CAPI) to allow for better and more accurate collection of geo-location as well as a test for CAPI in the ALCS. CAPI faces large challenges in the Afghanistan context for the following reasons:

i. Low overall capacities and facilities at CSO. For instance, before 2013, there was no internet connection available for the NRVA/ALCS teams which would make data transmission very difficult;
ii. Data entry and database sections were accustomed with client/server entry and verification in CSPro and a switch was not advisable at this stage;
iii. Constraints to implementing CAPI due to low capacity of field staff, enumerators are hired as “couples” (1 male and 1 female enumerator) who need to administer the survey together. Finding female staff with adequate profiles is very challenging.
iv. Security situation in some part of the country does not lend itself to data collection using CAPI due to security concerns for enumerators (and possibly respondents).

v. ALCS questionnaire is considered too long for a full CAPI implementation and would require several steps in testing before full CAPI can be implemented.
vi. Difficulty to find qualified couples outside of large cities who could handle CAPI
vii. IT infrastructure of CSO is considered too weak to support CAPI at this point in time and the additional costs (as the full pen and paper methodology needs to be in place as well for areas where CAPI cannot be implemented) are also major obstacles.
viii. In remote areas, internet connectivity (at least at a 4G connectivity) and electricity will almost certainly not be available for data transmission and to recharge the tablets which constitute major obstacles.

The second improvement was a more elaborate monitoring of the implementation of sampling in excel allowing for an automatic monitoring of progress and coverage by province, month and quarter of data collection. The monitoring system records all deviations, reasons for deviation and the automatic presentation of the planned vs. actual data collection time to account for delays and distribution of data points by quarters.

In terms of data checking, the number of manual checks was reduced as a result of increasing number of automated checks undertaken by the data entry system as well as the data editing programme. Manual checkers are now only controlling and recording major issues based on predefined criteria. The manual checking function is undertaken through an excel application to record major errors and the system provides a report on the relative occurrence of major errors by province to allow for quicker and more accurate monitoring.

Data editing is now conducted in parallel by CSO and an international expert to verify CSO's outputs. During survey implementation, the data editing performed by CSO has largely improved and is thought to be almost fully independent.

In data entry, the process lead time reduced by an additional 1 to 2 weeks and it now takes about 6 to 7 weeks to process data of one cluster. The accuracy of the processing and editing of data improved again as the time needed for manual cleaning at the analysis phase reduced by one month compared to the previous round.

CSO has also been involved in analysis as the Mid-Term Report for the ALCS 2016-17 was produced by CSO following a training and a template design of the first quarter which was provided through technical assistance. However, the capability to produce notes and reports independently is rather limited.

The functions implemented by CSO almost independently by the end of the round are:

- Sampling
- Recruitment
- Training
- Data collection operations and monitoring
- Data checking
- Data entry
- Data editing
- Contribution to analysis (some chapters of the ALCS are done by CSO staff)
    - CSO is currently producing the household and amenities chapter together with the TA team and the agriculture chapter on their own
    - CSO also provide support for labor, education, health, population, shocks and coping mechanisms chapters

    - CSO is producing the methodology chapter
- Support to other surveys (DHS, SDES, Men and Women Decision Making, AHS)
- Secretariat of all governance bodies (Steering Committee and Technical Advisory Committee)

The following functions are still largely supported through the Technical Assistance component:

- Questionnaire design
- Database programming
- Quality control
- Metadata
- Analysis
- Reporting and publication

Main lessons learned and good practices

This section summarizes main lessons learned from the implementation of 4 survey rounds of the NRVA/ALCS over a period of approximately 12 years.

1. In an environment like CSO's, where management skills and capacities are limited, organizing cyclical work like surveys to follow a project approach is counter-productive and induces delays and ineffectiveness due to the lack of ownership and responsibility. As an example, CSO staff felt strongly about having terms of reference or job descriptions that were mainly seen as a way to not do the tasks that were not described rather than to take responsibility for required tasks. In addition, in terms of management, CSO staff were not able to anticipate upcoming tasks and assign resources and time for their implementation. Often, CSO staff were not able to prioritize among competing tasks and waited until one task unrelated to another is finished before starting a new one. The change to process management and specialization of functions has helped the ALCS team to overcome managerial shortcomings as targets and duties were easily understood and implement and the absence of job descriptions did not allow to "escape" responsibilities. In summary, organizing the work into continuous processes appears easier to manage, to implement and to monitor for CSO staff compared to large workplans and punctual although repetitive activities.
2. Constant presence of Technical Assistance is not necessarily beneficial if it leads to a lack of ownership of operations by CSO as there tends to be a temptation to take over work from CSO to cope with tight timelines. As long as capacity is lacking in specialized areas, Technical Assistance is necessary but there is a trade-off between ownership and getting tasks done on time and with high quality. CSO must start performing work independently with a possibility (and forgiveness) for mistakes.
3. Full documentation of operations is essential for the credibility of the data and the legitimacy of CSO as a producer of data. Systematic and full documentation of all processes, tasks and activities should be mandatory across the whole organization. Currently, limitations exist in understanding the need for documentation as well as the capacity to document according to international standards.
4. Initiation of discussions between CSO and line ministries can trigger important results as evidenced by the adoption of a national definition of unemployment between CSO, ILO and MoLSAMD. Stronger collaboration would benefit all sides.
5. CSO has not yet managed to translate its strong performance in the ALCS to other areas at CSO, mainly owing to the silo structure of CSO. Trainings delivered through the Technical Assistance to the ALCS were open to other CSO departments and attendance was typically

