

## LIBANO

### Miglioramento del sistema statistico attraverso il rafforzamento della Central Administration of Statistics

#### PIANO OPERATIVO GENERALE (General Operational Plan)

##### Premessa

Il Piano Operativo Generale del progetto di seguito riportato è stato predisposto in stretta collaborazione con la [Central Administration of Statistics](#) libanese, controparte diretta del Progetto, nel corso della prima missione a Beirut dal 26 febbraio al 1 marzo 2018 (v. Allegato 1).

Il Piano individua le principali linee di attività e modalità di intervento in cui si articolerà il Progetto, assegna a ciascuna di esse le risorse individuate nei limiti del finanziamento totale previsto dalla Convenzione Istat/AICS<sup>1</sup> e stabilisce gli obiettivi e la tempistica delle azioni concordate e stabilite nell'arco della durata del Progetto (36 mesi).

Il piano descrive l'approccio che sarà utilizzato per garantire il trasferimento delle conoscenze alla CAS e l'introduzione delle innovazioni, in un'ottica di sostenibilità, appropriazione e rafforzamento delle capacità statistiche e istituzionali. Il Piano non riguarda le parti della Convenzione a gestione diretta AICS ma esclusivamente il Progetto in affidamento all'Istat.

Gli aggiustamenti ed aggiornamenti rispetto alla Proposta di finanziamento (All. 1 della Convenzione) concordati con la CAS non impattano sul disegno, gli obiettivi e i risultati generali della Convenzione ma ne rappresentano una maggiore adesione all'attuale contesto e alle esigenze concrete. Possibili future modifiche al Piano preventivamente concordate con la CAS saranno tempestivamente comunicate.

Il Piano viene redatto e presentato in inglese per agevolare la coerenza con la documentazione e reportistica di progetto condivisa con la controparte, nonché la condivisione ed il riutilizzo rapido con altri attori e interlocutori diretti e/o indiretti.

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<sup>1</sup> Reg. Istat n.1 del 5/1/2018, Rep. AICS n. 18 del 2/2/2018.

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## General Operational Plan

Country	Lebanon
Project name	Improvement of the National Statistical System through the enhancement of the Central Administration of Statistics - CAS
Duration	36 months (5 February 2018 – 4 February 2021)
Implementing Agency	Istat – Italian National Institute of statistics

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## 1. General overview

The Central Administration of Statistics (CAS) is a public Administration within the Presidency of the Council of Ministers of Lebanon.

According to the Law 1793/1979, CAS is responsible for the statistical sector development policies which consist in collecting, producing and disseminating social and economic statistics at the national level and in providing all users with evidence-based information for decision making. Decree n. 2728 of February 1980 regulates its organization, defines tasks and responsibilities of each Department, and provides for the staff resources allocation, both in quantity and professional profiles.

CAS suffers from resources constraint, in particular understaffing (currently 108 staff against the 256 foreseen by the Decree) and regular funding, which hinders its capacity to systematically carry out key surveys. The only regular production is the release of the Consumer Price Index and of national accounts estimates.

Most of the other data collected and disseminated by CAS on demographic, social and economic situation of the country dates back to 2009 and 2011, which obviously do not reflect and represent the rapidly evolving socio-economic situation of the country, in particular after 2012 with the impact of the huge number of Syrians who fled the conflict in their country to Lebanon.

CAS institutional setup has faced over time a number of weaknesses that can be summarized as follows:

- Weak autonomy and flexibility, reflected in very rigid administrative procedures, which impact on CAS organization and management;
- Lack of long term strategic vision which is reflected in absence of programming and planning. No statistical programme exists for the country;
- Lack of government support and investment, in particular for development and implementation of new statistical processes and products;
- Absence of coordination between Ministries and other official statistics producers and providers, in particular for the exchange and use of administrative data. No consultative process is in place for the definition and agreement on the country statistical production, there is no existing body to steer, coordinate and supervise statistical production at national level. No mechanism or body exists for consultations with users and advocacy of statistics;
- Absence of commitment to a calendar of surveys and data releases, due to high irregularity of key surveys, which mainly rely on the availability of external funds;
- Weak capacity of staff regarding: computer security, data transmission standard, software and information procedures. No training or human resource policies are systematized or in place, and training CAS benefits from is mainly provided by external actors and funding, and therefore strongly irregular and often not responding to specific medium and long term needs of the institution;
- Severe restrictions apply also to recruitment of new staff, in particular for enumerators and field staff, and affect the production processes, thus making CAS dependent on external resources for new surveys.

These factors result in an acknowledged absence of regular and timely data and indicators describing key sectors of the country.

In March 2016 CAS sent a request to the Beirut office of the Italian Agency for Development Cooperation (AICS) to start a cooperation with Italy: the request was twofold, addressing on the one hand technical assistance in identified areas, and on the other the provision of IT equipment and infrastructure, also in view of the migration of CAS to the new premises. CAS relocated in the new building in Hadath district between September 2017 and January 2018. In February 2018 the new building was not yet fully functioning.

Further to the official request, an appraisal joint mission was organized in May 2016 with AICS and Istat to assess CAS needs, verify the feasibility and define the scope and strategy of the financial and technical assistance.

The parties identified the priority sectors of cooperation, namely **1)** Support for institutional development; **2)** Support to CAS IT Department/SDMX; **3)** Support to GIS system; **4)** Support to CAS administrative work and **5)** Support to the Social Statistics Department.

The Italian cooperation builds on three parts:

- AICS Beirut, with direct management of funds for IT equipment, hardware and software. This part will be concluded with the purchase of equipment at the beginning of the project;
- Istat project, covered by this General Operational Plan - GOP, and regulated by the agreement with AICS Rome;
- AICS Rome, with direct management of funds for monitoring and possible expert provision.

The first mission under the formal umbrella of the agreement AICS / Istat took place on 26 February – 1 March 2018. It allowed to confirm the sketched cooperation framework and to define with a greater detail the sectors of intervention. Such sectors have been translated into components and further detailed into groups of activities, presented in this GOP.

