

BMB - LDK
Programme Monitoring Consultants to the
Office of the Minister of State for Administrative Reform
Beirut - Lebanon

Memorandum

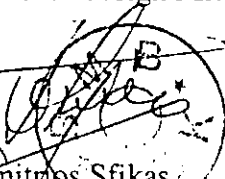
To: Dr Raymond Khoury, TCU Director, OMSAR
Mr. Atef Merhi, IDU Director, OMSAR
Mrs Roula Kabbani, EU Project Coordinator, OMSAR

From: Dimitrios Sfikas, PMC Team Leader

Date: 15 July 2002

Subject: Mission Report to design the database of the CAS (2)

Please find attached for your review and approval the Second Mission Report to design the database of the Central Administration of Statistics of the Short term Expert for Database design Mr. Arij Dekker.


Dimitrios Sfikas
PMC Team Leader

الجمهورية اللبنانية
مكتب وزير الدولة لشؤون التنمية الإدارية
مركز مشاريع ودراسات القطاع العام

Republic of Lebanon
Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

ARLA Programme

(LBNB7-4100/IB/97/0687)

Document for discussion, and not binding the OMSAR/PMC or the EC

**Assistance to the Central Administration of Statistics
(CAS)**

**Report of mission 2 to design
the database of the CAS**

June 26 – July 6, 2002

Programme Monitoring Consultancy

Arij Dekker

Short-term Expert for Database

OMSAR, Beirut, July 2002

Summary:

This short mission centered on the preparations for the national Census of Buildings, Dwelling and Establishments (CBDE), the field work for which will be conducted during the months of August and September. This Census will supply the information for updating several databases that provide essential sampling frames for CAS' surveys of households and establishments. It is also a valuable statistical undertaking in its own right.

Among the issues covered were: the data capture programme, the system for progress reporting, quality control issues, and a revision of the project calendar.

Some time was also spent on improvement of the overall monitoring system of the ARLA-CAS project, and to update technical specifications for the long-postponed equipment tender.

Finally, the visit served to prepare for the longer mission that is scheduled during the month of September.

Terms of reference

Proposed specific objectives of the mission

Given that the fieldwork for the Census of Buildings, Dwellings and Establishments (CBDE), the specific objective of the proposed assignment is to assist relevant CAS staff in implementing the Oracle database and the geographical database GIS for the CBDE as recommended by the consultant and the GIS expert, Mr Brown, in previous missions. This is especially to insure the function of these databases as sampling frames for household and economic surveys respectively and as a basis for structural statistics on buildings, dwellings and economic establishments.

Main activities to be undertaken

In cooperation with the CAS staff the Database Expert's main activities will be:

- a) Check and advise on all work steps that the IT-Department has/will be carrying out to establish and maintain the CBDE Oracle database. This includes the structure of both databases for the buildings and establishments, data entry programs, quality control and any other relevant programs for the Census.
- b) Advise on all practical steps for updating the GIS database using the satellite images, digitising the ILOTS and numbering of buildings on these ILOTS.
- c) Advise on the establishment of the connection between the geographical database and the Oracle database.
- d) Mission tasks are to be carried out in coordination with the Project Coordinator, Mr Dabbagh, who will in his turn contact and brief the Project Team-Leader, Prof Johansson, according to his availability.

Location

Central Administration of Statistics, Beirut.

Expected duration & start date

Six weeks divided into two missions until September 2002. The first mission starts July 1 or earlier. The timing of the second mission in August or September will be decided with the consultant and based on progress of the work in the CAS.

State of affairs

Since the first mission of this expert in January/February 2002, the project had been hampered by a prolonged standstill as a result of various difficulties. The reasons of this interruption and their eventual solutions are described in detail in mission reports by Technical Assistance Team Leader Sten Johansson. Therefore they will not be discussed here. Suffice to say that in the month of June the project was moving again, although several valuable months had been lost.

As a result of the delay, the plan of conducting an economic survey of establishments in 2002 had to be postponed. This will allow to concentrate a maximum of available resources on the Census of Buildings, Dwellings and Establishments (CBDE), preparations for which are now in full swing.