good. However, the absence of proper capacity building outside FOD since the termination of the SRF has limited the impact as the heterogeneity of the working methods within CSO does not allow for immediate application of the training content into one's every day work.

6. An example of a less successful cooperation is the development of a data quality policy developed by CSO that appears to have been done in complete isolation, only considering processes under SDES with little integration of other products, particularly from subject matter departments. The ALCS is mentioned for the sample monitoring but the BES is not mentioned at all.

Good practices from the ALCS

Given the long-lasting engagement on building capacity of CSO staff as part of the ALCS, we observe numerous good practice examples which we recommend to also apply in other areas of the CSO. These include:

1. The ALCS Technical Assistance component aimed at putting CSO in the driver seat for conducting the ALCS. The team of experts have moved towards acting as enablers and facilitators rather than as implementers, which was the case at the beginning of the NRVA/ALCS survey rounds. This is especially the case for survey operations and internal reporting. With respect to quality assurance, analysis and reporting, the technical assistance component has taken the lead but was focused on transferring some responsibilities and tasks to CSO staff. Despite the large transfer of responsibilities to CSO, timeliness was mostly preserved due to the acquired ownership and to the implementation of business processes.
2. The entirety of the survey operations and processes have been documented and are replicable to other surveys within or outside CSO with some necessary adjustments. CSO now possesses an institutional memory regarding survey operations independent from specialized staff. This said, capacities are still concentrated in few staff members and too few candidates are available for further development of capacities.
3. The ALCS has served as a vehicle for other activities such as the water sanitation survey funded by UNICEF as well as a basis for capacity building with the support from WFP on food security analysis and from the World Bank on poverty analysis. Yet, capacity for data analysis (especially more detailed analysis) is rather limited and concentrated on very few staff. This hinders CSO to undertake more complex analysis of survey data to feed into policy making. More training and support is required in the future to ensure data analysis skills are transferred to CSO staff sustainably.
4. The ALCS is the driving data source for policy making in numerous topics of interest to the ministries and beyond. In this regard, large consultations with data users are conducted to gather information about data needs from the ministries. In addition, the ALCS has provided data for the monitoring of the ANDS, the MDGs and is now providing data for the monitoring of SDGs as well as for the ANPDF. The ALCS was also referred to as the main source of data for the assessment of the socio-economic situation of the country while preparing the ANPDF. Furthermore, donors and researchers use ALCS data as a prime source for analyzing the socio-economic situation in the country as well as conducting research. Yet, CSO currently has very limited interactions and engagement at the policy level with line ministries. Improvements in the collaboration with line ministries could aid the production of policy notes.
5. The ALCS has produced process monitoring tools and knowledge regarding CAPI that other departments and other surveys at CSO could use. Yet, due to the formation of "silos" at CSO, few knowledge spillovers in this area take place.

We recommend for CSO to consider implementing a model of business process in other areas of CSO, such as conducting SDES, DHS, BES but also to think about adopting it for gathering secondary statistics from line ministries.