Following the mission, the overall dossier on the Italian support has been transmitted to CAS for submission to the Prime Minister Office on 8 March 2018 for formal approval from the Lebanese Government.

It must be underlined that no further activities can be implemented before CAS receives this formal approval, which impacts on the 36 months of duration of the project (according to the Agreement AICS – Istat, the Project has formally started on 5 February 2018).

As for the formal framework between CAS and Istat, as soon as CAS receives approval of the project and donation, an ad hoc version of the General Operational Plan will be submitted by Istat for official agreement.

The adjustments and refinements agreed with CAS do not affect the original overall project objective, design and expected results.

## **2. Project key features**

### *Overall objective*

To contribute to the enhancement of the statistical system in Lebanon by supporting CAS in its official statistics production and dissemination processes.

### *Specific objective*

To provide CAS with IT equipment, introduction of statistical and technical standards, and training on new tools, support in specific production processes, modernisation of its administrative infrastructure, with a view to further promoting its role within the Lebanese society.

### *Beneficiary*

The direct beneficiary is CAS of Lebanon. Other beneficiaries will be the institutional users of the statistical information provided by CAS (i.e. Ministries, Government and local bodies, Universities and International Community). In a wider perspective, the whole country will benefit from the project, as government policies based on reliable statistical data would allow to better guide and evaluate the development processes of the country.

On the basis of consultations during the mission (26/2/2018 – 1/3/2018) the project will build on three main pillars interlinked with each other in a consistent way:

- introduction and training on new tools, standards and methodologies (IT, SDMX, GIS, selected statistical processes, website, digitalisation of processes and corporate planning);
- activities complementary to existing and ongoing production processes (e.g. support in the field of social statistics and, in particular to the current Labour Force and Household Living Conditions Survey - LFHLCS);
- specific actions targeted at designing a framework for cooperation among administrations producing statistics with a view to enhance CAS role at national level.

### **2.1 Expected results and activities**

Consistently with the original project proposal, the project expected results are the following:

- 1. Institutional development.**
- 2. Improvement of IT Department performance.**
- 3. SDMX training and introduction.**
- 4. Introduction of new methodologies of GIS for statistics.**
- 5. Introduction of digitalization processes and corporate planning for the administrative work.**
- 6. Improved social statistics.**

Compared to the original, it was decided to split Result n. 2 into two components and to treat them as separate, one Component focused on IT and the other specifically on SDMX.

Each result is associated to a specific Component, split into group of activities and designed to address specific, concrete and jointly identified needs of CAS.

For each Component the following chapters detail the background and priorities of CAS, the agreed activities, the specific expected results and related outputs.

Proper attention is paid both to links and consistency between different groups of activities and to the identification of risks and assumptions that may impact on the project implementation, and possible mitigating measures.

The detailed breakdown of activities per Component and the time frame are reported in the Workplan in Chapter 5 and Annex 2.

### **Component 1 - Institutional development.**

The law establishing CAS (Law Implemented by Decree No. 1793 of February 22, 1979), as well as the Decree regulating CAS internal organisation (Decree No. 2728 of February 28, 1980), have become somewhat obsolete given the many years passed since their entry into force. In addition, their contents do not provide an adequate framework within which CAS can fulfill its mandate of producing quality official statistics and most provisions have never been enforced and met, especially for what concerns human and financial resources.

Even though the Government organisation places CAS directly within the Presidency of the Council of Ministers such functional positioning has not resulted overtime in a positive advantage for CAS, which does not specifically benefit from this status in terms of the required support aimed at fostering a proper CAS role.

On the contrary, even without entering into the specifics of its statistical production processes, CAS describes itself as having an institutional setup that has faced over time a number of severe weaknesses, many of which deriving from the lack of government support, inattention to institution building, restrictive administrative procedures, very strict constraints on recruitment and chronically insufficient financial resources.

Such situation has triggered not only a certain degree of duplication of core functions of CAS, which are carried out also in other better staffed and better resourced administrations, but has progressively impoverished CAS as a whole, hindering its internal organisation and its reputation in the country, depriving it from the possibility to longer term vision and planning capacity based on set objectives, suitable staff and adequate financial resources. This situation brings CAS to picture itself as a donor driven organisation, this being a great limitation for CAS at the local level and for the country as a whole.

Nevertheless, CAS has managed to internalise and autonomously produce National Accounts data and Consumer Price Indexes, and has also initiated to manage a number of other processes, namely those for which external resources allowed active participation.

From the situation described above, it is of utmost importance for CAS to set as a priority objective to strengthen its position within the Government and the Lebanese public administration, and towards the donors as well.

If the overall objective is to render CAS a modern organisation with a fully-fledged functional and organisational setup in the country, within the scope of the activities implemented in the framework of this project, the present Component will support the institutional strengthening of CAS as producer of official statistics and as core of the Lebanese national statistical system by putting into place a number of actions, also with interconnections, efficiency of scale and cross cutting value, with respect to the activities of the other project Components.

As a starting point, a thorough assessment of the present state of affairs within the Lebanese public administration and the other donors active in the country in the field of statistics will have to be undertaken in order to set immediate and up to date contacts with all administrations and bodies potentially involved.

In so doing, a thorough review of previous projects and outputs in this field will also be undertaken, in order to avoid repeating activities already implemented and with a view – if necessary – to adapt such outputs to the present state of affairs and possibly streamline them into standard practice.

It is to be pointed out that Decree No. 2728 specifically foresees that the Production Statistics Department and the Household and Social Sector Statistics Department « provide technical supervision on the statistical units of ministries and other public administrations concerned .... enhancing the methods of establishing their work in statistics and extracting their available statistical information..... also preparing the periodic statistical investigations ». Such provisions are far from being implemented and specific actions to this end will have to be addressed within this Component. On overall, support will be provided to finalise and possibly adopt a new statistics act, aimed at providing the legal framework within which CAS is put in the position to actually implement its role, as is best practice for all national statistical offices around the world.