A consequence of the delay had also been that the data processing equipment procurement tender, described in the preceding report, had not been launched. The Census will have to be processed with the meager equipment resources currently available to CAS, and whatever can be obtained on loan from other Government agencies. Nevertheless, the tender will proceed, as the equipment is highly required for the functioning of the CAS as a viable institution in the coming years.

Brief discussion of the activities undertaken

The expert worked narrowly with Ms. Elissar Nasser on the data-entry program for the census, which is being developed in Oracle Forms software. Several issues involving the logical structure and the coding of 'triggers' were resolved. A usable program is now gradually becoming available, but it requires further work to include better intra- and inter-record consistency checking.

Several paper forms (Appendix 2) were developed, which can serve to bring up information about the progress of census field activities from the Enumerator level, via the Team leaders and the Muhafaza supervisors, to the central co-ordinating office in Beirut. These forms were developed in MS Visio. They have been transferred in electronic format to Ms. Siba Haidar, for further improvement, if necessary, and to be translated into Arabic.

The role of the Controllers was discussed, and some relevant procedures were documented (Appendix 3). They take a crucial role in quality control at the field level. Working independent from the regular field staff, the Controllers are to monitor the quality of mapping and field enumeration. They investigate the work accomplished in Ilots (enumerations areas), according to a sampling scheme that makes sure every Enumerator's efforts will be checked, and an overall quality assessment can be obtained for each Muhafaza and its urban, semi-urban and rural parts.

Similar quality assurance is required in other operations, such as the coding and data capture operations. The responsibility for census quality control will be assigned to a separate unit in the CAS.

As a consequence of the delays, the calendar of census activities had to be revised. The pilot census now will start on July 15, which leaves little time for its evaluation. Nevertheless it is expected that valuable lessons will be learned that can be used during the

actual field work for the census.

As the equipment tender had been delayed, the specifications needed to be updated in line with technical developments in the rapidly advancing field of data processing technology. Certain requirements of CAS had also somewhat evolved. The task of rewriting the specifications was taken care of in co-operation with Messrs. Abdallah and Catinis. Available specifications from recent other tenders launched by the PMC were of much use.

Detailed satellite maps showing the buildings on the ground still are not on-hand for certain parts of the country, which is a matter of serious concern. Project funds have been assigned, and it is hoped that the photographs – originating from Russian satellites - may still be obtained in time. If not, a second-best scenario will operate in which existing older paper field maps from 1996 will be used. These only show buildings that were in existence at the time. Since there have recently been extensive construction activities in Lebanon, this is far from ideal for certain areas under heavy development. As a third alternative there are Indian satellite pictures, which are, however, of inadequate resolution.

On an other issue, it was found that the project lacked an up-to-date logframe reporting file, as usually required to monitor the progress of EU programmes. The expert contributed relevant information for the issues he has been concerned with. In the context of planning for future years, a tentative estimate of further computer equipment needs (apart from the tender discussed earlier) was also provided.

Conclusions and recommendations

Preparations for the CBDE are now fully under way. This will provide an excellent opportunity for the CAS to demonstrate the ability of the organisation to deliver results. While the unfortunate programme delays - especially in the equipment component – do not make this any easier, there appears to be sufficient motivation and momentum to succeed. Making the CBDE into a success should be one of the principal objectives of CAS for the coming months.

Annex 1. Contacts**Central Administration of Statistics**

Ms. Maral Tutelian	Director General
Ms. Najwa Yacoub	Statistician
Nader Keyrouz	Statistician
Ziad Abdallah	Statistician – Head of ICT Department
Daher Doumit	Statistician
Ms. Elissar Nasser	Analyst
Ms. Siba Haidar	Analyst
and other members of the CAS staff	

Eurostat

Ms. Aline Bouzergan	EU Programme Management
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Technical assistance team, Arcadis BMB

Hilmi Dabbagh	Economic statistics
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Project management (Beirut)

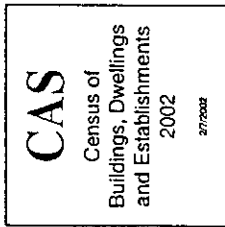
Dimitrios Sfikas	PMC Team Leader
Christian Le Blanc	Project Management Arcadis BMB
Lian Catinis	IT Expert
and other members of the BMB and PMC staff	