Annex 4: Mapping of donor support to the Statistical System of Afghanistan

Area of support	Fund to support Statistical System in Million			Disbursed Amount			Partner Name	Activities	Duration support		by year
	$	£	€	$	£	€			Start	End	
Data Collection & Analysis											
Data Production (Population, Socio-Economic)		25.70			12.30		United Kingdom, (DFID)	Socio-Demographic and Economic Survey (SDES)	2013	2018	6 Years
	9.42			9.42			USAID		2016	2017	2 Years
	15.00			15.00			Japan		2011	2016	6 years
			0.30				Denmark		2011	2013	3 years
	1.70						UNFPA		2011	2015	5 years
			11.00			10.00	EU-Delegation (10 million 2005 -2017-1 m for 2018)	Afghan Living Condition Survey	2015	2019	each round
	0.05			0.05			WFP		2015	2014	each round
	7.00			7.00			USAID	Afghanistan Demographic and Health Survey (AfDHS)	2013	2015	2 years
	0.08						UN-women	Men and Women in Decision Making	2016	2016	each round
	0.42			0.42			UNFPA	Population maps and population estimation	2015	2017	2 Years
	33.59	**25.70**	**11.30**	**31.89**	**12.30**	**10.00**	**16 partners**	**7 Surveys**	**2009**	**2021**	
Economic Statistics											
Support to Economic statistics							IMF	Support to the National Account Department			
	0.30						World Bank	Support to the National Account Department (re-basing GDP)	2016	2018	3
	0.30	0.00	0.00	0.00	0.00	0.00					
Improve Framework and Institutional Development											
Institutional Developme nt			2.00	0.00	0.00	0.00	Italian Agency for Development and Cooperation (IADC)	Covering different aspect of CSO capacity building	2017	2019	3 Years
	0.06						UN-Women	SDGs' indicators according to Tier Classification	2014	2017	
	0.10						World Bank	Institutional Assessment	2016	2018	3

	0.10						World Bank	Support on poverty analysis	2017	2018	each round
	0.05						World Bank	Support on producing gender-disaggregated statistics	2017	2018	2
	0.25	0.00	2.00	0.00	0.00	0.00	6 partners	6 areas	2009	2021	
Infrastructure and ICT											
Apply technology	0.003						UN-WOMEN	IT infrastructure, Online database, Trained CSO staff on SIMS			
	0.00	0.00	0.00	0.00	0.00	0.00					
Administrative Data Systems											
Improve Government Admin data								Activities			
	0.00	0.00	0.00	0.00	0.00	0.00					
Improve Statistical Literacy											
User Engagement	0.53			0.53			United Kingdom, (DFID)	Dissemination of Statistics and capacity building of Provincial Statistics Officers			
	0.53	0.00	0.00	0.53	0.00	0.00	1 partner				

Annex 5: Data Center at CSO

The last two decades witnessed an important move towards statistical information systems that integrate the tasks throughout the statistical activity, whether it is a census or survey, collecting and collating data, creating statistical reports or making them available to the relevant stakeholders at appropriate times. Leading statistical offices integrate the data repositories and processing systems, harmonize the tools used, with a view of having efficient, transparent and easy to maintain systems. This is the general trend in statistical offices at present. Use of Information Technology has become so pervasive in the statistical processes that the two terms statistics and information technology are used synonymously. It is for this reason that one planned component of the SRF was to design, develop and establish a Statistical Data Center for CSO which unfortunately never came to fruition.

Until today CSO has been collecting, storing and disseminating information to ministries and other independent organizations manually. Given increased demands and technological advancements, CSO may consider migrating from a manual process of sharing data to a computerized process where the data collection, storage and dissemination will turn into a much more cost-efficient and effective process.

The objective of creating a Statistical Data Centre for Afghanistan is, from a strategic point of view, to streamline the variety of electronic interfaces to the public. This will enable quick access to most commonly requested data through an electronic interface which will allow CSO to access national but also regional databases and to linked Management Information Systems (MIS) of ministries. The Data Center would include hardware infrastructure, network components, system software as well as the necessary applications. However, implementing a Data Center is not only an ICT exercise, rather, it necessitates the involvement of experts including those who can answer copyrights and ownership questions as it is a politically and strategically sensitive issue (relevant enough to be codified in the law).

The Data Center would be implemented for storing of statistical information at all stages of the production cycle, i.e. raw data, microdata, macrodata, output data, metadata etc. The Data Center could be linked with the application system that would allow for collecting, storing, and retrieving information at all levels. The system would support automatically generated data entering and editing on the basis of metadata descriptions stored in the Data Center. It would also support automatic aggregation procedures based on metadata descriptions stored in the Data warehouse. The system could also support metadata driven preparation of the output tables ensuring automatic confidentiality checks.

Concrete bidding documents and proposals are already available and could be utilized if CSO installs a Data Center. The following steps would have to be undertaken to implement a Data Center at CSO:

- Clear identification of ICT vision, including timeline, deadline and required support and help desks for in-house users
- Hardware Infrastructure in line with the stated vision
    - Data Center architecture
    - Servers & network architecture including routers/ switches / modems
    - Bandwidth need at the proposed data center
    - Need for desktops and laptops
- Software needs to fulfill the stated vision for data processing and data analysis and dissemination.
- Systems need over the next decade.