Taking stock of previous work, activities will have to draw extensively on the update of previous advancements already reached within the framework of other assistance provided to CAS, and namely, among others, the document «*Lebanon: reform and strengthening of the statistical system – A statistical master Plan (2008)*», updated with document «*Lebanon: statistical master Plan – Proposed implementation Plan (2013)*», the «*Proposal for the preparation of a statistics act for Lebanon (2012)*» and the much more recent draft «*Memorandum of Understanding in the fields of macroeconomic and financial statistics for inter-institutional data exchanges between the General Directorate of Finance- Ministry of Finance (hereinafter called DG-MoF) and the Central Administration for Statistics (hereinafter called CAS)*».

Within the project itself, several links to the activities within other components are envisaged and, in particular (in sequential - and not necessarily priority - order):

- in Component 2: the overall improved IT environment and the release of the new website, for what concerns the implementation of tools to advocate for the better positioning and the enhanced role of CAS;

- in Component 3: the progressive adoption and implementation of the SDMX standards and tools to enhance data exchange, for what concerns the realisation of instruments aimed at fostering and easing data exchange among the different concerned administration and CAS, besides for international purposes ;
- in Component 4: the design and progressive implementation of a georeferenced framework, regularly maintained and updated, to which official statistics will progressively link, again to provide an additional tool, entirely managed by CAS, to present and publish official statistics, also to be shown on the new website;
- in Component 5: the enhancement of CAS administrative processes and corporate planning through digitalisation, in order to render CAS a modern organisation, in line with the on-going e-Government strategy within Lebanon, and with a view to provide tools to support CAS planning functions in the field of production processes and resource allocations, also with the overall objective to reinforce CAS role within the national statistical system ;
- in Component 6: the setting up of inter-institutional practical cooperation frameworks for the exchange of data and information, including the adoption of common methodological and publication standards for the use of administrative data, with a view to progressively finalise agreements with other data providers within the Lebanese public administration, instrumental to CAS production of official statistics. A practical exercise could be envisaged with the Ministry of Health and the Ministry of the Interior for the improvement of vital statistics production, as well as – possibly - the finalisation of the existing advanced draft Memorandum of Understanding with the Ministry of Finance.

Within Component 1, CAS will be supported through the development of the following **main activities** and the reaching of the related **results/outputs**:

- Assessment of the existing institutional setup, within the Lebanese public administration and the society at large, and with reference to finalised or ongoing donor supported projects and data demands, in order to draft a development plan for CAS, updated and consistent with the modernisation of its processes and the enhancement of its role as producer of official statistics and coordinator of the national statistical system, where applicable;
- Support in the update of the draft new statistics law, with specific activities at the appropriate political levels to foster awareness of the need to equip CAS with the necessary legal framework without which its activity will inevitably result as ineffective. Even though the successful completion of this action is considered as key to the overall objective of this very project, it is by no means entirely depending on project's inputs and therefore the project will limit itself to those activities which fall within its sphere of decision making and responsibility;
- Support in the establishment of agreements with data providers and in the preparation of drafts Memoranda of Understanding with concerned institutions, whose cooperation is urgently needed to produce quality and not conflicting official statistics ;
- Drafting of a statistical development plan, possibly including a format for the design of a multiannual national statistical plan, with a view to streamline the processes belonging to CAS in coordination with other providers of statistical data. Activities will have to include the setting up of appropriate mechanisms to explain CAS role and advocate for its improvement, like, for example, users' conferences, focus groups with subject matter stakeholders, specific activities to magnify the society's awareness and appreciation of CAS publications, activities, expert views on given topics of interest (including, for example, SDGs) etc.

The project resources allocated to this Component are **14 weeks/missions**.



## Component 2 – Improvement of the IT Department performance.

Component 2 comprises 5 different themes: Website, Web Architecture and applications, Network, Operating Systems and Databases. The following describes the key needs, the agreed activities and the expected results.

**CAS website** is currently hosted at one private company. The same company also designed the site using PHP-Joomla. CAS and Istat agreed that, while hosting of the website can stay outside CAS, the design and routine management of the site must be carried out by CAS IT technicians and by the CAS statistical managers.

The new website will be managed using a Content Management System that will be selected during the project. In the new environment every statistical department will be trained to be able to manage its own contents. Initial support will also be provided for design and communication strategies, training the team that will be responsible for the new website. The new website will include a section in which the data will be presented in user-selected tables and will include additional maps from GIS world. The current version of the website is only in English with a few news, documents and sections also in Arabic: to enhance its use and usability by a wider public, assistance will also try to develop a multilingual version of the site.

Always using web architecture, specific training will target also **Intranet** design and implementation.

For the **application development**, CAS needs to move from the traditional client-server applications toward the standard Web architecture, in which all the application are accessed simply using a web-browser. Istat will support CAS also in the migration of Oracle Forms applications toward Oracle web applications. CAS staff will be trained in web-services techniques that will be used also in the new website development. During the training on application development specific attention will be paid to the re-use of applications, introducing techniques that allow re-use in other statistical domains of software originally developed for specific surveys. Istat robust experience in the development of “generalized tools” will be presented.

To complete the training on web applications, one training will be focused on Limesurvey, an open-source tool for the development of statistical questionnaires to be compiled online. As a pilot exercise, CAS could use Limesurvey to test the first online questionnaires e.g starting from surveys that involve big companies already using the internet.

For the **Network** group of activities CAS shall be supported in the following topics:

- Network security: how to improve the connections between CAS and Internet ensuring the highest levels of security necessary for installations that contain sensitive data. Training will be provided also on security devices like firewalls.
- Network configuration: training will be provided on the configuration of DNS, Domain controller and Active directory
- WiFi: introducing the WiFi technology in CAS building (starting from defined areas/rooms) preserving the needed security levels
- Mail server: CAS should use its own mail server, giving to managers and employees mailboxes @cas.gov.lb. Istat will support CAS introducing IT staff in the management of mail-servers, like those used in Italy (i.e Zimbra)

For the **Operating systems** area CAS will be firstly supported in the management of current Windows servers, with the aim to improve performances and security. Istat will give support and training also on new virtualization techniques, introducing the VMWare product. Additional training will be provided on Linux, installing on some servers (DB? Network) the open-source Operating System.