Project management (The Netherlands)

Pieter Feenstra	Co-ordinator
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Supervisor report

Periodic Muhafaza Supervisor Report



Muhafaza ----- Date work started (dd/mm/yy)
 Supervisor ----- Date of this report
 ----- Date all work completed

CAS registry to sign here when Supervisor has transferred all Enumerator and Team Leader reports and completed questionnaires -----

Team leaders under this Supervisor	Code	Name	Enumerators (total)	Ilots		Buildings covered	Units covered	Dwelling units covered	Establishment units covered	Remarks (i.e: finished, still working, problem description, ...)
				Total	Completed					
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CAS – Census of Buildings, Dwellings and Establishments

Duties of the Controller Teams

The Controller Teams are independent from the hierarchical census field staff. They will verify that the field work is of acceptable quality. For this purpose they work under the supervision of the Quality Assurance Team at CAS Headquarters.

The Control operation will be headed by a Statistician/Principal Controller at CAS Headquarters. There will be one Control Team per Muhafaza, under the direction of a Chief Controller. Each Muhafaza consists of a number of Ilots. The Ilots will be categorised as urban, semi-urban or rural.

The Quality Assurance Team will supply the Principal Controller with a list of Ilots to be controlled for each Muhafaza (urban, semi-urban and rural areas). This list will be prepared such that for each Enumerator at least two Ilots are being covered, and that a representative sample from each of the three Muhafaza sub-areas is obtained..

The controller will complete the full buildings questionnaire for the Ilot. After that, only a subset of minimum 25% of the buildings will be checked for dwellings and establishments, as follows: Building 1 – skip three buildings – Building 5 – skip three buildings – Building 9, etc. If a particular building does not exist, it will not count as being skipped, for example if building 3 is not there, the control sequence will be 1 – 6 – 10.

After controlling an Ilot, the Controller completes a questionnaire (attached), which is submitted to his Chief Controller. If the Chief Controller decides that the quality of the Ilot is insufficient, he/she will contact the Supervisor of the Muhafaza field staff. The Enumerator will get one chance to improve the work. If within a reasonable delay (for example one week) acceptable results for the Ilot are not received, the Enumerator will be replaced.

Acceptability criteria:

1. The list of buildings is correct to within 5%;
2. The list of dwellings is accurate to within 5%;
3. The list of establishments is accurate to within 5%;
4. The percentage of errors in recorded attributes for buildings, dwellings and establishments is less than 10% (including omissions).

What are errors?

A building exists in the Ilot but it has not been recorded;
A "phantom" building has been recorded;
A building has been recorded, but it is situated in another Ilot;
An establishment exists, but was recorded as a dwelling;
The type of economic activity of an establishment is mistaken.

CAS – Census of Buildings, Dwellings and Establishments

Field Controller Questionnaire

Republic of Lebanon
Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

Muhafaza: _____

Name and code of Controller: _____

Code of the Ilot:

A1. Buildings correctly recorded:	
A2. Buildings recorded which do not exist in the Ilot:	
A3. Buildings omitted:	
A4. Building error rate (A2+A3)/A1:	
<i>Only for the sample of buildings:</i>	
B1. Dwellings correctly recorded:	
B2. Dwellings recorded which do not exist in the building:	
B3. Dwellings omitted but which do exist in the building:	
B4. Dwelling error rate (B2+B3)/B1:	
<i>Only for the sample of buildings:</i>	
C1. Establishments correctly recorded:	
C2. Establishments recorded which do not exist in the building:	
C3. Establishments omitted but which do exist in the building:	
C4. Establishment error rate (C2+C3)/C1:	
D1. Total number of building attributes recorded:	
<i>Only for the sample of buildings:</i>	
D2. Total number of dwelling attributes recorded:	
D3. Total number of establishment attributes recorded:	
D4. Total number of attributes recorded (D1+D2+D3):	
E1. Erroneous or omitted building attributes:	
<i>Only for the sample of buildings:</i>	
E2. Erroneous or omitted dwelling attributes:	
E3. Erroneous or omitted establishment attributes:	
E4. Total number of erroneous or omitted attributes (E1+E2+E3):	
F1. Attribute error rate (E4/D4):	

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