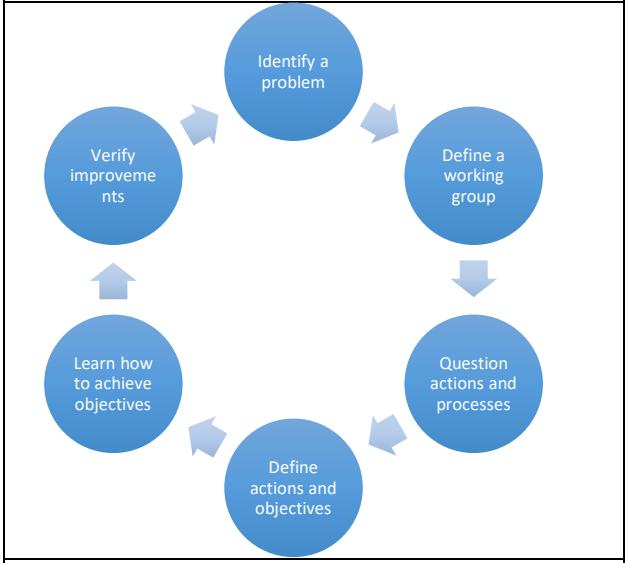
    - Statistical Systems
    - Database Management systems
    - Data Warehouse & Data Mining systems
    - Geographical Information Systems
    - Web Centric Technology solutions
- Applications need in the data collection and statistical data processing domain (for household and establishment surveys, censuses, price collection and other data collection activities).
    - Data Collection systems (with special emphasis on hand held devises)
    - Data Collation, verification, authentication systems
    - Data security and integrity
- Data Processing, Storage & retrieval systems
    - Replacing batch-oriented processes through dialogue oriented ones
    - Replacing prefabricated tabulations through flexible solutions on demand
    - Introducing modern retrieval tools
- System maintenance
    - Required skills and resources, definition of responsibilities
- ICT capacity building needs of CSO
        - Information Technology
        - Using statistical software packages
        - ICT maintenance
        - Network administration and help desk support
- Effectively manage change ushered in through the process of computerization.
- Interoperability of the CSO systems with other systems in the government. Connectivity with systems with line ministries.
- Sustainability of the developed ICT systems over a Long Term in the department

Annex 6: Action Learning Approach

Action Learning is a process that involves a small group of people working on real problems, taking action, and learning as individuals, as a team, and as an organization. Action learning contributes to developing creative, flexible and successful strategies to problems which often results in insightful questioning and reflective listening. Action Learning tackles problems through a process of: (i) asking questions to clarify the exact nature of the problem; (ii) reflecting and identifying possible solutions; and (iii) only then taking action ()Annex Figure 7. Tackling questions within teams, rather than by individuals, can facilitate group dialogue and cohesiveness, generate innovative and systems thinking, and enhance learning results.

Action Learning is typically undertaken in six steps - (i) identify the problem; (ii) define a working group; (iii) question actions and processes; (iv) define actions and objectives; (v) learn how to achieve objectives; and (vi) verify improvements. The problem identification stage is often the most challenging stage due to the lack of data to conduct an evidence-based diagnosis of the situation and shortcomings in the implementation of an intervention. One way is to develop small working groups composed of people who are directly involved in either the data aspect or the type of problem one is trying to solve. Once the problem and the working group are identified, the group engages in discussions (which could be under the supervision of a facilitator or an expert in the field of engagement). Through discussions, the group comes up with an action plan and objectives, preferably quantified, that would include specific measures on how to achieve the objective and a timeline of activities. The next stage—learning how to achieve the objectives—pertains to better understanding what methods (in an analytical sense) are at hand to enable the analyst to achieve the objectives. Once analysis is undertaken, the working group should evaluate the progress made in answering the question as well as understand whether objectives are met. This step is crucial for further learning and improvements.

Annex Figure 7: Steps of Action Learning



Source: Authors' elaboration.

To tackle interdisciplinary problems, the Action Learning approach could apply to a broader working groups involving staff of CSO, ministries and universities. The process could further be improved by including an expert of the specific subject area who could deliver initial classroom training on the key methodological aspects and data sources. The working group could then define the scope of the work in collaboration with the expert and define a plan to produce thematic analysis in the form of a report within a certain time period. To ensure sustainable knowledge transfer to CSO staff, the working group is responsible to undertake the analysis with support from experts, who could perform quality assurance of products but the working team is responsible for delivering the task timely and with high quality.