In the area of **Databases** CAS is currently using an old version of Oracle DBMS (8i): the DB is used to store the data for almost all surveys. Istat experts will help CAS in migrating Oracle to the version 11g (for which licenses are already available). Additional training will be provided for advanced usage of DBMS on topics like



performance, optimization, security and statistical databases. CAS will be also introduced to the use of Data Warehouse techniques, useful for analyzing data and for the dissemination phase.

**Results** produced under this Component can be resumed as follows:

- CAS website redesigned and developed using a modern CMS (Content Management System) that stores the pages in some relational Data base; the new website will contain statistical tables and GIS outputs;
- IT and statistical staff trained to be independent on Website management;
- Training on Web Architecture with migration to Web architecture of some current Client/Server applications;
- First version of some generalized software tools, reusable in many surveys;
- Some web questionnaire on business surveys developed using LimeSurvey;
- New configuration of the LAN network with improved security and performance;
- WiFi network configured with required security levels;
- CAS Mail Server installed and configured using Zimbra product;
- VMWare servers configured with Virtual Machines both Linux and Windows;
- New Windows servers configured with more security and performance;
- Linux server configured for Mail and for Database;
- Oracle servers migrated to Oracle version 11g;
- DBA staff trained on advanced DB techniques: performance, security, optimization , statistical DBs
- Data Warehouse tools installed for first usage and IT staff trained on them.

The project resources allocated to this Component are **38 weeks /missions**.

### Component 3 - SDMX standards and tools for data exchange.

SDMX (Statistical Data and Metadata eXchange) is a statistical and technical standard, developed by seven international organizations (IMF, BIS, ECB, Eurostat, OECD, UN and World Bank ) with the main aim to facilitate the exchange of statistical data and metadata using modern information technology. SDMX in 2013 was published as an ISO international standard (IS 173).

Many data exchange exercises between NSIs and international organizations are already running (e.g. for national accounts data transmission, Millennium Development Goals, Sustainable Development Goals, etc.), but also other use-cases – beyond the initial scope – have been implemented worldwide.

Adopting SDMX standards represent a good opportunity for statistical organisations to reengineer the related business processes in a metadata-driven architecture following a standardization and industrialization approach. In this view, SDMX and all its components (Information Model, Content Orient Guidelines and IT architectures) can be used successfully as key building blocks in an internal Statistical Information System for data reporting, data dissemination, metadata management, secondary data collection, data warehousing.

Within this framework, the proposed **activities** will aim to provide support to CAS in designing and prototyping an efficient architecture for data reporting and dissemination, based on a database built on the SDMX Information Model able to manage and store data and the related structural metadata. The feasibility of using SDMX will be also investigated in the context of the national system of statistical production, to evaluate its efficiencies in data exchange among different national Institutions, thus potentially leading to increased cooperation at national level.

Operationally, CAS will be supported through the following steps:

- Presentation of SDMX to the top-middle management in order to define and set up a possible SDMX strategy fit for CAS. The following issues will be addressed: i) Institutional issues and objectives; ii)

statistical issues; iii) IT-related issues; iv) skill-related issues. Furthermore a statistical domain(s) and the suitable resources will be identified for a small-scale pilot exercise.

- Preparation of the small-scale pilot through an analysis of the current “production” outputs that will be involved in the pilot. This will be achieved through brainstorming with the CAS staff. As a result all the practical steps for setting up the pilot exercise will be identified.
- Design a re-usable and cross-cutting architecture composed by a dissemination/reporting database, a repository of structural metadata, the procedures for loading (from the production units) and export SDMX datasets. Support to CAS will be provided in the form of coaching and advising activities. Tailored training will also be delivered to build up capacities on SDMX and related tools and on how to handle the reporting/dissemination database and the metadata repository.

As **results** of this Component, besides training and increased competences of the staff, CAS will implement a small-scale pilot exercise that could be used in the future as a best practice to estimate the potential efficiencies that may be achieved by full-scale SDMX implementation, such as resources, organisational capacity of staff, and to determine the most appropriate means for potential full-scale implementation, e.g. incrementally, etc.

The project resources allocated to this Component are **8 weeks/missions**.

#### **Component 4 – New methodologies of GIS for statistics.**

Inside CAS the GIS is managed within the IT Department, but GIS technicians are available also inside other departments such as the Household and Social Statistics Department and the Dissemination Department.

Staff involved in this Component is generally well trained and highly skilled in GIS, both for GIS client technology (mostly ArcGIS) and for programming languages such as Java used inside Eclipse IDE, and people are already working inside the production processes.

Among GIS processes implemented, CAS mentioned the 2017 ‘National Population and Housing Census of Palestinians Camps and Gatherings in Lebanon’ promoted by the Lebanese Palestinian Dialogue Committee and carried out by CAS, the Palestinian Central Bureau of Statistics and UNWRA, whose results have been officially released in December 2017.

CAS was involved in the overall organization of the operation, including field work. The survey used 3 level of coordinators and was based on the use of mobile devices to locate the buildings and count the people in the camps. The mobile application was developed by a Jordanian company, RealSoft, and was responsible for tracking the field workers.

The geographic data of the EAs were loaded on the mobile device; the application worked offline, and data were sent to servers later when the connection was available. The results of the surveys were only statistical tables, and not more maps. The results are owned by the UNRWA.

CAS has geographic data, loaded into a GeoDatabase, related to the administrative borders:

- Mohafazats (6),
- Cazas (25 + Beirut),
- Cadastral Areas (1547 CA),
- Enumeration Areas (16119 EAs - Ilots).

The EAs were designed for the 2004 Census of Buildings, Dwellings and Establishments (CBDE) and were updated in 2009. The other data were designed by the Lebanese Army with a commission composed by other institutions including CAS.

CAS don't manage in the IT Department the linkage between statistical and geographical data: linked data are produced in the Dissemination Department where they produce thematic maps, also published on CAS website.

CAS expressed the need of training in GIS to develop applications similar to those used for the 2017 Census of Palestinian camps, including the development of a data capture system to count and locate commercial and public services.

Updating of the buildings is also a priority, whereas the EAs (Ilots) borders seem not to vary in time.

Discussions were held concerning the specific linkage with social statistics and possible GIS application in this sector. At present time CAS has not many ongoing surveys: the most important one being the 2017 Labour Force and Household Living Conditions Survey (LFHLCs), financed by the European Union and implemented with the support of ILO as executing agency (see also Component 6).

For the LFHLC data are captured for a sample of dwellings inside the selected buildings belonging to specific Ilots. 2 visits are done on the field: for the first visit field workers have a map printed on top of Google Earth, i.e. updated. They manually update the buildings and the IDs. In the second visit they go with a list of buildings and dwellings to do the interviews. This process, due to the sample, partially updates the cartography.

Istat will support CAS to optimize the map production for the field workers and to develop a modern process to avoid the multiple visits.

Short term solutions are based on implementing the transformation to overlay the Ilots on top of Google Earth, which is currently done manually due to problems of different map projections.

The long term solution for this kind of problems is the design and implementation of a georeferenced framework, regularly maintained and updated, to which official statistics should always refer. Such frameworks are generally based on the unique address register for the whole country.

On the basis of needs discussion and requests, the project will focus on the following **activities**, which will be a blend of technical support and training on the job:

- Development of GIS application for mobile devices (also working offline);
- Basic, Intermediate, Advanced GIS training. The GIS personnel is already skilled, they work in production processes: commercial training is therefore not the target of this training;
- Training on Web Mapping and new GIS technology;
- Training on the job - Geodatabases for statistics;
- Address Register (best practice and requirements evaluation).

The project resources allocated to this component are **15 weeks/missions**.

#### **Component 5 – Digitalisation of administrative processes and corporate planning for administrative work in CAS.**

Lebanon has undertaken a series of initiatives over the past years to develop a vision, policy and strategy to make use of ICT in pursuing reform both in the Government and nation-wide. These initiatives originated in 1997 with the establishment of the ICT Ministerial Committee chaired by the Prime Minister with the aim to coordinate and oversee developments in the implementation of the ICT agenda in Lebanon.

The e-Government strategy, updated in 2008, is structured around central pillars to provide innovative and internationally proven ways of enabling a more rapid realization of the benefits of e-Government. The objective was to reform government systems and processes leading to better delivery of services to citizens and to economic gains through improvements in productivity.

Within CAS, the Administrative Department is in charge of the implementation of the e-Government strategy. According to Decree n.2728 the Department is composed of the Administrative Section, the Accounting Section

and the Equipment and Supplies Section. The Administrative Section is responsible for ensuring the distribution of correspondences, archiving and managing other internal services. The main issue is managing staff and personal matters and files.

The Accounting Section is responsible for preparing the draft budget and performing transactions (payrolls and payments) related to the budget implementation and account keeping. The Equipment and Supplies Section is responsible for procurement and maintenance of technical and administrative equipment and supplies.

All administrative functions are currently managed in a traditional way: information is paper-based and all the administrative processes are manually handled.

CAS required support for the modernization of its administrative organization since, consistently with the general e-Government strategy, digitalisation is an important issue for the institute. The purpose of this component is to support and improve the administrative functions of CAS with an innovative programme of digitalisation and strengthening of administrative processes at corporate level.

Activities will aim at introducing methods, techniques and tools of preservation of documentary 'heritage' and IT solutions to manage properly administrative processes and official documents.

CAS will be supported on the introduction to basic issues regarding accessibility, correct managing and traceability of administrative information. The introduction of electronic format documents will be accomplished through the development of complete and detailed metadata system for staff information and all administrative documents. The digitalization will include a metadata system, automatized workflow and the introduction of openly defined format widely used and supported. All electronic folders and documents shall be suitable for long term preservation and easy migration when the need arises. Activities will aim to produce multiple copies and to store to manage them in professional IT repository in different locations and regularly checked.

Digitalisation of the administrative processes and of administrative data, actually managed in a traditional way, is surely an essential task of Component 5, and it can be considered a key to enabling implementation of other corporate process in CAS. Currently CAS administrative functions regards only the management of support activities to the organization. Component 5 will include the analysis and modelling of a corporate planning process to support the improvement of a corporate wide view of CAS activities and resources.

The component will develop along **4 main activities**:

1. Corporate planning: define demand management processes and medium term activities planning framework.
2. Staff accounting system and folders recording. This activity regards the support to the introduction of staff accounting system and staff folders recording.
3. Electronic administrative procedures (correspondence and procurement). This activity targets the support to the digitalisation of administrative processes actually manually managed on paper, correspondence and procurement, with the introduction to an asset and document management system
4. Training on digitalization and management of administrative processes. The activity regards the reinforcement of skills on digitalization, corporate planning and management.

The related **results** of the activities will be:

- Support to the introduction of staff accounting system and staff folders recording
- Support to the introduction of asset and document management system and a digital workflow
- Reinforcement of CAS skills, in particular of staff from the Administrative Department, on digitalization and corporate planning and management.

The project resources allocated to this Component are **12 weeks/missions**.

## Component 6 - Improved social statistics.

The Household and Social Statistics Department has implemented in the recent years a number of activities, mainly funded by international donors and with significant technical support from their side. This operational modality has allowed to carry out some important surveys, such as the EU-funded Labour Force and Household Living Conditions (LFHLCS) (currently on the field), the MICS – Multiple Indicators Cluster Survey supported by Unicef (the last one in 2009) and the Census of Buildings, Dwellings and Establishments (2004).

The present situation sees CAS engaged in the implementation of the new round of the LFHLCS, managed by ILO as executing agency. The budget allows to hire short-term experts for specific tasks: this was done for the sample design and to define the labour module of the questionnaire. Further external expert's missions are planned for the elaboration of weights and final estimates.

The sample design is a two stage sample, where Ilots (EAs) is the first stage and dwellings is the second one.

The sample frame is based on the 2004 Census of Buildings, Dwellings and Establishments. It is quite outdated, hence an huge operation of revision and update was started already last year on the sampled Ilots, including:

- update of the maps through images available on Google where the Ilot borders are drawn;
- on the field verification of each building usage (residential or other);
- on the field enumeration of the dwellings and their characteristics (main or secondary home of the household).

Data collection started in January 2018 and will end in December 2018, organized in 4 quarters, using the PAPI technique.

Possible future activities include a new wave of the MICS, for which Unicef is undertaking a fund raising, and it is not expected to start before beginning 2019.

In this context, the discussion with CAS highlighted **4** main lines of **activities** for this Component, some in cooperation with other actors involved in the current survey:

### - **Training on methodologies and techniques to improve household surveys**, including:

- o Training on the job on data checking and imputation, based on the first provisional data for the first quarter of the survey (expected by July 2018);
- o Training on quality procedures, with a focus on quality controls for PAPI, to be applied already to data collection for the ongoing survey.

### - **Support to improve availability and quality of analysis and dissemination of household surveys data (online and paper publications)**, organised as follows:

- o Preparing dissemination of preliminary results, including analysis of possible new indicators and disaggregation of Living Conditions and Labour force statistics with special attention to international standards and national comparisons. It is based on the questionnaire already defined and the first provisional data for the first quarter of the survey (expected by July 2018, and strongly requested), on national needs and on ILO guidelines.
- o Evaluation of preliminary results (first quarter) and drafting a synthetic presentation of main findings. It shall include a comparison with previous surveys on Living conditions and Labour market issues in Lebanon. Results for the first quarter survey should be available in September 2018.
- o Evaluation of final results and draft of the final report, considering that final results should be available by September 2019.

- Revision of the content of the social statistics section in the institutional web site, including the design of more informative and user-friendly tables or a data warehouse, if feasible, with special focus on the results of the current survey. Timing and modalities will also depend on the overall revision of the institutional website under Component 1.

If new data become available from other surveys such as MICS (not before 2020) the project will consider the possibility to support CAS also in the evaluation and dissemination of such new survey results.

- **Training on statistical software (R )**, namely training on the job on R procedures that could be used in different survey phases.

This training could be targeted not only to staff of the social statistics department, but also to other CAS staff (see interconnections below), since in the short term the department staff will be very busy with the ongoing survey, which foresees the use of SPSS for elaborations. Hence, the training on R is not a short-term priority and is planned in the second part of the project.

Still, the introduction and use of R remains important, due to the high quality and reliability of the available R tools and the advantages of having a free and open source software, free from any license cost.

- **Inter-institutional cooperation for the use of administrative data (to be confirmed)**. Within this activity, it was discussed and proposed to explore possible cooperation with the Ministry of Health and the Ministry of the Interior for the improvement of vital statistics production.

Civil registration is managed by the Ministry of Interiors, with no attention to its statistical features and potential use, which results in discrepancies in vital statistics released by CAS and the Ministry of Health.

Hence this activity is added, in agreement with CAS, but its feasibility shall be confirmed, being it subject to formally established cooperation among the institutions (see also Component 1).

In terms of **results** the activities foreseen within this component will seek improvement in the staff skills on data checking and editing, an overall improvement in estimates derived from household surveys and in the dissemination of results.

More in detail, outputs for this component will be:

- Specific training and training on the job for CAS staff;
- A report on results from the first quarter of the Living conditions and Labour force survey;
- The final report on the LFHLCs results;
- A report on results from the next round of MICS (tbc);
- Revised and updated pages on the institutional website presenting statistics on Household and Social situation in Lebanon, in connection with Component 2 as regards the website development;
- Improved vital statistics (if confirmed, synergies will be established with Component 1).

The project resources allocated to this Component are **20 weeks/missions**.

#### Technical documentation.

Specific care will be devoted to drafting and sharing of documentation for all the activities. This will represent key deliverables of the project and remain as a reference for CAS for the future, serving the sharing and reuse of improvements, innovations introduced and results, and therefore their ownership and sustainability.

In addition to the results listed for each Component, overall project deliverables will be:

- Mission reports;
- Recommendations to follow up technical assistance activities;

- Documentation and materials of trainings and study visits;
- Six-monthly reports and Final report.

## 2.2. Resources and implementation.

According to the budget assigned, Istat will provide technical assistance, training and training on the job to CAS staff for a total of **107 working week/person** plus **10 for coordination and management** during the 36 months of project duration. In addition, **3 study visits** are foreseen during the project time life.

As for concrete implementation, the project results will be achieved through:

**Technical assistance missions.** Istat experts selected for each activity will hold coaching and advice activities, in order to transfer their know-how to their CAS counterpart and to introduce improvements and innovations in CAS processes and support CAS staff with the overall goal of development of the targeted sectors.

Comparative analysis will be part of the coaching activity in order both to present practices which guarantee compliance with international standards and to identify specific strengths and weaknesses of the current system.

**Tailor made training programmes.** As already mentioned for the single components, training courses and programmes will be at the core of most of the activities. They will be designed and organised in close cooperation with CAS and always taking into proper account each of the key phases of training cycles.



Where relevant, experts will provide on-job training on the application of the proposed methodology and prepare written recommendations to follow up activities. Proper attention shall be paid to training equipment and facilities to ensure training effective delivery.

**Study visits.** Study visits will be a valuable mean to learn best practices and to acquire direct knowledge of the Italian experience in the sectors targeted by the project. They will have beneficial effects not only in technical terms, but on the overall professional growth of CAS staff. The subjects and topics of the study visits will be agreed with CAS at a later stage.

**Small-scale pilot exercises.** Based on the CAS indications and feasibility, Istat experts will provide advice to in preparing small-scale pilots. A pilot is the best means for CAS to acquire an understanding how a specific process can be performed using the suitable tools, and to develop the capacity of staff within the organisation who may be involved in subsequent full-scale implementation. Practical hints / advice for developing a pilot exercise based on previous experiences from other countries will be provided.

**Workshops and seminars.** When relevant, and in agreement with CAS and AICS, events such as workshops and seminars could be organised. Such events can support project visibility, promote CAS role and contribute to the overall achievement of results, especially as regards advocacy of official statistics and cooperation with other



national and international actors, or when particular developments or innovations introduced may be promoted and exchanged as best practices.

Senior and junior experts from Istat with the proper professional and technical requirements will carry out the activities as per the working plan agreed with the counterpart and harmonized with other international support, taking into proper account the absorption capacity of CAS. When necessary and feasible, Istat will also ensure distance support and assistance in between missions.

Institutional building will be based on the introduction and application of methodologies and techniques appropriate for the national context and aligned with international standards and best practices.

Together with the beneficiary, proper attention will be also paid to the identification of the resources CAS involve in the project. Appropriate commitment and availability of the officials and staff is essential to ensure effectiveness, ownership and sustainability of results and outcomes, especially in a situation of general understaffing as it is the case for CAS.

The allocation of resources/missions is liable to changes against newly arisen needs or reprioritisation of needs, that will be assessed and agreed with the counterpart.

### **2.3 Organisation and management.**

The project management and organizational foresees :

- the identification of **Component Coordinators** from each side and the setup of project team for each Component. This aims at streamlining workflows and communication and decisional processes and channels.

The following organisation has been set up for project responsibilities:

- Component 1: Dr. Maral Tutelian , General Director , CAS  
Ms. Marleine Bakhos – Head of the Accounting Section, CAS  
Ms. Michelle Jouvenal, President’s Office, Head, Istat
  
- Component 2: Mr. Ziad Abdallah – Statistician – Acting head of the IT Department, CAS  
*1 person to be identified, CAS*  
Mr. Carlo Vaccari, Division for international affairs, Senior Researcher, Istat
  
- Component 3: Mr. Ziad Abdallah – Statistician – Acting head of the IT Department, CAS  
*1 person to be identified, CAS*  
Mr Francesco Rizzo, Senior Researcher, Istat
  
- Component 4: Mr. Ziad Abdallah – Statistician – Acting head of the IT Department, CAS  
*1 person to be identified, CAS*  
Ms. Pina Grazia Ticca, Division for environment, territory and register of geographic and territorial units, Senior Researcher , Istat
  
- Component 5: Ms. Marleine Bakhos – Head of the Accounting Section, CAS  
Ms. Silvia Losco, Division for strategic planning, Head, Istat
  
- Component 6: Ms. Lara Badre – Sociologist, CAS  
Ms. Najwa Yaacoub – Statistician – Acting Head of National Accounts Department, CAS  
Ms. Maria Pia Sorvillo, Division for data analysis and economic, social and environmental research, Senior Researcher, Istat.

- the setup of a **Project Steering Committee**, to meet regularly on a 6-monthly<sup>2</sup> basis to oversee and monitor project progresses, to assess and approve possible changes (newly arisen needs and /or adjustments), to assure smooth and effective implementation. CAS, AICS and Istat compose the committee.

Based on the technical inputs provided by experts and component coordinators, the Steering Committee will produce and approve 6-monthly reports detailing activities, progresses and planning for next reference period.

The reports will include a financial section for approval from AICS.

### 3. Coordination with other international support and actors.

As already highlighted, CAS strongly relies on external funds and support for its activities (survey implementation, methodology, training, equipment), to which add recent government cuts on PA budgets. Cooperation with other actors will be constantly sought, since it is both useful, to create synergies and exploit experiences, and necessary given the small size of the institute and the importance of not overloading staff with overlapping, if not conflicting activities.

This is particularly evident for Component 1 on institutional development, due to its overarching nature, and Component 6 on the improvement of social statistics, where it was agreed to pool resources and coordinate activities on existing processes .

Concerning the support to the LFHLCs in particular, a similar successful experience was that of Myanmar, where Istat collaborated with United Nations Development Programme for the implementation of the Myanmar Business Survey: the different skills of an international organisation and a national statistical institute were combined in a complementary and effective way, with each group matching their strengths to different segments and phases of the operation.

### 4. Main issues.

As for main **risk factors/assumptions** that may impact on or affect project implementation and results, the following have been identified in this initial phase:

- One of the main risk factors is, again, CAS understaffing and the consequent likely workload on a restricted number of people. This is in particular evident for the IT team, involved in several activities pertaining different components, and for many of the middle management positions currently vacant, and subject to rigid 'unwritten' rules for placements and assignments. Since the perspective of resource acquisition is not an option in the short-term, the project will overcome this issue with an attentive planning and organisation of activities, according to which CAS shall guarantee that the adequate resources are properly allocated and made available when necessary. Similarly, documentation related to each activity, including agreed terms of reference, will be circulated and shared in due time, in particular before activities take place.
- An overarching risk with potential impact on all the activities, but in particular on Component 1, is that no effective cooperation is concretely achieved and established with other authorities and bodies within the project time life. This is much more true for actions related and pertaining to legal and regulatory issues. Being this risk external, CAS authoritativeness, proactive engagement and advocacy will be essential.

As to project **strengths and opportunities**, the **interdisciplinary design**, both in terms of activities and results, is a value added and a trigger of efficiency gains and multiplier effects of the single actions and among Components. In addition to those already pointed out in the GOP, below are reported again some interconnections that will be exploited:

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<sup>2</sup> Instead of the 4 months originally proposed.

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- training on statistical software such as R, currently focused on social statistics and within Component 6, could be considered also under Component 2, extending it to CAS staff from other Divisions.
  - similarly, revision of the contents of the social statistics sections in the institutional web site, including the design of more informative and user-friendly tables or a data warehouse for the dissemination of LFHLCS results, is linked to Component 2.
  - the setting set up a systematic update process for the sample frame should be considered also under Component 4.
  - collaboration with other authorities (e.g Ministry of Health and Ministry of Interior for vital statistics) falls within the aims of Component 1.

Another success factor serving the overall objective of supporting CAS in transitioning to a more central role within the country and raising its profile internationally will be the approach Istat builds its cooperation activities on: the competences and skills of a national statistical institute are deployed to support the capacities of a 'twin' institution, encouraging knowledge transfer, reuse, and sustainability, with the overall commitment to building ownership rather than providing consultancy-like services.

Finally, sound commitment from both partners, together with the necessary degree of flexibility, constant peer-to-peer dialogue and assessment of project progress against national developments, will contribute to the project success.

Rome, 19 March 2018

The Project Manager

Tiziana Pellicciotti



## 5. Workplan<sup>3</sup>

Lebanon - Improvement of national statistical system strengthening the Central Statistical Administration  
Implementation period: 5 February 2018 - 4 February 2021 (timeframe may change subject to GoL approval)

**Expected results:**

1. Institutional development
2. Improvement of IT Department performance
3. SDMX training and introduction
4. Introduction of new methodologies of GIS
5. Introduction of digitalization processes and corporate planning for the administrative work
6. Improved social statistics.

	Attività	R*	Anno 1				Anno 2				Anno 3				Week/Person
			1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	
<b>1</b>	<b>Institutional development</b>														<b>14</b>
1.1	Assess the current CAS role.	1													4
	Establish a framework of agreements for improved coordination of the statistical function.	1													6
1.3	Support CAS in fostering its strategies at national level.	1													4
<b>2</b>	<b>Improvement of the IT Department</b>														<b>38</b>
2.1	Website redesign and intranet.	2,1													10
2.2	Web applications and web services.	2													8
2.3	Network (security, wifi and email server).	2,5													6
2.4	Operating systems (Win server, VM ware, Linux).	2													6
2.5	Database management (performance, security, migration to O11g).	2,4,6													8
<b>3</b>	<b>SDMX standards and tools for data exchange</b>														<b>8</b>
3.1	Introduction to SDMX: use cases.	3													2
3.2	Training on SDMX for statisticians and IT staff.	3													4
3.3	Pilot exercises on CAS data.	3,1													2
<b>4</b>	<b>New methodologies of GIS for statistics</b>														<b>15</b>
4.1	Training - GIS for statistics (Basic, Intermediate, Advanced).	4,6													4
4.2	Training on Web Mapping and new GIS technology.	4													3
4.3	Training on the job for developing GIS Web Application for the survey fieldwork.	4,6													3
4.4	Training on the job - Geodatabases for statistics.	4,6													3
4.5	Address Register (best practice and requirements evaluation).	4,6,1													2
<b>5</b>	<b>Digitalisation processes and corporate planning for the administrative work in CAS</b>														<b>12</b>
	Corporate planning: define demand management process and medium term activities planning framework.	5,1													4
5.2	Staff accounting system and folders recording.	5													3
5.3	Electronic administrative procedures (correspondance, procurement).	5													3
5.4	Training on management and digitalisation of administrative processes.	5													2
<b>6</b>	<b>Improved Social Statistics</b>														<b>20</b>
6.1	Training on methodologies and techniques to improve household surveys Support to improve availability and quality of analysis and dissemination of household surveys data (online and paper publications)	6													6
6.2	Support to improve availability and quality of analysis and dissemination of household surveys data (online and paper publications)	6													4
6.3	Training on statistical packages (R)	6													4
6.4	Inter-institutional cooperation for the use of administrative data (TBC)	6,1													6
	<i>N. of weeks per year (as per Agreement)</i>														<b>107</b>
<b>7</b>	<b>Project management and coordination</b>														
7.1															
	<i>N. of weeks per year (as per Agreement)</i>														
	<b>Study visits (n. 3)</b>														

\* Target result

<sup>3</sup> The timetable does not details allocation of missions during the time frame since formal project start is still depending on the formal approval by the Government of Lebanon. A detailed timetable will be submitted once the official start of the project for CAS is communicated. The Excel version is in Annex 2.

## 6. Budget

Budget (Istat Project):

		Units	Quantity	Unit cost (€)	Total (€)
<b>1</b>	<b>ISTAT</b>				<b>508.686</b>
1.1	Technical assistance and training	Weeks	107	3.311	354.277
1.2	Travels for Technical assistance and training	n.	107	400	42.800
1.3	Management and Coordination	Weeks	10	3.135	31.350
1.4	Travels for Management and Coordination	n.	10	400	4.000
1.5	Study visits to Italy	n.	3	10.005	30.015
	<b>SUBTOTAL</b>				<b>462.442</b>
1.5	Overheads	10%			46.244

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## LIST of ACRONYMS

AICS	Italian Agency for Development Cooperation
CAS	Central Administration of Statistics of Lebanon
CAWI	Computer Assisted Web Interview
CBDE	Census of Buildings, Dwellings and Establishments
EAs	Enumeration Areas
GIS	Geographic Information Systems
GOP	General Operational Plan
ILO	International Labour Organisation
Istat	Italian National Institute of Statistics
LFHLCs	Labour Force and Households Living Conditions Survey
MICS	Multiple Indicators Cluster Surveys
PAPI	Paper Assisted Personal Interview
SDMX	Statistical Data and Metadata eXchange)
Unicef	United Nations Children's Fund
UNRWA	United Nations Relief and Works Agency for Palestine Refugees

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## ANNEXES

1. Minutes of the mission 0.1 (26 Feb – 1 Mar 2018)
2. Workplan .xls format